

DR BUTEYKO'S DISCOVERY

Volume 1 - The Destruction of the Laboratory

by

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Dr Buteyko and his complexator, 1961

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CHAPTER 1

The accident

This jeep will be the death of me, thought Dr Buteyko, and he tried to shake off his companion's hand.

"Get in, Dr Buteyko, for goodness' sake!" Mutin, his assistant, nudged him awkwardly towards the vehicle. Short and thickset, he barely reached the other man's shoulder. The Doctor was boyishly fit, despite his 38 years.

"But where is there to sit?" Buteyko nodded at the driver, whose stooped figure could just be made out emerging from the vehicle in the darkness of the quiet May midnight. "And perhaps he doesn't want to give us a lift to the hospital."

"I told you I'd take you." Stifling a cough, the driver turned his face to one side, obscuring what was already barely visible in the deepening gloom. The Doctor cast a helpless glance over the poorly-lit station forecourt - perhaps for the last time, who could tell? It seemed the jeep had deliberately been parked beyond the feeble pool of light that fell on the tarmac, still gleaming from the last spring downpour. Suddenly Buteyko remembered: he had predicted that he would be assassinated today, 15 May 1961, and that it would probably happen in Novosibirsk, a place he had disliked from the word go and never taken to since. Both presentiments had come together and there could be no mistaking their portent.

On 14 April, at a morning planning meeting with his staff in the Laboratory of Functional Diagnostics, he had told them he would not be around much longer, and added, to his colleagues' distress, his hair unkempt after a sleepless night:

"... I may have less than a month. I know the medical establishment - or at least its elite - will not forgive me for my Discovery."

He had delivered a whole speech, with his staff listening intently - and how they had listened! After the initial two or three gasps from the women, scarcely anyone interrupted. His fifty or so white-coated colleagues listening that morning knew how the medical mafia got even with outsiders - and, with Buteyko, it had some scores to settle! His Discovery reduced the influence of surgery so dramatically and consigned so many rare medicines to the chemists' shelves that the mafia would consider eliminating him a small price to pay. Naturally, his speech would not be published anywhere: you don't put those sort of things into print. On paper you say you are fighting to improve public health, but the staff at the planning meeting knew how the heads of genuine crusaders would roll from time to time.

"I beg you," Buteyko raised his clenched fist, "write down, in as much detail as you can, what each of you must do in the event of my death."

His colleagues wrote everything down with heavy hearts, very seriously, very professionally. Love or hate Buteyko as a man, there was no denying that his

Discovery of the Diseases of Deep Breathing was turning contemporary medicine completely on its head. Until now, no-one anywhere had devised a genuine cure for asthma, but Buteyko had conquered not only asthma, but dozens of other equally complex conditions, some of them far more serious - like hypertension, ischaemic heart disease, TB and diabetes.

Just why he had announced that his life would be at risk in the month to come Buteyko himself could not explain: he had the gift of second sight and that was all. Many of his predictions and prognoses frightened the people in his circle because they were so often correct. But this one-month threat of assassination seemed different - although there were real reasons for thinking he had little time left, no doubt about that. He had twice suffered massive vomiting after eating at the hospital canteen with his assistant Mutin. As a medical man, Buteyko knew that for anyone else the dinner would have meant one thing: sudden death from food poisoning. At least that's what would be written under "Cause of Death" in the clinic - nothing else. Professor Pomekhin, his boss, would not allow any other explanation, even if a potassium cyanide capsule had been found in his soup bowl.

Dr Buteyko's food had clearly been doctored with something more subtle, not immediately amenable to forensic examination. And what sort of post mortem would he get? They'd discover what they liked! But Mutin and his other poisoners had failed to realise one thing: someone on Buteyko therapy does not succumb to poison so easily. A body trained in the Volitional Elimination of Deep Breathing develops exceptional immunity to poison among other things - but Pomekhin did not know that! Even so, before resorting to poison, the Boss had tried the time-honoured 'soft' option of locking Buteyko in a loony bin with all the other recalcitrants. How many daring, creative, people had perished like that! Ignaz Semmelweis for one - a gynaecologist and obstetrician tragically poisoned by surgeons in the 19th century. Pomekhin, incidentally, was also a surgeon and only too aware of how scalpel merchants could get even with someone they didn't like. Semmelweis had been locked away in a psychiatric hospital then destroyed with 'tranquillising' injections, far from prying eyes. Easy-peasy! There was once a man named Semmelweis. And then, 'unfortunately', there wasn't.

The poor sod had not stepped very far out of line, at least not by modern medical standards. He had only asked surgeons to wash their hands before they operated, preferably with chlorine solution. Nothing too heinous about that, you'd think, washing your hands before diving into a patient's abdomen...but no! The closed-shop artisans with the scalpels paid no heed to the voice crying in the wilderness. For 13 years, nasty pieces of work like Carl Braun hounded him for his good idea, then went for broke - and consigned him, with his love of cleanliness and hygiene, to the company of the insane.

True, Semmelweis was not just asking them to wash their hands out of good manners. In those days, new mothers all over the world died of blood poisoning (sepsis) during child birth, something that was explained in a variety of ways: the moon hadn't risen correctly during delivery, or the priest had been late with his prayers. Then, one day, a friend of Semmelweis's died after carrying out a post

mortem on a woman who died of septicaemia in childbirth. The friend had not been giving birth - but he *had* nicked his right hand while carrying out the post mortem. Semmelweis concluded that corpses were poisonous, and urged doctors to wash and disinfect their hands after carrying out a post mortem to prevent them infecting live patients.

But academics like Braun thought all this was blasphemy. What was the man talking about! Surgeons all over the world washed their hands after they operated, and now this chap was asking them to do it before! Twenty years after his Discovery, when Semmelweis was already dead, he had a successor in Professor Lister. True, Lister proposed carbolic not chlorine disinfectant, but he was hounded to death for that too. It was about 50 years before this self-evident truth was accepted, and oddly enough, umbrellas played a part - ordinary umbrellas that you use in the rain. Patients' relatives started banging surgeons over the head with them if they hadn't washed their hands before operating...

Yes, the Professor obviously knew what happened to poor old Semmelweis and so decided not to try anything too complicated with Buteyko - just dispatch him along the same well-worn path. But times had changed a little. The second half of the twentieth century was not the first half of the nineteenth, and so Pomekhin's first plan failed and Buteyko was not locked away. Buteyko knew why; knew, but said nothing.

So Mutin was Pomekhin's next attempt. The fact he had been foisted on Buteyko by his boss was no particular secret. They had to share accommodation and were constantly bumping into each other in the line of work and out of it, but never became good friends. Mutin's pale protuberant eyes constantly watered and were for some reason a source of irrational irritation to Buteyko, who found even Mutin's willingness to prepare an early breakfast or a late evening meal for the two of them cringing and annoying: they would sometimes grab some potato and roll-mop herring, bachelor-style, to save time. Buteyko never forgot that Mutin was the Boss's man. And 'God's Gift to Surgery' (as his staff called him behind his back) would never have sent him anyone good.

Buteyko knew this but had to put up with him. When things had recently reached crisis point with Pomekhin, Buteyko realised that Mutin represented a physical danger to him and was responsible for his vomiting episodes after some meals together... Pomekhin had calculated things very precisely: Mutin would either destroy Buteyko (at worst) or his priceless equipment (Mutin was responsible for the laboratory apparatus). Buteyko had no doubt that Pomekhin would stop at nothing - their last major conversation had made that clear. They had talked, in a real heart-to-heart you might say, and the Boss had revealed parts of his nature that were normally carefully hidden. And now, in the poet Lermontov's words, the earth could not contain them both. On this good and broad-chested earth, there was simply not enough room....

And so the day of reckoning had arrived. Buteyko noticed how keyed-up Mutin was over every tiny incident. One minute he was cursing a piece of equipment, the next swearing at the builders for holding up completion of their new

laboratory premises. But probably what got to him most were the Doctor's words on waking in the small bedroom that they shared: "Andrey, I think I am going to die today..." When he said this, Buteyko was just feeling the after-effects of nightmares that had plagued him all night - he did not realise it was the end of the month in which he had predicted he would die. But Mutin leapt to his feet, as though stung. "Nonsense! What are you on about! That's just rubbish!" And his pale, faded eyes blinked, at once miserable and guilty.

They took the workers' bus to Akademgorodok, the educational and scientific centre that was being specially constructed outside Novosibirsk. They struggled to get through the experiments they had planned for the day in a lab that had been completed, then inspected the building work in progress. By the time they left, Buteyko had gradually forgotten what he had said that morning. Then half-way home, not far from the Inya railway junction, their bus suddenly broke down. It could have been sheer accident of course, but during the lengthy repairs, Buteyko noticed Mutin casually stroll up to the driver, busy over the engine, and say something in his ear - after which the driver redoubled his rummaging. Mutin then went off to the station several times on some pretext or other. Even at the time, Buteyko wondered if he was going to make a phone call to somebody. When dusk began to fall, Mutin persuaded him to take the train. They caught one of the last ones and pulled into Novosibirsk around midnight. The dark station forecourt was virtually empty and they were out of luck - no taxis. There was only one gloomy jeep (black, Buteyko thought, not the usual dark green) that appeared to be waiting for someone. Mutin shouldered Buteyko away from the jeep's back door and threw open the front one.

The scoundrel knows! He knows full well that I always sit in the back, thought Buteyko, and a faint pounding began in his temples. He got in the front all the same, and slammed the door shut. It occurred to him that the bastards were planning a car crash, US-style. He heard Mutin settling into the seat behind him, muttering something incoherent under his breath. As he started the engine, the driver cursed unnaturally loudly, "Tin pot Russian engines!" Buteyko's insides churned. It wasn't just his enemies' idea of medicine that was clichéd; apparently even their idea of murder was. Everything, everywhere was a poor, lifeless copy of an original idea. Mutin was probably ecstatic in the back. Buteyko half turned his head to his assistant, who grunted in the gloom of the jeep. Well, he thought, Mutin had stuck him in front, contrary to Buteyko's usual rule. The bird had given a tell-tale signal! He turned to face the front, brows knit.

From his opponents' point of view, it was a big plus that no-one knew about him, although people who copied him had become quite famous.

The killers know I never usually rest my hands or feet on anything when I'm in a vehicle, he thought. I hold them relaxed and free, and I usually cross my arms over my chest....but that's 'usually,' gentlemen. Buteyko imperceptibly stretched out his legs and braced them against the floor of the vehicle. He gave a sideways glance at the scruffy driver in his leather cap, turning the ignition key for the hundredth time, and very demonstratively crossed his hands over his chest. Too early, he told himself. No need to alert them. Wait till we've started to get

some speed up. Buteyko's mind thought it through clearly. You've got to outwit the bastards. Whatever else you do, you've got to outwit them.

He had imagined a US-style 'car crash' scenario ages ago, he had had good reason. The victim would be put in the front next to the driver, the car would get up to 30 or 40 miles an hour, then WHAM! there would be an 'unexpected' crash with an obstacle that 'unexpectedly appeared' on the road: unexpected, that is, only by the intended victim. Everything would have been planned in detail, like a business operation. That sort of speed would not kill the driver, who would be in on the deal and on their books. He would be protected by the steering wheel and able to brace himself in good time. But the victim, unprepared and not holding on to anything at that slow speed, would be catapulted through the windscreen by the impact of the collision and shatter his skull on the 'unexpected' object. Afterwards, there would be a flowery funeral and heart-rending speeches by the assassins. Crimson wreaths on a funeral mound. An accident. 'What could anyone have done?'

The jeep coughed suddenly then leapt forward. The driver's hunched figure was rigid with tension and he had let his leather cap slide to one side of his head. Buteyko silently prayed as he placed his hand on the metal door handle, careful not to attract attention. The vehicle raced once round the station forecourt then out down a side street. Buteyko could feel Mutin's hot fingers digging into the back of his seat very tightly and thought, he's scared too, the swine, before suddenly the jeep hit something very big and very hard. The impact lifted Buteyko out of his seat and he was hurled at the windscreen.

CHAPTER 2

The Boss

As the hands of the large clock on the wall neared midnight, Professor Pomekhin grew visibly more agitated. The 'Boss' (as he was known to his many colleagues at the clinic behind his back) could no longer relax in the comfortably padded chair behind the desk in the tastefully decorated office.

At this very moment, the 'accident' should be taking place. Would he finally be rid of Buteyko for good? Why on earth had he lured him away from Academician Dariev's team in 1958? He should have let Dariev deal with the brazen upstart in Moscow. His wings would have quickly been clipped in the capital.

But here in Siberia... the Professor unconsciously flailed his arms as he paced the carpet runner... here they had been forced to resort to extreme measures. But what else could he do? What else could he do when his Nobel Prize hung in the balance? It wasn't just a hypothetical Nobel Prize, it was the Nobel Prize that he, Professor Pomekhin, stood a good chance of winning very soon. And before he had even turned forty-five! The Professor examined himself in the round mirror on the wall.

He was of medium height, broad-shouldered and well-built. He wore a goatee beard and was still popular among the ladies. It was true that he wasn't as breathtakingly handsome as the slim and athletic Buteyko, but all the same... And what were the attentions of the fairer sex to the Doctor? Buteyko didn't seem to be interested in anything but his equipment. With his wife and small daughter in Moscow, he could have enjoyed a little diversion here in the provinces. But no, he sat from morning to night with his 'combine-complexator'. Oh, that complexator...

The Professor ground his teeth. He stood for a moment at the window that looked onto the dark hospital garden, adjusting the crisp white coat that had begun to slip off untidily. From his position on the second floor, he could see the delicate raindrops left by a recent shower on the green leaves of the poplar as they glistened in the yellow lamp light. The perfume of the fresh May evening was slightly heady.

But Pomekhin didn't care about the scents of spring. How wonderful and simple his life had been before he had met that impudent upstart! The Professor slapped his knee in agitation.

Pomekhin had been born into a good family, graduated from medical school then gained his PhD exceptionally early. He made good use of his parents' connections in the early years - it would have been impossible to make headway in the scientific world otherwise. Pomekhin quickly formed his own network of contacts, acquired a degree of polish and began to feel at home in this world where each was a 'friend, colleague and brother', as the Soviet saying

had it. He was soon awarded the prestigious post-doctoral qualification of Doctor of Sciences.

Everything came easily. He was a talented surgeon and enjoyed operating, achieving a certain fame as a cardiologist, then becoming a professor before the age of forty. It was about time to become director of his own institute, but it was hard to stand out in Moscow among so many eminent surgeons. Then at the end of the 1950s the Communist Party began a campaign to bring science to Siberia, and Khrushchev appealed to the scientific elite to help develop the far-flung regions of the taiga.

Gradually scientists started to move to Siberia, some of them famous specialists from Moscow and Leningrad, but many more who were as yet unknown and eager for recognition. There were good scientists and bad. Some were seeking absolute power and others were true patriots. Pomekhin got down to work. There, some 30 kilometres from Novosibirsk in the frozen expanses of Siberia, he stood a real chance of establishing his own institute, his own impregnable fortress.

A Siberian branch of the Soviet Academy of Sciences was set up with generous funding and everyone leapt at the chance to join its staff. The young professor had long dreamed of founding an experimental medical institute with a biological slant. In 1958, it seemed his dream was about to come true.

While Pomekhin was still in Moscow, one of his colleagues brought Dr Buteyko to meet him. "He's not working with us at the moment, he's actually in Academician Dariev's department, but he might have been made for us!" said the colleague of the quietly self-contained Buteyko. "He's also fighting for truth, and has lots of promising plans."

They talked for over an hour. Buteyko openly spoke about his growing conflict with his supervisor. Dariev was a renowned expert and did not believe that hypertension could be treated in a new way, and not just with tablets and injections as it had previously. Buteyko described the wonderful diagnostic laboratory that he had set up in the department and how it had been taken away from him because of this dispute. He told Pomekhin about his hopes for the future.

Pomekhin took to Buteyko, with his spiritual face and unaffected sincerity. His views on the inadequacy of modern equipment struck a chord in the Professor. He wanted to have such a skilled artist working with him - but as a technical expert, and not a dangerous scientific rival.

Buteyko hardly seemed to pose a threat. Pomekhin was a professor and a cardiologist, whereas Buteyko was a lowly researcher without Pomekhin's esteemed postgraduate qualifications. The Doctor was part physician, part gynaecologist and obstetrician - what rivalry could there be? If Buteyko was an artist, he was a peasant artist.

Pomekhin promised the Doctor everything: staff, money for equipment and a laboratory. They found that they generally agreed about everything, and at first, after the move to Novosibirsk, Pomekhin had no regrets. They were temporarily allocated the old TB block on the grounds of the city hospital. From the very first Buteyko was intent on assembling his unusual equipment, but in the beginning he didn't bother anyone. On the contrary, he was a great help. When a piece of equipment broke down in a neighbouring department and no-one could fix it, they called Buteyko. He would inevitably get it up and running again quickly. Apart from the fact that Buteyko had graduated brilliantly from the country's top medical school and started a postgraduate degree under the renowned Academician Dariev's supervision, he was also a gifted technician.

Buteyko and his assistants spent fifteen hours a day constructing his 'combine-complexator' (Pomekhin frowned at the very thought of that unusual diagnostic apparatus). It was almost ready by the autumn of 1960, and as the work on it neared completion, the first signs of disagreement between Buteyko and the Professor appeared.

According to Buteyko (oh, that confounded upstart!) the complexator was a unique piece of medical technology with no equivalent either in the USSR or abroad. The patient lay on a special couch and was hooked up to a variety of sensors that, according to Buteyko, provided information inconceivable in any other clinic in the world. The complexator could simultaneously provide data on up to forty indicators of the patient's condition; pulse rate, blood pressure, respiratory rate and even the amount of carbon dioxide present in an inhalation and exhalation were all measured by the cunning device. It could also measure carbon dioxide levels separately in the lungs and blood.

And it was then that Buteyko showed just what he was capable of. The diagnoses made with the aid of this infamous complexator directly contradicted the opinions of the top specialists in the Professor's clinic, people who had spent years honing their diagnostic skills. The first victim was the Head of the Physiology Laboratory, Meyer Shikhman.

"You have pseudo-physiologists here, not physiologists," Buteyko said bluntly to the Professor. But the worst was... Pomekhin stopped pacing to glance at the clock - the hands had already passed midnight... the worst was, Buteyko was right!

The Professor would never forget the cold, frosty autumn morning in 1960 when Elvira Samuilovna, Shikhman's top radiologist, had presented the laboratory findings for one of the most difficult cases.

"It's pulmonary stenosis," she announced categorically, spreading out the glossy celluloid x-rays in front of her.

"The only possible way to save this patient is an urgent heart operation," said the pink and plump Shikhman, nodding his bald head knowingly.

"What's your opinion?" Pomekhin turned towards Buteyko, who was also present at the meeting.

The Professor knew Buteyko could not stand the radiologist because of her nasty habit of showing x-rays only to the Professor during ward rounds. She would turn her back on Buteyko and furtively produce them from somewhere under her lab coat, then quickly conceal them again.

"In my opinion..." the Doctor rose to his feet and wiped his glasses.

Now he's going to spout pseudo-physiology, thought the Professor, unconsciously smirking to himself, but what he heard instantly banished all irony.

"In my opinion, surgical intervention is dangerous and extremely undesirable!"

Buteyko's warning grated on Pomekhin as he couldn't stand such criticism of surgery. As a first-class cardiologist, Pomekhin preferred to solve the majority of unclear cases with the scalpel. Although heart surgery was dangerous, the Professor did not shy away from risk. He saw this as his duty, his calling, and as a result, no matter what else, he was held in high repute. There were few people at that time who had the courage to touch a living human heart. He was forgiven occasional fatalities - in cardiology they couldn't be avoided - but every success added another shining jewel to his medical crown. Pomekhin couldn't imagine himself without a scalpel. And those who were opposed to the scalpel (even for good reason) became his enemies, whether they knew it or not.

"What reasons can you give for your diagnosis?" Pomekhin had turned slightly pink. "We have x-rays." He nodded towards the glowering radiologist who was agitatedly fingering the celluloid pictures. "At the end of the day, an electrocardiogram..."

"Exactly!" The unwieldy Shikhman jumped to his feet, beads of sweat on his meaty nose. "Explain, Dr Buteyko, and don't talk nonsense. This diagnosis has been established by the Physiology Laboratory, and as its Head I insist..."

"Insist as much as you like." Buteyko adjusted his glasses again and from his coat pocket pulled a long strip of paper with curved lines plotted on it. "You have an electrocardiogram," the Doctor emphasised the first word, "and we investigate heart function using a ballistocardiograph. You understand," he looked with ill-disguised contempt at the Head of the Laboratory, "a ballistocardiograph is ten times more exact."

"Hold on!" Meyer Shikhman flung his arms up in irritation. "Who has proved that it's ten times more exact? Such insolence..." Shikhman couldn't restrain himself any longer. "You've not long got your equipment together, your so-called 'complexator'..." Shikhman turned to Pomekhin for support, "but electrocardiograms are used throughout the world!"

"That means they're being used to no purpose!" interrupted Buteyko. He wasn't finding it easy to argue with these pompous authorities, but he had no intention of backing down.

"But what if your theory is disproved when we open him up? Do you understand the responsibility you're taking upon yourself?" The Professor's reddish eyes were fixed on Buteyko's face, its stony expression making him still more handsome.

It's lunacy to crack open a patient's chest just to confirm such a clear-cut diagnosis by the ballistocardiograph, thought Buteyko, feeling weak at the knees. But, on the other hand, better the butchers did that than slice at the heart! An operation would mean certain death for this patient. It could have helped if it were pulmonary stenosis, right ventricular outflow obstruction. But for mitral valve insufficiency, that is, if the valve was not closing properly, surgical intervention would be deadly.

"Well?" Pomekhin continued to fix Buteyko with a stare. Shikhman held his breath, suddenly afraid - what if Buteyko was right?

"I normally know what I'm talking about," answered Buteyko, slowly but clearly.

...They opened up the chest of the poor patient, who was thin as a rake and barely alive in any case. Pomekhin inserted his finger into the incision, felt the posterior commissure and, now realising that Buteyko's diagnosis was correct, brusquely ordered his assistants, "Sew him up!"

The day after this episode Shikhman was no longer Head of the Laboratory, but his successor continued to wrongly diagnose cases of pulmonary stenosis. They needlessly opened up the chests of a few more patients, and unpleasant rumours spread through the wards: these doctors cut patients open like lambs to the slaughter, people were saying, without even examining them...

Buteyko's diagnoses were extremely unwelcome to Pomekhin as they limited the scope of his surgical activities. At first he got angry and started threatening the Doctor. But, after he was proved wrong on three occasions when he had explored patients' chests, he pretended to have made his peace with the 'great diagnostician'.

"How does it work, this wretched ballistocardiograph?" he asked Buteyko with a fake smile one day when they were alone. "How does it achieve such exact results compared with a normal electrocardiogram?"

"It's not just a ballistocardiograph," said the Doctor, who lit up at the question. "It's my own special design - it's calibrated! There aren't any others like it in the world..."

"Let's have less of this 'whole world'," the Professor said coldly, "To listen to you, you're God's gift to medicine and everyone else just mutilates their patients."

"Not quite everyone," the Doctor's finely drawn face lost its animation. "But many people. A great many at the moment." He raised his head, as if in challenge. "Let's take that electrocardiogram, which seems to provoke some kind of mass hysteria. Have a think, Professor, what kind of information does it give you?"

Buteyko pulled off his white cap and pushed back his unruly forelock.

"It records the electrical impulse the heart muscle makes when it contracts," Buteyko continued, answering his own question. He tapped his right temple with his crooked forefinger in indignation. "The same impulse that is generated by the sinoatrial node. So what?" He abruptly lowered his crooked arm. "What does this picture of heart function give us? It's as if we were looking at the ignition to check how the engine was working. It isn't a reliable indicator at all. The ignition works, so the mixture is ignited. But we can't use that to measure the power of the engine. Similarly, the graph of the electric impulse is hardly a reliable indication of heart function." Seeing how mistrustfully the Professor was looking at him, the Doctor became visibly nervous. "The ballistocardiograph is quite another matter, especially my calibrated design. It measures the real function of the heart - its role as a hydraulic pump!" To Pomekhin it seemed that Buteyko's very ears had turned pink with excitement. "As a hydraulic pump!" repeated Buteyko for emphasis. "After all, what does the heart do? It circulates blood. And so the force with which it does that is an important indicator of its health. The calibrated ballistocardiograph uses sensors to detect the slightest displacement of the chest every time blood is expelled - on every impulse generated by the heart pump. And it provides an exact graph of these displacements! By interpreting this graph, we get an absolutely accurate picture of how the most important vital organ is functioning. This is why an electrocardiogram shows you pulmonary stenosis and the ballistocardiograph gives a completely different diagnosis!"

"Interesting..." said the Professor, apparently lost in thought and gazing somewhere behind Buteyko's shoulder. "Very, hmm," he coughed into his fist, "interesting. Well, ahm, let us suppose you are right. The patient doesn't have pulmonary stenosis and an operation would be dangerous." The Professor pulled a long face. "What would you suggest? What can replace the scalpel? Tablets and injections as a rule don't work on my patients."

For a few seconds neither man spoke, as if biding their time.

"I use carbon dioxide instead of the scalpel," said Buteyko, with quiet conviction.

"You've already told me this nonsense." Pomekhin pulled away. "Can't you make a more serious suggestion? Carbon dioxide," Pomekhin drew a circle in the air, "is like a genie in a bottle. It's virtually impalpable and its benefits for patients are practically impossible to prove."

Buteyko's cheekbones stood out more sharply.

"What's the point of empty chitchat?" In his anger, the Doctor had forgotten about rank. "Let's go to the complexator. I hope you won't need practical proof of your own angina..."

...As the Boss arranged himself on the complexator's couch, Buteyko's subordinates exchanged sly glances.

"Breathe more deeply," the Doctor ordered the Professor, who was covered with sensors.

Pomekhin inhaled. After only a minute, he was racked by a dry cough. The ballistocardiograph dispassionately recorded a severe attack of angina.

"Now switch to shallow breathing." To the Professor, the Doctor's voice seemed to be coming from far away. Red circles were dancing in front of his eyes. But as he began to breathe less deeply, Pomekhin started to feel a noticeable improvement.

"Is that better?" Buteyko leaned over him. The Professor nodded his head.

"Give him a little carbon dioxide," the Doctor turned to his assistant. "How is it now?" He again leaned over Pomekhin.

"Sheer bliss," replied the Professor, smiling contentedly and nodding his goatee. "It's as if the attack never happened."

..."So, can carbon dioxide replace the scalpel?" Buteyko asked the Professor when he was on his feet again.

Pomekhin's large dark pupils narrowed.

"In certain circumstances, possibly..." he muttered, with a worried glance at the assistants standing nearby.

"And in your case as well!" remarked Buteyko, as loudly as possible. "And in case you forget, we'll keep a file of your graphs from the complexator." He nodded to his assistant. "Put the best ones in, Oleg."

Mutin stood to the right, keeping a close eye on the assistant as he filed the graphs.

...So this was how the conflict between Pomekhin and Buteyko had come to a head. As he recalled these episodes, the Professor had glanced several times at the clock and the massive telephone receiver. It was after half past one but the telephone had not rung. What had happened? Pomekhin had a nasty feeling in the pit of his stomach. Was Mutin still alive? After all, it was a car accident... Was it really possible to plan everything in advance? Pomekhin wiped his clammy forehead with his hand.

His decision to physically eliminate the Doctor had not come immediately. Murder, however you looked at it, was still murder. The idea had developed gradually. After his own examination by the complexator, he had realised that Buteyko was right. Absolutely right! Which meant that his Discovery of the Diseases of Deep Breathing was a real scientific discovery!

And what a discovery! Hippocrates and Avicenna would envy it! According to Buteyko, 150 of the most common diseases could be cured in a single stroke, without tablets, injections or surgery. Bronchial asthma, all sorts of allergies, ischemia, angina pectoris. The scourge of the twentieth century, diabetes. Preeclampsia, miscarriage, and more.

Alas, it seemed that Buteyko, that 'peasant artist', had vanquished all these diseases. But if that was the case, what would happen to Pomekhin and his Nobel Prize? He treated heart complaints with the scalpel and had been one of the first to treat particularly severe cases of bronchial asthma by cutting out then reattaching one of the lungs. He hoped to win the cherished Nobel Prize for this operation once it became more widely used. He had already removed several lungs and sewn them back in place, although it was true that he did not reconnect the nerve endings that had been severed from their roots. Whether the asthmatic patient's condition improved after this operation was, of course, a problematic question.

But no therapy really worked for asthmatics. As the Russian saying goes, only death can straighten a hunchback. And the operation had worked wonders for his reputation. 'The respected scientist... Professor Pomekhin is undaunted by risk and travels the unbeaten track...' That's what they had written about him. And they would write more! They would write more, as long as there were no discoveries by Buteyko...

Pomekhin seized the ringing telephone, but it was a false alarm.

...This discovery was so new, why not wait a little longer, he subtly suggested to Buteyko, and dropped hints about his Nobel Prize. But the Doctor remained obdurate. He wasn't stupid, it was true. Not one bit! He knew how to handle the situation. Seeing the conversation was frank and serious, he did not beat around the bush but made Pomekhin a direct offer of co-authorship. He had not discovered the diseases of deep breathing alone, he said, they had made the discovery together.

Yes... whatever else, Buteyko knew how to get what he wanted. Not everyone would be capable of sharing the discovery of the century. But Buteyko was! He would do anything to get his discovery the green light.

The torrent of memories made the back of Pomekhin's neck ache. The temptation had been great, very great. They could take Moscow by storm with the method for the elimination of deep breathing, and world-wide fame and recognition would be ensured for years to come. Just the numbers saved from suffocating attacks of asthma (tens of millions in the USSR alone) would give

them gold statues in their honour, and the numbers saved from angina and diabetes would ensure their pedestals were covered with mountains of flowers.

The temptation was great! Pomekhin touched his aching neck with his hot palm. However, there had been one huge 'but' - the strength of opposition from the medical establishment if there was any attempt to introduce this method into their daily practice. For example, he could cut out a bronchial asthmatic's lung. Whether good or bad, it was action - visible, palpable, clear to everyone and exceptionally brave. And what was Buteyko doing? Instead of having an extraordinary operation, the asthmatic decreased the depth of his own breathing. And that was all! Who on earth would believe that? Well, patients with asthma and angina would, especially those having attacks, as the attacks would disappear. But what about those who had to write an official scientific report based on empirical evidence - would they believe it? Never! The patients weren't taking any medicine or getting any injections, or even any operations! And suddenly they were getting better. The professionals would put it down to anything else - temporary hypnosis, short-term autosuggestion - but they wouldn't believe it. Nor would they confirm it. Knowing this, Pomekhin overcame the temptation. He refused the offer of co-authorship outright, especially as it would automatically turn his 'institute of the scalpel' into the 'institute of carbon dioxide'. The Professor could not imagine himself without a scalpel, and did not want to. Needless to say, his concern for the development of medicine and the good of patients went by the board. He had to consider his own interests first, after all.

So he answered Buteyko with a flat 'no!', asked him not to make any presentations to the Scientific Council of the Siberian Branch of the Academy of Sciences, and told him to drop this 'absurd' idea. However, that had no effect. On 11 October of the previous year, the confounded man had stood on the platform, waving a pointer as he introduced his complexator machine to an audience of surgeons.

For a long time, these blasted specialists had turned up their noses, but their ears were still open. Once in a while they began looking into the precious complexator's room, as if they were passing by chance. Some even wanted to be examined by it. Of course, Buteyko was shot down by the Academy - it was too early to announce the discovery, the complexator was still very new - but that was only for the time being. What would happen in future? That might be much worse.

So Pomekhin felt he had no choice - he had to act. To begin with, he ordered Andrey Mutin to steal the file containing the records of his own examination by the complexator, which Andrey had managed to do. He was a reliable chap whatever else, and faithful as a dog. He would sell his own grandmother to further his career. Then the Doctor started to experience bouts of food poisoning. The assistant had arranged this himself, showing initiative so to speak - true, not without encouragement from his superior... but... he'd do anything for science. Pomekhin had remarked in passing that sometimes people were poisoned by

mushrooms, and as if by magic, Buteyko was soon complaining to Andrey about terrible vomiting.

Andrey felt sorry for him, naturally. Buteyko was a friend and colleague, they shared accommodation. But the car accident... that was purely Andrey's idea. The Doctor had helped more and more patients with his shallow breathing techniques. It even looked as if he was managing to delay patient deaths. Mutin saw how terribly his Boss was suffering and how he was eaten up with worry. As if talking about someone else, he jokingly described a 'semi-fantastic' scenario, as he put it.

Mutin said that he'd dreamt that on the way back from Akademgorodok (where they often went), the bus had suddenly broken down on the road... either for mechanical reasons or because someone had suggested to the driver, let's pull up for a couple of hours mate, my mother-in-law promised to come by and I really don't want to see her... or maybe no-one had said anything to the driver. Maybe someone had loosened a couple of little screws in the engine before setting off while the driver had dashed to the cafeteria... and the engine died before they got home. It's amazing what rubbish you dream, you can't remember all the details afterwards...

But interestingly, Mutin remembered the ending quite well. He was with someone in a jeep late in the evening travelling from the station because there were no taxis. Then all of a sudden, bang! There was a terrible collision. He woke up in a sweat, shaking.

Pomekhin remarked that there was less risk if you sat in the back. Andrey replied, "I dreamed that my cousin, Mishka, was at the wheel. He's been living here for two years and drives a jeep for a living. He was sacked from his last job for drinking, that's why he came to Novosibirsk."

Such was Mutin's dream. Then on 14 April Buteyko announced to everyone in his laboratory that in a month he would be killed, and asked them to listen to his scientific testament.

The Professor cracked his fingers. What a visionary they had here! Buteyko could sense what was brewing... But the date when the wretch had made the announcement was the most important - a day of national rejoicing, the day after Yuri Gagarin had flown into space. It was incredible! People were glued to loudspeakers and televisions as they listened to congratulations from all over the world. The sick rose from their beds - a Soviet citizen was the first man in space! But Buteyko was announcing his death and asking his colleagues to write his testament down.

Well, Buteyko was hoist by his own petard - he had announced his own death. Mutin had understood this, and reported back to Pomekhin straight away. He concluded that they couldn't possibly let the 'great diagnostician' down. His prophecies had to come true.

But yesterday, Mutin had muttered that he had a bad feeling, as if he would perish in this accident along with the man who had foretold it. The fateful day was 15 May, the end of Buteyko's allotted span. And he gazed pensively at Pomekhin. So the Professor had decided to sit and wait into the night. Anything could happen...

Pomekhin had faith in Mutin's abilities, as Andrey knew that the Boss's gratitude would have no bounds if he was successful. But it wasn't a simple matter to get such a troublemaker out of the way of Science. Would they succeed? Pomekhin noticed that the hands of the clock were both pointing to one, and sighed heavily. His attempts, for example, to get Buteyko put in a lunatic asylum had come to nothing. The Regional Communist Party Committee and even the KGB had cut him short when he sidled in with his suggestions. The Professor briefly ceased his pacing and his round cheeks turned crimson. He wouldn't forget for a long time how one of the highest placed officials in the region had stamped his foot when he'd heard Pomekhin ask for help in placing a 'young scientist who was insanely obsessed with carbon dioxide' in a lunatic asylum.

"One Buteyko is worth the whole of your clinic! The entire Experimental Institute!" the angry Party Secretary had yelled. "I don't want to hear about this again!"

Pomekhin had not expected such a reception, but without Communist Party support there could be no question of a psychiatric hospital. And pathetic as it might seem, it was the Professor himself who had first introduced the official to Buteyko when work on the ill-starred complexator was finished - Pomekhin had wanted to show off the new machine. The Professor didn't know how the Doctor managed to bewitch the Party official, but now Buteyko had the official's approval, Pomekhin could not go above his head.

Pomekhin once again paced the coloured carpet runner from the door to the desk and back. Of course, Party approval was not required for a car crash, Mutin was right. But Mutin's mushrooms hadn't worked.

The sharp, sudden ring of the telephone rent the night silence of the cosy office. To the dumb-struck Professor, it sounded like the crack of a whip.

"We were in an accident. We barely escaped with our lives." Pomekhin dimly made out Mutin's muffled voice in the distance through the crackling of the receiver. "A car behind us..."

Half an hour later he heard uneven footsteps in the corridor and Buteyko appeared at the door, which had been carefully left ajar. He was supported by Mutin and purple bruising was visible through the gauze bandage on his pale face. The Professor almost fainted.

CHAPTER 3

A call from Buteyko's wife. Protection against the lunatic asylum. Suspicions

On the morning of 16 May Buteyko was lying in the Boss's spacious office, which he was allowed to use until his health improved. The room was overflowing with flowers brought by his colleagues from the laboratory and staff from other departments. Pomekhin was furious. Just a few days ago he himself had occupied the very same couch, suffering from an attack of angina. In the whole week, he had only been given two puny little flowers, still standing mournfully in the dark green bottle on the window ledge. But Buteyko had been drowned in them! Any fool could see who was the uncrowned director of the Experimental Institute now. Uncrowned today perhaps, but tomorrow... Pomekhin was beginning to regret giving Buteyko use of his room, but he hadn't really had a choice as he didn't want to arouse the Doctor's suspicions. That didn't seem to have worked, however.

The Professor was not mistaken: Buteyko not only suspected that someone wanted him dead at any cost, but was firmly convinced of it. Although Buteyko knew that the sea of flowers would only widen the gulf between him and his boss, he was still glad of them. They were a sign that he was needed at the institute and that he had friends here as well as enemies. Again and again Buteyko played back the events of the previous night in his mind. He watched it all as if in slow motion, sometimes stopping the film to examine a frame more closely.

The hideous screech of the brakes and the shattering of the windscreen merged into a single sound in the last frame that he managed to recall. A huge asphalt roller, parked for the night, became visible just beyond the bonnet in the faint light of the headlights that had doubtless been dimmed on purpose. If the Doctor had been sitting in the front of the jeep without holding onto anything (and after all, people usually don't) his head would have smashed into its steel drum and he would have been killed without a doubt. Even though he had braced himself with all his strength using both his arms and legs, Buteyko's head had still broken the windscreen.

Policemen rushed from the nearby station at the noise. With the help of the driver (who had escaped with mild fright) they managed to drag the Doctor, covered in blood, out of the door and half carried him into the duty room.

"What made you do that, you idiot?! There was a wooden barrier and sign in front of the roller!" The Doctor, still groggy, dimly made out the sergeant reprimanding the driver.

"A car was coming in the opposite direction and blinded me with its headlights, the bastard," the driver weakly justified himself.

"And so where is it, this other car?" the sergeant enquired disbelievingly, nodding to his men to help Buteyko to the washroom. "Why didn't it stop when there was an accident?"

"Why would they stop?" the driver responded in a surly tone, clenching his creased cap in his hands.

"Help the gentleman to rinse his face," the sergeant ordered the freckled young officer who had already helped Buteyko as far as the door. "And we'll try to call an ambulance in a minute. We've not been able to get through to them yet for some reason, there must be a fault on the line or something."

"There's no need for an ambulance," Buteyko replied weakly from the doorway. "I'm a doctor. Just let me get washed and give me iodine if you have any. We'll manage everything else ourselves, at our place."

"What do you mean, no need!" exclaimed the burly sergeant. "Your friend is holding his head." He turned towards Mutin, who had just come in from the street.

"My 'friend' also works in a hospital," said Buteyko, with a hostile nod in Mutin's direction.

"We really don't need an ambulance," Mutin confirmed, taking his hand away from his head. "There's nothing really wrong with me, I've dislocated my finger and got a few scratches." He rubbed the bruised area again. "So if Doctor Buteyko doesn't think it necessary..."

"I don't!" snapped Buteyko, and wiping away the blood that was dripping from his forehead with a handkerchief, he followed the sergeant.

Blinded by an oncoming car indeed, thought the Doctor as he rinsed his face under the tap and removed dozens of glass splinters from his face. If you really had been blinded, you villain, you wouldn't be bringing me into a police station, you would have been carried away feet first on a stretcher yourself! Buteyko opened the vial of iodine from the first aid kit. The scoundrels thought they had planned everything perfectly, he silently mused, the accident would take place right in front of a police station, and not in some isolated alleyway where something could obviously be contrived. An accident... a very cunning accident. The Doctor carefully rinsed his mouth and spat out the red foam - blood was gushing from a broken tooth. But they were wrong, he thought, I'm still alive! A report should be drawn up. Who knows, it could be useful in future.

When he returned to the duty room, Mutin said that he'd managed to get through to the clinic and that someone was coming to pick them up. He was trying not to look the Doctor in the eyes.

... "Dr Buteyko!" The pretty nurse broke this train of depressing thoughts. "You're going to get a phone call in a minute. Your wife in Moscow is worried. She rang the phone next door. I'll move the telephone closer to you."

The nurse put the telephone on the bedside table. As she bent down to untangle the black cord he caught a waft of expensive perfume, then with a smile, she left the room. His wife didn't wait long.

"What's happened? I couldn't sleep a wink last night." The receiver crackled. "I rang your hospital, but no-one could tell me what was going on. They told me you were a bit unwell and gave me that number. What's the matter?"

His wife's usually melodic voice was fraught with anxiety and distorted by static, bringing Buteyko back to reality.

"Calm down, Marina, nothing much is wrong," Buteyko said as cheerfully as possible into the receiver. "There was a bit of a road accident and I got a few scratches."

"Irina got upset when she saw me worrying. She's been crying," interrupted his wife.

"Calm down and calm Irina down too." Buteyko tried to add a note of strictness to his voice. "I'm alive and practically well. An accident can happen to anyone."

They spoke for a few more minutes.

"I begged you to make up with Academician Dariev and not to leave Moscow, but you wouldn't listen!" reproached his wife near the end of their conversation. "I don't have a good feeling about Siberia. You've only just started working there and this is the second time..."

"What do you mean, second time?" Buteyko abruptly turned over on the couch, wincing at the sharp pain in his right shoulder. But remembering where he was, he hastened to finish the call. "Alright, don't worry over nothing, everything will be fine. Give Irina a kiss for me and pass on my regards to everyone."

He replaced the receiver and lay back weakly. The collision with the roller was taking its toll - his head was spinning and he felt sick.

"The second time..." His wife's words echoed in his mind. That meant that she considered the Boss's attempt to put him in a lunatic asylum as the first time. He naively hadn't believed Pomekhin when the Professor said that he had telephoned and written to her, saying that "for the sake of your family's happiness" Buteyko should be sent for treatment in a psychiatric hospital before it was too late.

But surely his wife hadn't taken Pomekhin seriously! Buteyko wrapped the blanket more closely around his wounded shoulder. She was a famous dancer with one of the country's biggest theatres. Could she, with her intelligence and sensitivity, believe a crass blackmailer? Could she take seriously Pomekhin's obviously ill-intentioned ravings about her husband's insane obsession with carbon dioxide? It didn't seem likely. Buteyko shut his eyes.

On the other hand... he couldn't be certain. He had begun to disagree with his wife about his discoveries back in Moscow, right after Academician Dariev had refused to support him. "You excelled at everything, Dariev took you on as a postgraduate. He would have considered you his deputy," his indignant wife had said. "But you became obsessed with carbon dioxide. You fell out with Dariev and ruined your whole career!" She was graceful even when angry. She was the best Spanish dancer in her company and tried not to lose her poise even when upset.

Yes... it would seem that his wife had believed Pomekhin when he said that her husband wasn't in his right mind. His body ached. A drowning man might grasp at straws, but Buteyko knew that he could only depend on himself. When the Doctor felt a gulf opening up between him and the Boss, he stopped relying on his wife's support or his friends' sympathy. In the face of grave danger (and Buteyko considered the lunatic asylum to be the greatest threat) they would cave in. In the end, they were powerless. Ignaz Semmelweis and his follower Professor Lister were a terrible warning. The Doctor knew that only the 'powers that be' could save him from the lunatic asylum or even a prison cell. He had hastened to win their support when the first cracks appeared of the fissure that would later become an abyss.

Buteyko cured the district head of the KGB in a few sessions. The Colonel had caught a heavy cold during a long night operation conducted in the line of duty. Acute bronchitis then became chronic, and his asthma attacks were unbearable. During the Colonel's first examination, Buteyko had artificially induced a severe asthma attack and then relieved it without using any injections or tablets. This had convinced the Colonel of the Doctor's Method once and for all. Of course, the numerous other patients who had passed through his hands also believed in it, but they could not rescue their saviour from the abyss opening up between him and his boss. But the Colonel could, Buteyko knew.

His second protector was none other than one of the highest ranking Communist Party officials in the region. Interestingly, they had met thanks to Professor Pomekhin. Forgetting about his smarting shoulder for a moment, Buteyko smiled broadly.

Pomekhin, Mutin and Party Secretary Petrov had visited his laboratory at the end of October last year. The Professor couldn't wait to show off the new complexator to Party bosses. Seeing how Buteyko and his assistants brought back patients from the brink of the grave, the Secretary had taken Buteyko aside into a separate office.

The Party Secretary had sat silently smoking for a long time. Then he suddenly stubbed out his cigarette and demanded, "Can you swear not to tell anyone about my illness?"

Buteyko was dumbfounded.

"Can you or not?" Petrov's face was distorted by a nervous twitch.

"Of course I can," the Doctor quickly reassured him.

"You know," Petrov unbuttoned his well-made jacket and loosened his suffocating tie, "a strange thing has been happening to me for the last few years. I get up quite early in the morning, do my exercises and splash myself with water. And even so, I feel so lethargic and exhausted, it's almost unbearable! I have a splitting headache, as if I've been drinking. My blood pressure soars and my heart starts playing up. I sweat like a pig. I need to get to work but I'm afraid to step out of my flat."

Buteyko listened without interrupting. There was genuine pain in Petrov's deep-set eyes.

"And I don't know what to do," he said, helplessly shaking his head. "When I'm at work, I seem to calm down. But next morning, it all happens again! I've seen all the leading specialists. A doctor with a PhD in medical science created a series of breathing exercises especially for me and takes me through them every morning. Inhale-exhale, inhale-exhale." As he imitated the exercises, Petrov swung his arms out to the sides. "It doesn't work." The Party Secretary's shoulders slumped. "As soon as the alarm clock shows 6 am, I start to shake." He fell silent once more and looked questioningly at the attentive Doctor. "Maybe you could help me with your complexator," he said at last.

"You know," said Buteyko calmly, putting two and two together in his head, "I probably could help you. But," Buteyko spoke more slowly, "since I've given you my word, please try to take my advice seriously, no matter how strange it might seem to you at first."

Petrov stood up.

"Would you show me again how this doctor teaches you to breathe?"

"Inhale." Petrov stood with his feet shoulder-width apart and stretched his arms out to the sides, filling his chest with air. "Exhale." He brought his arms together. "Inhale." He stretched his arms above his head. "Exhale... It's happening again!" The Party Secretary suddenly went pale and clutched at his heart. "I'm dizzy and my heart is pounding. Isn't there any cure?" He groaned and sank back into his chair.

"There is definitely a cure," said Buteyko, with an enigmatic smile.

“What?” Petrov frantically grabbed the tail of Buteyko's starched coat.

“Throw him out!”

“Who?” Petrov let go of the coat.

“Your doctor with the PhD in medical science,” came the Doctor's cool reply.

“When?” asked the confused Party Secretary.

“Next time he comes to do exercises with you, throw him out.” Buteyko cupped his chin in his left hand. “He's making you over-breathe. He's damaging your health when you do your breathing exercises. In my opinion,” the Doctor took his hand away from his chin, “it's sabotage against you. Maybe someone sent him?”

“What do you mean, over-breathing? And why sabotage? Surely it couldn't be?” Petrov drew close to Buteyko. A vein was throbbing in his neck.

“Do you know what is the result of a single deep breath?” Buteyko motioned for the Party Secretary to sit down again. “It disables you for a minimum of five or six minutes, for the time it takes for your body to recover the carbon dioxide it has lost. Just one breath. And how many of them are you taking during your exercises?”

“Does deep breathing really have such serious consequences?” The perplexed Petrov was plainly disbelieving.

“Let's not waste time.” As always, Buteyko became animated when talking about his discoveries. “We'll just do a small experiment.” He retrieved a stopwatch from his pocket. “Would you breathe as deeply as possible, please.”

The Party Secretary shook his head and it was plain that he took the whole business as a joke. He opened his mouth and took several deep breaths.

“Keep going! Deeper, deeper.” The Doctor did not let him stop. After two minutes, Petrov couldn't stand any more.

“I can't go on!” he gasped. “I have an awful headache and there's a kind of ringing. And my heart hurts.” The vein on his neck was throbbing more intensely.

“Good.” The Doctor relented, attentively observing his patient. “And now, do the opposite, try to breathe more shallowly. Reduce your breathing.”

Buteyko saw that as Petrov limited his breathing, the livid patches disappeared from his face.

“Well, how do you feel?” he asked.

"You know, better, much better!" The Party Secretary raised his eyes to Buteyko's in surprise. They were clear, as if a film had been removed from them.

"Do I need to demonstrate the 'benefit' of deep breathing to you again?" enquired the Doctor, suppressing a smile.

"No," said Petrov slowly. "Your arguments are clear. But how did you manage...?"

"That's another question," interrupted the elated Buteyko. "You need to understand the theory..."

He explained the basics to Petrov and told him how to train at home. Two weeks later, he saw the Party Secretary again.

"Thank you, Doctor Buteyko, from the bottom of my heart! Those awful attacks stopped as soon as I started breathing as you told me. They've completely disappeared. And that doctor with the PhD... I sent him packing. He won't trouble me again." As he warmly grasped the Doctor's hand in farewell, Petrov said, "If ever you need my help... don't hesitate. I'll always support you!"

Buteyko narrowed his eyes against the bright spring sunshine. Petrov had most definitely kept his word. Buteyko had heard about his reaction to Pomekhin's suggestion of placing Buteyko in a psychiatric hospital. The Party Secretary believed in him.

But his wife? Buteyko felt an uncomfortable tightness in his chest. Marina, it would seem, did not. "The second time... oh heavens, the second time..." Again and again he remembered his wife's words on the telephone. It was hard! Buteyko rearranged the warm blanket. It was hard when you were forced to doubt your own wife! However, they had disagreed on fundamental matters before.

Take, for example, their attitude to Stalin. The Doctor hated the dictator with every fibre of his being. But like the majority of her cronies, his wife hero-worshipped him. It was difficult for the Doctor to believe that his nearest and dearest adored his deadly enemy, but such was the case. And Buteyko was powerless to prevent it.

CHAPTER 4

Buteyko discovers the Diseases of Deep Breathing

Stalin had been dead eight years, and Buteyko had hated him since childhood.

The Doctor was born in 1923 in the village of Ivanitsa in the north of sunny, fertile Ukraine. His father was a carpenter and his mother a seamstress. Kostya (as Konstantin Buteyko was known by his family) was looked after by his older brother, Volodya. By the standards of the time, they weren't badly off; no-one in the family went hungry.

Volodya died of acute pulmonary inflammation while he was still a child, then in 1929, the Buteykos moved to the village of Popovka near Konotop in northern Ukraine so that Kostya could go to school. There, the Buteykos were caught up in 'collectivisation' - Stalin's policy of forcibly consolidating small private farms into larger collective ones under State control. Behind closed doors, Buteyko's father often cursed the Communist Party for herding people into these collective farms, seizing their grain and leaving them to starve, while his terrified mother tried to hush him.

"All those sheep just do whatever that cursed Georgian says," Buteyko's father raged. "But one day someone will get even with dear old Joe, and then he'll know all about it."

Buteyko inherited his father's hatred of Stalin, a hatred his mother silently shared. Until he made his great Discovery at the age of 29, his most fervent wish was to destroy the dictator, whatever it took, and take his revenge for the bandits who came to people's houses and plundered almost every last grain of corn. Only his Discovery would supplant this desire. Buteyko made his Discovery in just a few moments, but his path had been leading him towards it, step by step, for 29 years.

From his youth, Buteyko was unusually interested in machinery. When he left school in Konotop, his dream was to create an incredible craft that could burrow into the earth, sail, and fly to other planets, and to work on this idea he enrolled in the automotive engineering faculty of Kiev Polytechnic Institute in 1939. But at 6 am on 22 June 1941 Hitler's bombardment of Kiev began, and Buteyko and his course mates rushed to join up. The others became tank commanders, but because of his youth, Buteyko was sent to be a mechanic in a convoy that supplied medicines to the front and brought back the wounded. This he did for the rest of the war. He was near Berlin when the ceasefire was announced. He brought back a column of captured German vehicles to Moscow for the Ministry of Health, and decided to stay in the capital to continue his education. This time, however, he wasn't going to study automotive engineering but medicine. Having seen so much blood and death at the front, he resolved to study the human body as intently as he had studied machinery. Even at that time, he felt there was something wrong with modern medicine. As a child he had noticed that if he fell sick, his grandmother would treat him with herbs. Her teas, ointments

and tinctures were usually highly effective, but if his mother called in eminent doctors, they would prescribe useless tablets and injections.

At the front, Buteyko learned to be such a good mechanic that he could identify a fault just by listening to a vehicle's engine. He wanted to reach the same level of expertise with regard to the human body, and believed that the ability to reach a rapid and accurate diagnosis using the simplest means was one of the pinnacles of medical achievement. At the end of summer 1946, Buteyko entered the first year of the Medical Faculty of Moscow Institute of Medicine No. 1, but by his second year, he was already thoroughly disillusioned.

"They're absolute blockheads!" he complained to a former comrade from the front who asked him how his studies were progressing. He gazed sadly at the columns at the entrance to the Institute, where they had met. "And I have to say that medicine in this country is in an awful mess. They've got everything back to front." Noticing that his friend, usually so straightforwardly credulous, was smiling, he continued bitterly, "What use is it to diagnose diseases once they've developed? We should be able to prevent them long before they appear."

"So what have you decided to do?" asked his friend, beginning to listen more attentively.

"I'm going to transfer to preventive medicine!" said Buteyko resolutely. He turned the collar of his worn army greatcoat up higher - the November wind was icy. "Prevention is far better than cure."

"Well, give it your best shot and who knows, you might end up in the Academy of Sciences," said his friend in an attempt to cheer him up, and dragged him off to the nearest cellar bar.

Buteyko was finishing his third year when this friend next visited on a business trip. They went to the same bar.

"Well, how's the preventive medicine going?" asked his friend, pushing a glass of red wine towards him.

"Fine," said Buteyko, who was drinking mineral water instead of wine. He had exchanged his army greatcoat for a pale grey jacket. "Hygiene is so important, right from birth. Or even better, from the moment of conception! That's why I've started to study gynaecology and obstetrics." He saw that his friend was dumbfounded. "Why are you making a face? Do you think that's not for real men?" he asked.

"Well, why not, someone needs to take care of women in labour..." his embarrassed friend spluttered.

"It's not just about labour." Buteyko struggled to make himself heard above the music. "Mankind is becoming a degraded species and our future depends on the babies that women give birth to!"

"I suppose you're right," said his friend in a conciliatory tone, again sliding a glass towards him. People had started staring at them.

"A baby's health depends 80% on its mother." Buteyko swallowed half his bottle of mineral water in a single gulp. "Mothers conceive and then carry their children for nine months. And then they breastfeed."

"Of course, of course," his friend hastily agreed and gestured to the waiter.

"It's important whether the mother smokes or drinks while she's pregnant," continued the animated Buteyko. "And who monitors this process? Who looks after women in childbirth? Obstetricians! So they're the most important doctors!" he concluded triumphantly.

Throughout his life, Buteyko put his heart into practically whatever he did, but he studied medicine with particular enthusiasm. He was a straight A student and top of his year. The Institute's library was not enough for him. Only qualified specialists were normally allowed to use the larger central medical library, but a special exception was made for him because of his excellent marks. Buteyko dived into the vast ocean of books.

Academician Kvater, the Institute's Head of Gynaecology, noticed Buteyko's extraordinary efforts and suggested he investigate a particularly tricky illness: preeclampsia. And his teacher and idol, Academician Dariiev, advised him to look at malignant hypertension. According to some, these are in fact the same disease, but it is known as 'preeclampsia' in pregnant women. So from his third year, Buteyko researched these two topics like a man possessed. And as a result, the same thing happened to him as to many other medical students before him: towards the end of his studies, he too developed this virtually incurable disease. He had been an excellent sportsman who trained for hours, boxed well and feared nothing, but now he was helpless in the face of impending death. His graduation with distinction from the country's top medical school and postgraduate studies under Academician Dariiev meant nothing to him if he only had 18 months to live. At times his blood pressure reached over 212 systolic, he had a terrible headache and his heart felt as if it was being squeezed in a vice. Buteyko was in the Soviet Union's largest centre of medical expertise and yet no-one could save him. Even cancer seemed mild in comparison. Cancer could be treated in its early stages, malignant tumours could be cut out and the patient could have radiotherapy. The progress of the disease could be temporarily halted, sometimes for long periods. But patients stood no chance with malignant hypertension - it would destroy the strongest body within a year or two, as Buteyko knew only too well. He had access to scarce medicines and even drugs from abroad. He was studying under the country's top specialist in hypertension, Academician Dariiev, and still he was doomed! Drugs would have no effect and he was afraid to tell Dariiev the whole story in case he was excluded from postgraduate study. But to judge by his sympathetic expression, Dariiev had guessed most of it - he looked at Buteyko as if he was already lost. Dariiev considered Buteyko one of his best students and had sometimes hinted at big

plans for him.

Then suddenly at the beginning of 1952, a miracle happened. Buteyko not only slowed his progress to the grave, but reversed it. His face became suffused with a healthy glow and his grey-blue eyes shone for the first time in months.

The miracle occurred on 7 October 1952, a night that Buteyko would remember for ever. Although his secret hatred of Stalin had recently become particularly acute (Buteyko was dying and had not managed to finish off the mortal enemy of the Ukrainian people), it now paled into insignificance along with his other dreams and plans. That night, Dr Buteyko would make the Discovery for which the medical mafia would vilify him for years and make nine attempts on his life - including poisoning, road accidents, and attempts to lock him in a psychiatric hospital. He would pay for his Discovery with estrangement from his wife and family.

But Buteyko's Discovery was capable of saving hundreds of millions of lives - of which his own was only the first. It could have given him a comfortable life in the West had he wanted. His Discovery signalled a revolution in medical science as it had existed for thousands of years. One day people all over the world would celebrate the anniversary of his Discovery, for which the Doctor deserved a Nobel Prize and his name to be written in golden letters in the annals of world medicine for centuries to come. People saved from suffocating asthma attacks, hypertensive crises and diabetes would worship him as an icon, and patients would queue for days to see him.

On that Moscow evening he found a way to save himself (and millions of others) from physical suffering, but subjected himself to years of emotional anguish that was no easier to bear. The medical establishment stuck their knives into him, both metaphorically and literally - if Buteyko's Discovery became standard medical practice, their scalpels would rust from lack of use. And what would happen to pharmacologists if his Discovery made mountains of pills redundant and left warehouses brimming with the prized medicines that were in such short supply? A furious army descended on the pioneer and tried to crush him. Dr Buteyko was forced to live with the weight of their enmity for the rest of his life.

It just seemed like an ordinary day. It was evening and Buteyko was on duty in a hospital, surrounded by a horde of noisy students who were also staying for the night shift. He was enthusiastically describing how his ideal doctor would diagnose illnesses.

"Just think," he stepped to one side to let past a nurse wheeling a trolley of medicines, "how do doctors mostly conduct an appointment with a patient? The patient has hardly come in before the doctor tells him to undress, turn around and breathe in." Buteyko acted it out to show what he meant. "We send urine, blood and faeces to be analysed." Buteyko turned his head away from the imaginary patient and handed an invisible sheet of instructions to one of the students. "No-one actually looks at the patient - no-one notices his eyes, the way he walks or his mood. But you can tell a lot from these things - sometimes almost

everything."

Buteyko had only been working as a doctor for about a month, but he wasn't just sharing his own experience. He had absorbed the opinions of his mentor, Academician Dariev, who detested the overly formal and bureaucratic way doctors treated their patients.

"The patient is right in front of you. He hasn't said a word, but you can tell a lot about him. Here's a concrete example."

The Doctor turned to a well-built young man in grey striped pyjamas who was walking towards them with an awkward gait.

"Here's a typical asthmatic!" stated Buteyko categorically. "You can see that he swallows air like a fish."

The young man was indeed breathing with difficulty. The students glanced at each other in wonder. They liked this energetic teacher with his lack of vanity.

"I'm afraid you're wrong, Doctor," the patient croaked. "I don't have asthma, I've got malignant hypertension."

Buteyko saw the eyes of a dark-haired, pretty student cloud over with embarrassment and felt he was burning with shame. She had been gazing at him with such adoration just a few moments before.

"It can't be malignant hypertension!" exclaimed Buteyko as he followed the patient's slow progress along the corridor with his eyes. "That careful, restrained gait, shortness of breath, open mouth - they're typical signs of asthma. But he says he's got malignant hypertension. How could that be?"

The pretty student's face, flushed with discomfiture, and the hushed mutterings of the other students only spurred him on. Dr Buteyko's diagnoses were rarely wrong, let alone so short of the mark! Suddenly a thought flashed across his mind: what if the deep breathing that was typical of asthmatics and so pronounced in this hypertensive patient was not an external sign of the disease, but the *reason* for it? He felt dizzy with excitement. Saying he was urgently needed elsewhere, he sent the students away and hurried after the hypertensive patient.

A short conversation with the patient confirmed his nascent hypothesis. This 21-year-old patient was a weightlifter, which meant he inhaled and exhaled deeply as he squatted then lifted barbells. Buteyko remembered his own training. He too had lifted heavy weights and puffed like a steam engine. He had been forced to give up sport when he became ill, but he still breathed deeply.

Buteyko shut himself in the staffroom alone. The cramped room was dimly lit by a table lamp and outside it was dark. The window panes rattled slightly from the gusts of north wind. He had managed to leaf through about half of the patient's

case notes when he felt a hypertensive crisis beginning. They usually came on in the evening or at night. He would feel the blood throbbing like a hammer in his temples, a sure sign of a sharp rise in blood pressure. The back of his head would feel as if it was on the point of splitting, his pounding heart would be seized with pain and his right kidney would ache. From habit, Buteyko put his hand in his pocket for the medicine that he always carried, then abruptly pulled it out again. What good was medicine if the underlying cause still existed? And that very evening, he had begun to suspect that deep breathing was the reason for his hypertension. So he needed to take the bull by the horns. 'Physician, heal thyself' echoed through his mind.

Buteyko laid the patient's case notes to one side. He took his hands from the desk, leaned against the chair's hard back, and began to breathe more shallowly. No deep inhalations or strong exhalations, he told himself. Breathe as shallowly as possible. Just breathe a little.

He felt as if he was running out of oxygen. He wanted to open his mouth and swallow great gulps of air, but he restrained himself. A minute passed, then two, then three, and the miracle occurred. A true miracle. Buteyko's headache began to disappear and the pounding in his temples ceased. The pain in his heart subsided, leaving him feeling wonderfully relaxed. His aching right kidney felt as if it had been soothed with a hot compress.

"It worked!" Buteyko pushed up the left sleeve of his lab coat slightly. The yellow hands of his watch showed quarter to eleven. "It actually worked!" Buteyko couldn't quite believe it. He deliberately took several deep breaths and his symptoms instantly began to return. He reduced the depth of his breathing, and the symptoms disappeared again.

He had been right! His hypothesis had been proven in a very concrete fashion. He couldn't stay in the cramped staffroom a moment longer - he needed to confirm his findings using seriously ill patients! He was a scientist after all (albeit a young one) and knew that a successful experiment on himself was insufficient proof.

In Ward 14 on the third floor, Buteyko found an elderly patient who was blue from an asthma attack and looked as if he was about to lose consciousness. Nurses were rushing around. They had already tried everything, including pure oxygen.

"Close your mouth and don't take long breaths," Buteyko ordered him in a deliberately peremptory tone.

"But I can't..." gasped the old man, trying to grab the rubber oxygen pipe from Dr Buteyko.

"Close your mouth!" urged Buteyko. "And press your hands to your chest." He crossed the old man's bony hands on his chest. "Stay as quiet as possible. Don't breathe deeply."

He gently pressed the patient's hands to his chest. In two minutes, the terrible bluish tone disappeared from the man's cheeks. He no longer grasped for the oxygen pipe, but instead gazed at Buteyko as if bewitched. The attack had clearly started to pass.

Until 3 am Buteyko visited as many wards as possible. Asthma attacks, angina, ischemia, and hypertensive emergencies all seemed to succumb to shallow breathing. Patients who had been rescued from terrible attacks stared at him in wonder as he left their bedsides.

At 3.10 am, Buteyko was again sitting at the desk in the staffroom. He hadn't put on the overhead light, but was using the old table light with its green shade. The wind had started to die down and the window panes rattled less. The lampshade cast a shadow on the uneven surface of the wall opposite his table. Buteyko had his elbows on the desk and his head cupped in his hands. The powerful technique that he had discovered that night had undeniably worked. Encouraging a seriously ill patient to breathe more shallowly would bring him out of semi-consciousness and enable him to lead a full and healthy life. Encouraging him to breathe more deeply would lead him directly to the Pearly Gates.

It was possible to cure people without pills, injections and surgery! Buteyko raised his head. The high priests of the cult of medicine would never believe it - or they wouldn't want to. They would think he was mad. Who was he, after all? A greenhorn. And his Discovery would turn modern medicine on its head. Buteyko clutched at the desk top. If the medical establishment had not believed poor Ignaz Semmelweis and murdered him in an insane asylum for suggesting that surgeons should wash their hands with chlorine solution before operating, then they would certainly not believe him.

The lamp flickered and for a moment lit up the far corner of the room, where old files were piled up. To the over-wrought Buteyko, it seemed that sympathetic eyes were gazing at him from the dark corner. He had seen those eyes once in an old engraving in a book - they were the eyes of the murdered Semmelweis...

CHAPTER 5

Mutin

Dr Buteyko did not occupy his boss's office for long. The cuts on his face began to heal and the bruising hurt less, helped considerably by the Doctor's practice of the volitional elimination of deep breathing. Buteyko returned to work, and the joy of his co-workers knew no bounds. The Doctor's prediction of his imminent death had only partly come true - he was alive and would continue his work.

Only Andrey Mutin did not rejoice. He forced a smile onto his flabby, pockmarked face when Buteyko cheerfully strode into the office, but he wasn't happy at all. The unsuccessful 'accident' had dealt his career a substantial blow.

"Well, you don't appear to have been badly hurt," Professor Pomekhin had acerbically remarked during that fateful night after the accident when they were alone. The Boss's cold and disdainful expression was more eloquent than words: you didn't manage to poison our enemy or smash his head in an accident - you are incompetent, young man!

Seeing Buteyko heading directly for his beloved calibrated ballistocardiograph, Mutin solicitously bent over the equipment on the other side of their renowned complexator and industriously tightened a slightly loose screw.

"That's it, Andrey, work hard," said Buteyko half jokingly from the other side of the complexator's couch. "Keep busy as a bee..." The healing cuts didn't diminish the unusual attractiveness of the Doctor's face.

"I just do my duty, Doctor Buteyko, that's all," said Mutin, attempting to use the same jocular tone as his boss. But he could feel how his pitiful smile stretched artificially across his face and he hurried out of the room, supposedly to fetch an urgently required instrument.

Shutting himself in the toilet, he lit up and began to take deep gulps of strong filterless cigarettes that burned his throat. He was in a fine pickle! He could no longer expect patronage from Pomekhin. And Buteyko - he flicked ash onto the graffiti-covered windowsill - Buteyko now appeared to know about Mutin's schemes and, it would seem, had had a fairly good idea all along. The reek of the chlorine bleach made Mutin grimace.

The pair of them were such geniuses! Pomekhin cut patients open left, right and centre and dreamt of nothing less than a Nobel Prize. Buteyko would make patients suck in carbon dioxide until they almost turned blue and wanted to share Hippocrates' podium. Mutin meanwhile was stuck in the middle and had to pretend to worship both of them... He spat on the floor and wiped the spittle across the dirty tiles with his foot.

It was clear that Buteyko wasn't taken in by his deception. The man could predict the future, for heaven's sake! The Doctor had foreseen an attempt on his life - perhaps he could even read thoughts at a distance. And Pomekhin would

only be happy if Andrey slit the Doctor's throat in a dark stairwell, thus turning off the carbon dioxide valve that posed such a threat to the Professor.

The stub of the cigarette burned Mutin's fingers and he threw it away. They both treated him like dirt, so why had he got mixed up with their intrigues? Because he wanted a PhD and a decent career and, at the end of the day, for money, which not even the socialists had managed to abolish. The smell in the lavatory was beginning to make Mutin feel sick.

But what was the difference between him and them, these geniuses? Neither would turn down a Nobel Prize. And what else did a Nobel Prize mean, if not widespread acclaim in your field and more titles - and money, of course. He, Mutin, was no worse than either of them! Unlike the Professor, he hadn't had well-connected intellectual parents, and unlike Buteyko, he didn't have God-given talent. But that didn't mean he had to spend his life being grateful for crumbs from their table. Mutin's father was a carpenter who spent his pay-packet on drink. "Look at me, son, and learn," his father would say half cut. "I've worked like a dog at that factory for so many years, and I live like a dog. Honesty doesn't pay..." His father had been absolutely right! Pomekhin was hardly an honest medical practitioner - he cut open patients like lambs, but wouldn't give up his position to the talented Buteyko because he believed it was his by right.

Mutin came out into the corridor and took a deep breath with relief. The Doctor's presence in the clinic had clearly undermined the Professor's position. No matter how righteous Pomekhin tried to appear, Mutin wouldn't allow him to play the hypocrite. They were partners in crime now. Mutin wouldn't slit the Doctor's throat, he wasn't such a fool. But Pomekhin would still need him for tasks such as informing him of any seditious talk, stealing essential documents or interfering with expensive equipment at the right time. The Professor needed to shore up his position... and so he would have to make some small sacrifices.

CHAPTER 6

Buteyko's wife arrives. His conflict with Pomekhin worsens. An attempt to disrupt his dissertation defence

Marina's arrival was completely unexpected. Buteyko had scarcely told her he had been allocated a three-roomed flat when she appeared with their daughter, Irina.

"I thought you'd move at the end of August," he remarked partly in joy, partly in bewilderment, as they were looking around their new flat.

"It's nice here," said Marina, opening the balcony door and leaning against the railing. The warm July sun played on her tanned shoulders. A fiery brunette, she was irresistible in her red and white dress. The thick dark-green fir trees came up almost to the balcony and a fresh breeze was blowing from the newly constructed Novosibirsk Reservoir that lay beyond them.

"The end of August, you say." Marina coquettishly pouted and pulled the seven-year-old Irina back as she tried to put her head through the metal railings. "Irina needs to start school on 1 September, and we need some time to look around and settle in."

"Of course... you'll have plenty of time to get used to being here and swim in the reservoir." Buteyko came out onto the balcony and put his arm round his wife.

"What have you been up to without me? You haven't been running after other women, have you?" Marina pulled him towards her by the tassels of his Ukrainian peasant-style shirt and for a moment drowned in his blue eyes, so near to hers.

"I've mostly been spending time with my complexator," replied Buteyko with a slight frown. "But what about you in the city... didn't you drive anyone wild with your Spanish dancing?"

Seeming to shrug off the joke, Marina lowered her head and turned towards the wood again. From their position on the second floor they couldn't see the endless expanse of water, but she suddenly wanted to see the massive reservoir and its white-tipped waves, and to hear them lapping against the shore. 'Spanish dancing' indeed! She gazed at a young fir tree swaying in the breeze just below the balcony. She didn't think that her husband could really be jealous, even though she had many admirers in Moscow. Konstantin never entertained such base suspicions - he was above all that. He continued to hold her, but Marina felt his grip suddenly slacken and his hands grow cold. He might be above petty gossip and squabbles, but he could never forgive disagreement with his principles, whether political or scientific. However, it was in these very areas that they disagreed. Marina had a miniature portrait of Stalin above her dressing table, and her husband's face darkened every time he saw it. Konstantin was a fanatical believer in the power of carbon dioxide, while she had her doubts. With time, these polarised opinions deepened the gulf between

the couple. Then Professor Pomekhin had appeared with his mistrust of Konstantin's obsession with CO₂... It all fitted together, and the pattern did not bode well for their marriage. Marina pushed her dark hair back and stroked her daughter's head.

"Mummy, can I play outside?" Irina seized her by the legs. "Can I?"

"Run along, but stay in the courtyard." Marina buried her head in her husband's warm shoulder.

"Did Pomekhin come on a business trip to Moscow?" asked Buteyko asked his wife, stroking her back. She nodded.

"Did he come to see you?"

"Yes, he dropped in for a while," Marina replied innocently, but Buteyko felt her back stiffen.

"What did you talk about?" Marina heard the tension in his voice. His chiselled chin suddenly seemed to cut into her neck.

"This and that." She gave a false smile. "He told me about your life here in Siberia."

"And about my health too?" Buteyko continued.

She remained silent.

"He's worried about my nerves. He suggested that I should go to hospital!" Buteyko took Marina by the shoulders and held her at a slight distance. Not even her tan could disguise the blush that suffused her beautiful face.

"How did you know?" she asked in a strained voice. A frown distorted her features.

"Did you read the article about my complexator in the last issue of 'Inventor and Rationaliser'?"

"The complexator against hypertension?" asked his wife in an animated tone, "The one with the photograph showing the complexator and you sitting next to a patient?"

"She was terminally ill - she only had two or three months to live." Buteyko let go of her shoulders and struck the balcony railing so hard that it shuddered. "They," he indicated somewhere beyond the wood, "said she wouldn't survive. They can't cure malignant hypertension, but there's nothing 'malignant' about it. We got the patient back on her feet - and not just her!" Buteyko rubbed the bridge of his nose. "The results of our research are incredible! If our future observations confirm them, it will mean a revolution in the way we see the most important

processes in the human body - the circulation and breathing. We'll be able to publish Dr Buteyko's 'medical secret'. We've already cured around 15 cases of severe hypertension quickly and easily - that's the first proof of our new theory..." Buteyko stopped mid-sentence and was silent for a moment. "That's how the article ended. The person who gave permission for it to be published in the journal is no longer on the editorial staff."

"Why not?" asked Marina in a frightened voice.

"Because Professor Pomekhin and his cronies are very concerned about my health." Buteyko abruptly stooped to kiss his wife hard on the mouth and resolutely stepped from the sun-drenched balcony into the shady room.

The Doctor's domestic life became more orderly with his wife's arrival. He practically stopped spending nights at work with his complexator, and his evening vigils in the laboratory grew more seldom. The flat was only three bus stops away from the Institute for Experimental Medicine (or, to give it a more accurate name, Professor Pomekhin's clinic). Their Institute had at last moved into a specially constructed building on the grounds of the Siberian Science Centre's medical complex. It seemed as if they now had the right conditions to conduct scientific research, but such was not the case. Buteyko's situation rapidly became more difficult.

Professor Pomekhin longed to become a member of the Academy of Sciences, and so was not at all pleased when Buteyko gave a brilliant presentation to the Siberian Branch's Scientific Council on the diseases of deep breathing on 11 November 1960. The Doctor backed up his findings using such detailed graphs and diagrams (produced by the complexator) that no-one could possibly dispute them. Faced with such hard evidence, Pomekhin was forced to announce in his concluding remarks that the results were highly interesting and that the research should be continued.

However, the Professor and his fellow surgeons soon returned to their senses. Continuing the research would mean less work for them with their scalpels and they would become the Doctor's underlings. It was far easier for them to systematically persecute the Doctor and discredit his Method. When they failed to physically eliminate Buteyko, Pomekhin and his cronies started spreading rumours about his mental health and insane obsession with carbon dioxide. However, patients continued to flock to Buteyko. Blaming draughts, the Professor ordered that the door leading directly to his consulting room to be blocked off, forcing patients to go through other (specially created) reception areas.

Pomekhin hinted several times to Dr Buteyko that the head of such an elite laboratory of functional diagnostics as his should at least have a PhD. This was, he said with a significant upward glance, the opinion of those 'above'. In mid 1962, it was announced that the Scientific Council of the Siberian Branch of the Academy of Sciences would soon be meeting to assess work by young scientists and award PhDs. Buteyko realised that he couldn't miss this opportunity. He would have liked to present his discovery of the diseases of deep breathing, but

realised that Pomekhin would never allow this as a topic. At the same time, he needed the postgraduate qualification in order to continue his research. He therefore decided to present his calibrated ballistocardiograph. He already had a patent for the instrument that should have entitled him to PhD without an oral defence, and he'd written a scientific paper on it some time ago. He assumed his PhD was safely in the bag.

However, Buteyko had underestimated Professor Pomekhin. Before their estrangement, Buteyko had given him his paper on the ballistocardiograph to assess, as his academic supervisor. Pomekhin had held on to this paper for a long time, seemingly without reading it.

On 23 August, a list was posted showing the names of those who would defend their papers: Buteyko's name headed the list, with the date for his oral defence - 2 September. Buteyko was slightly shocked by the date - why hadn't Pomekhin given him any warning? Looking more closely, Buteyko saw that someone had pencilled a cross next to his surname. He took off his glasses and carefully wiped them, then looked again. The cross was still there. He took several steps away from the board, and, so as not to attract attention, he mechanically opened the evening newspaper that he was still carrying. There was a picture of Khrushchev in a summer suit shaking hands with a cosmonaut in army uniform. Buteyko read the caption twice, then crumpled the paper up. He couldn't think about space exploration just now! Running up the stairs two at a time, he burst in to the office of the Secretary to the Scientific Council.

"What are these crosses on the list?" he demanded of the Secretary, who was sitting peacefully smoking.

"Crosses?" the Secretary put down his cigarette and looked at him mockingly. "It was probably a joke." He smoothed his slicked-down hair. "But of course, in every joke there is some truth..."

"What do you mean?" Buteyko loosened his tie, feeling it constrict his throat.

"One of your two referees has refused to take part in the dissertation defence¹." The Secretary again took up his cigarette.

"A long time ago?" angrily enquired the Doctor.

"Over a month ago perhaps," said the Secretary after a few moments' thought.

"Why on earth didn't you tell me?" demanded Buteyko.

"Everything was really uncertain," the Secretary replied, shuffling the papers on his desk. "Oh, and another piece of bad news. Your other referee, Academician Parin, hasn't submitted a review of your paper."

¹ In the USSR, PhD candidates had to submit their dissertation along with reviews from two official referees. During their oral defence, they had to present a summary of their dissertation to a panel. Their referees then made speeches or their reviews were read.

Buteyko felt his right kidney beginning to ache. This was a blow beneath the belt!
Only ten days until his oral defence and things were such a mess!

"I've been here the whole time. What stopped you from telling me?" He could
feel the Secretary's mocking gaze on his back as he left the room.

CHAPTER 7

The Boss rejoices

"So he's already been to see you? Thank you for letting me know."

Pomekhin carefully replaced the telephone receiver. 'The IV Anti-cancer Conference has just finished in Moscow,' he read, trying to concentrate on the article again. 'Several representatives of the Siberian Branch of the Soviet Academy of Sciences took part... Two papers from Novosibirsk were presented... Dr Martynova showed that the aetiological agent of human breast cancer, in contrast to animals, is not transmitted to children by the mother's milk, as was thought until now...'

He must know now that one referee has refused to take part and the other hasn't submitted a review, thought Pomekhin, removing his white cap and laying it beside him. He cracked his finger joints and stretched out his legs in enjoyment. He liked this new, spacious office on the third floor. It was quiet and peaceful, and the smell of pine needles drifted in through the window. The hospital complex was located right in the middle of a pine forest. Everything was brand new, spick and span, and it was only a pity that the whole building didn't belong to them.

Yes... he wouldn't like to be in Buteyko's shoes at the moment. Having one referee decline to take part and another fail to submit a review would depress anyone. There were still ten days to go, but what could Buteyko do in that time? The Professor smugly smoothed back his hair, fanned by the fresh August breeze.

It had been easy to sort things out with the first referee, Sharadov - Pomekhin had only needed to hint at the Doctor's supposed lack of mental stability and that was enough. The Academician wasn't one to take a risk.

Things had been far harder with the second referee, Parin, a world-famous physiologist. There was no pulling the wool over his eyes. He had served a term in prison under Stalin, but clearly it hadn't taught him much - he believed in standing by his word. Pomekhin remembered Parin's blank comprehension when the Professor had asked him not to submit a review of Buteyko's work. In the end, Pomekhin pretended that the Doctor had decided to postpone his defence. Parin had given him such a look! The Professor shuddered at the memory. "Well, if that's the case..." Parin had said shrugging his shoulders, "but be careful you've got your dates right, I'm going on holiday soon...". In fact, Pomekhin had already heard about Parin's upcoming holiday and had set the date for Buteyko's oral defence accordingly. Pomekhin smiled in satisfaction. Even if Buteyko managed to find a replacement for Sharadov, he couldn't do anything about Parin. That would mean bothering a world-famous academician, and of course Buteyko didn't know the reasons for Parin's 'failure' to submit a review. Pomekhin glanced at the calendar. Reliable sources had informed him that Parin had left Moscow on his long-awaited holiday a few days ago. Locating him now would be like trying to find a needle in a haystack.

CHAPTER 8

Buteyko searches for Parin. The lead-up to his Discovery

After visiting the Scientific Council Secretary, Buteyko went straight to the Rector of the Novosibirsk Medical Institute. The Rector was perhaps the only person who could help him - he had the power to replace a referee a few days before the defence. The Rector readily understood the opposition Buteyko faced for his advocacy of carbon dioxide, as he himself had provoked massive opposition in the Ministry of Health for daring to propound the theory that rheumatism was caused by a virus.

"You say that Sharadov refused to support you," said the Rector, leafing through Buteyko's dissertation. "How very odd!" The Rector's bowed shoulders looked as if they were slumping under a heavy burden. "How long is it until your defence?"

"Nine days, not counting today," sighed Buteyko.

"We know that you are an outstanding diagnostician." The Rector laid the manuscript aside. "You have the patent for the calibrated ballistocardiograph." He didn't speak for a moment. "Of course I would be glad to be your referee!"

It was as if a weight had been lifted from Buteyko's mind.

I'll ring Academician Parin in Moscow, he thought, and find out why he hasn't submitted a review. It will mean disturbing him, of course. I'll fly to the capital to bring back the review myself. It'll be difficult, but I should make it in time.

So Buteyko imagined, but subsequent events were to complicate his task still further, so much so that success would have been beyond the capability of any other person. Buteyko however was helped by his gifts of foresight and telepathy, in which few people believed at that time. Academician Parin had publicly denied the existence of telepathy on many occasions, but these events would make him change his mind. For years afterwards, he would continue to ask Buteyko's acquaintances how on earth the Doctor had managed to do what he had done.

Buteyko rang Parin at 10 pm from his office. It was Parin's daughter who answered.

"Dad flew to Armenia a few days ago with Mum. They're planning to travel around the Caucasus by car."

Buteyko nearly dropped the receiver. "Haven't they at least left an itinerary?! Please understand - my PhD is at stake!"

For a few seconds, the only sound was crackling on the line.

"I've said more than I should," the girl said, her voice trembling. "Mum wanted to take Dad away somewhere where no-one could bother him about work, he's so

tired. That's why they've gone on a road trip instead of staying at a hotel. I only know they've gone to the Caucasus, and they probably don't know their itinerary themselves."

It was at this moment that Buteyko understood that Professor Pomekhin had set him up. For a start, it was summer and it would be difficult to get a ticket south - and that was assuming he knew where to go. Perhaps it would be better to postpone his defence.

But, on the other hand, it was difficult for the Scientific Council to assemble, and this would probably be the first and last time they met at the Institute. If he didn't manage to defend his dissertation now, he might not get another chance - Pomekhin for one would make sure of that.

He and Marina spent a restless night - she shared his feeling of foreboding. Buteyko had told her the bare facts without getting into details. It wasn't that he didn't trust his wife, but given that she might talk to Pomekhin behind his back, he decided to play safe.

"Professor Pomekhin's up to something with my dissertation defence," he muttered vaguely to his wife when they were in bed. "There was some kind of cross next to my name."

Early next morning, he took almost all their savings and set off to the airport. He left a note for his wife on the kitchen table. "I need to fly to Moscow urgently to talk to someone about my dissertation. If anyone asks, you don't know where I am, I'm away on business." He wasn't actually going to Moscow, but God helps those who help themselves.

At the airport, there was such a long queue to buy tickets that Buteyko realised just how right Pomekhin had been to count on the summer rush.

"Apparently all the tickets up until 28 August have been sold," said a woman in a red headscarf who was standing in front of Buteyko.

"So why is everyone queuing?" asked the Doctor with a grim smile.

"They're waiting just in case - maybe someone won't show up or maybe they'll find some extra seats." The woman took off her headscarf and dabbed her hot, red face with it.

In the end, the airport doctor, an acquaintance of Buteyko's, managed to get him a ticket to Adler, a resort on the Black Sea. Buteyko knew exactly when and with whom to make friends. Two hours later he was sitting comfortably in the plane, his head pleasantly cooled by the current of air from the vent above. He could see the plane's right wing and its rows of grey rivets. Why was he flying to Adler? Buteyko himself would have been hard pressed to give an answer. Academician Parin and his wife could be in Tbilisi, Sukhumi, or anywhere. But as he'd gazed at the map of the Caucasus, the Doctor's inner voice had told him

to go to Adler.

The sight of the pretty white clouds floating above the wing lulled Buteyko into a doze, but he didn't manage to sleep. Why had his Discovery caused him so many problems? For the umpteenth time he remembered that cold October night in 1952 when he had mistaken the hypertensive patient gasping for breath for an asthmatic. The patient had been the last link in a chain of logic that he had been constructing for years.

The first link in this chain had been an unusual incident in the winter of 1949 when he was in his third year at medical school. One evening while on duty at the hospital, he had listened to the chest of a ruddy, muscular 21-year-old patient who appeared the picture of health.

"Breathe deeply," Buteyko directed the patient, pressing the stethoscope to his broad, hairy chest. "And even deeper!"

Suddenly, something unexpected happened: the seemingly healthy patient collapsed on to the floor! Buteyko tried his best to bring him round, then rushed into the corridor to look for the assistant duty doctor. An elderly nurse was sweeping the floor.

"What's the matter?" she asked, straightening up and rubbing her side.

"I've just been listening to a patient's chest, and he fainted!"

"Don't worry," said the nurse, instantly understanding the situation. "You've just made him over-breathe." She calmly soaked some cotton wool in ammonia and held it under the patient's nose. "He'll be better in a moment, it happens all the time."

The patient was indeed back on his feet in just a few moments.

"He collapsed from over-breathing!" Buteyko told the assistant duty doctor.

"What's so unusual about that?" asked the doctor, shrugging his thin shoulders. "He probably fainted because too much oxygen went to his brain. It sometimes happens when students listen to patients' chests, especially heart and asthma patients'."

Buteyko was perplexed by this explanation. It just didn't seem right. The students were constantly lectured about the benefits of oxygen and told to use an oxygen mask to treat heart attacks, yet this young heart patient had fainted when he wasn't having an attack or breathing pure oxygen, just breathing deeply. And the doctor had told him that this was a common phenomenon - something just wasn't right.

Buteyko's high grades and status as top student entitled him to use the central medical library, to which students weren't normally allowed access. He went

straight to the library after he had finished his shift and consulted a pile of books. He became convinced that his doubts were well founded. In 1949 there were already a number of publications that pointed to the dangers of deep breathing. Various researchers had noticed that deep breathing removes excessive amounts of carbon dioxide from the body, leading to a fall in blood carbon dioxide. This increases the affinity between oxygen and haemoglobin, known as the Bohr effect. As haemoglobin then releases less oxygen into the tissues, the tissues become starved of oxygen. Although it seems paradoxical, the deeper you breathe, the less oxygen your tissues receive.

Buteyko was still confused: what had the assistant duty doctor meant when he said that the patient had fainted from too much oxygen going to his brain? He raised this question a few days later.

"The last time we spoke, you said the patient fainted from an oversupply of oxygen to the brain, but world-famous scientists say the opposite," said an embarrassed Buteyko, listing the names of articles and summarising their content.

"Stop talking drivell!" snapped the young doctor, normally so calm and friendly. Buteyko was stunned into silence by this turn in the conversation. "It's winter, your brains shouldn't be addled from heat-stroke," he added, softening as he saw Buteyko's confusion. "But don't go spouting this rubbish to Academician Dariiev. Great scientists have confirmed that oxygen regulates breathing - he has himself, you know." The assistant doctor raised his eyes to the ceiling in veneration. "The Academician thinks well of you, don't spoil it. And as for that incident where your patient collapsed... he didn't faint from a lack of oxygen but from an oversupply." He noticed disbelief in Buteyko's eyes and added, "Countless processes take place in the body, thousands of chemical reactions. Do you really think we understand everything? Not at all, far from it! But the general direction is clear, and you shouldn't try to depart from it." The young doctor patted him on the back. "You'd better get back to the Institute, or, heaven forbid, you'll be late for lectures. Learn the basics first, master the lower slopes, and worry about the peaks later."

The sun shone through the aeroplane window, and Buteyko could feel that he was flying south. The stewardess served lemonade in plastic cups and Buteyko sipped his with enjoyment.

The young doctor's explanation that the patient had fainted from excess oxygen hadn't convinced Buteyko. He held his tongue, but the seeds of doubt had been sown.

Buteyko made the second link in the chain of logic as he watched seriously ill patients dying. Again while in his third year of medical school, he realised that becoming a doctor would mean waging a life-long battle against death. He decided to visit the terminal ward more frequently at night so that he could observe hundreds of deaths. This was an arduous task for such a young man, but Buteyko put the interests of science above all else.

He would remember those terrible night vigils in the terminal ward for the rest of his life. Hardly any patients left the ward alive - sooner or later, they were covered with a white sheet and carried out feet first. It is hard to stay beside a dying person's bedside in their final moments, but Buteyko sat there for hours from choice, rather than duty. He put this experience to good use - he became able to predict the death of patients with such accuracy that the nurses on the ward started to whisper behind his back that he was a sorcerer. At first they didn't trust his judgement and shook their heads sceptically, but all doubts were banished when Buteyko correctly predicted the death of a major factory boss almost to the minute.

The duty doctor quietly warned him not to parade his abilities too much.

"I understand," the old doctor said, shutting the door of the duty room behind them, "that you want to cut a bit of a dash." He glanced almost fearfully around the shadowy and empty room. "But people might get the wrong idea. You've only got two months until you finish medical school. Do you think no-one noticed that you predicted the factory boss's death with such accuracy? He wasn't a government minister, but these days you can lose everything if a foreman dies on your hands. You're just lucky that you've got Academician Dariiev to protect you." The doctor looked straight at Buteyko. "You're playing a dangerous game with your quackery and hunches."

Buteyko finished his lemonade. His night vigils in the terminal ward were the second step towards his Discovery. His senior colleague had feared for him, and rightly so. Stalin's suspicion of doctors, culminating in the alleged 'Doctors' Plot' to kill the Soviet leadership, confirmed this. Most importantly, the old doctor hadn't believed that it was possible to predict a patient's exact time of death. The incident with the factory boss had been blown out of proportion, of course. Buteyko had said only that the patient just had four or five hours left to live, but according to the subsequent rumours, Buteyko 'the sorcerer' had predicted his death to the minute.

Buteyko alone knew the secret of this 'sorcery'. As he had sat beside the dying, he had noticed that the onset of death directly correlated to an increase in the patient's depth of breath: the more deeply a patient breathed, the sooner he would die. The moment of death was as a rule characterised by a final deep breath followed by an exhalation, and then the patient died. After watching dozens of deaths, Buteyko had learnt to use the depth of breath as a way of predicting with reasonable accuracy how long a patient had left.

This connection between the depth of a dying patient's breathing and onset of death was the second step towards his Discovery. At first he thought, like others before him, that patients' bodies were trying to combat death by breathing deeply. Only after his Discovery did he understand the true role of deep breathing in dying. It was Mother Nature's way of cutting short the patient's torment, and the last gasp was like a knife in the heart to end their suffering completely.

After Buteyko discovered the diseases of deep breathing in October 1952, he spent a month poring over books in the central medical library before sharing his Discovery with anyone in his department. As before when he had studied the topic (after he had made the patient 'over-breathe' and faint in 1949), he became convinced that a number of established medical facts could have made this discovery possible considerably earlier. He re-read articles that said that during deep breathing the body loses excessive amounts of carbon dioxide. He even found an article that said that unusually low levels of CO₂ had been observed in the cells of cancer patients. In all, there was every reason to believe that deep breathing was the cause of many widespread diseases. It would have taken years to compile a list of all of them, but Buteyko already knew for sure that it included asthma and hypertension, and he could add renal colic to the list. So why had no researcher thought to connect the dangers of deep breathing with diseases that were so obviously caused by its effects? After all, scientists had objectively proven that the Bohr effect resulted in oxygen deprivation, and that CO₂ deficiency caused vascular spasms. For example, what made an asthmatic gasp for air? Bronchial spasms. And what caused these spasms? The body's reaction to losing too much CO₂ during deep breathing. It was so obvious and yet the majority of doctors 'hadn't noticed'.

The plane was descending and Buteyko felt the change of pressure in his ears. No, it wasn't that they 'hadn't noticed', but the prejudices of the establishment had proved too strong. The English Professor Joseph Haldane had come very close to establishing that breathing was regulated by carbon dioxide, but then Heymans and Cordier discovered oxygen receptors and confirmed the oxygen theory of breathing. Haldane's research was buried. And as a result, millions of patients with asthma and hypertension were suffering and it was beyond the power of oxygen-obsessed medicine to help them.

CHAPTER 9

Adler. Batumi. Reflections on the beach

Buteyko flew into Adler in the afternoon. The humid city smelled of grilling kebabs and the asphalt was soft in the heat. He made an immediate bee-line for the main hotel, but no-one had seen Academician Parin. The Doctor was downcast.

He recalled the voice of Parin's daughter saying, "He's on a road trip around the Caucasus." He could be in Baku or anywhere. A search party would be hard pressed to find him and Buteyko only had seven days left until his defence! Buteyko gulped down a mutton pie (a regional speciality) and swallowed a few sips of Georgian wine, then despairingly threw the paper cup in a bin. He couldn't believe that his defence might not take place - such an opportunity might not come again. He walked swiftly to the telegraph office and sent dozens of telegrams to hotels in cities across the south - Tbilisi, Sochi, Yerevan... "I urgently need to speak to Academician Parin. Please send his contact details. Return address: Main Post Office, Adler, Dr Buteyko, *poste restante*. Reply paid."

Several long days passed. School children ran around the shops with their parents, preparing for the start of school. Holidaymakers burned themselves black on the beach. Buteyko waited. He had received only three replies, all negative. He kept returning to the map of the Caucasus. For some reason, he felt an overwhelming urge to go to Batumi.

The Doctor's patience finally ran out and he went back to the airport. It was the same story as in Novosibirsk: no tickets. There were no direct flights to Batumi and, most importantly, Buteyko didn't have any influential acquaintances here. He threw himself on the pilots' mercy.

"Please help me out! My PhD is at stake..."

If anyone else had made such a request, they would have probably been refused. It was high season, and even people with telegrams informing them of funerals couldn't get tickets. But there were few who could resist the Doctor, with his direct and open gaze that inspired trust and the particular intonation of his voice.

"It's urgent, you say." A tall, thin pilot stepped away from his colleagues and looked at the Doctor. "You can travel as one of us, on a mail flight. I'm flying to Sukhumi today, from where you can get a direct flight to Batumi. The only thing is..." He glanced at his watch. "I'm not leaving until later, so we won't get there in time."

"Listen." The Doctor took the pilot by the arm. "I'm begging you, as one human to another, think of something!"

The pilot took off his cap and ran his fingers through his hair.

"I could leave a bit earlier..." he said, fiddling with the insignia on the faded cap.

But even though they left earlier, they still didn't make it on time.

"We're going to be about half an hour late," said the pilot regretfully, trying to squeeze more power out of the tiny engine.

"Give it gas!" urged Buteyko, oblivious to the turbulence.

"If I try to get this bucket of bolts to go any faster, we'll end up kicking the bucket ourselves," replied the pilot, unable to meet Buteyko's impassioned gaze.

"Well, radio to Sukhumi - ask them to wait for an urgent passenger!" yelled Buteyko above the engine.

At Sukhumi Buteyko went straight from one aeroplane to the other. The Doctor was hurrying as if Academician Parin was just leaving Batumi, but in fact, he had no grounds to suppose that the Academician had even been there, or intended going there. By evening, he had already visited the local Academy, the city hospital and several hotels, but there was no sign of Parin.

Buteyko spent the night on a park bench as he didn't want to be cooped up in a stuffy hotel room and eaten by bed bugs. He started going around hotels again at dawn.

"You're looking for Academician Parin?" asked the receptionist in the 'Intourist' hotel. "Yes, he was here. He left five days ago."

"He can't have!" Buteyko leaned against the desk and wiped his eyes, which were red after his night outdoors.

"I checked him out myself." The receptionist began to leaf through the ledger.

"Academician Parin and his wife," said Buteyko, trying to make absolutely certain. "He's not very tall, with very short hair."

"That's right!" said the receptionist. "His wife is a big woman with brown hair."

The Doctor's heart sank. Everything was lost.

"Yes, here it is!" The receptionist, pleased with himself, passed Buteyko the ledger.

"Academician Oparin! O! Do you understand?!" cried the Doctor, seizing the receptionist by the collar.

"M-m-my d-d-dear man," said the receptionist, freeing himself from Buteyko. "Parin, Oparin, what's the difference. He was an academician!"

"Maybe there's no difference to you!" Buteyko exclaimed excitedly. "But it makes a big difference to me! If Oparin has left, that means that Parin could still arrive."

"Arrive where?" The receptionist stared at him, wide-eyed.

"I'll reserve a luxury double room for the Academician and his wife for four nights," Buteyko told the astounded man. "Fill in the form and so on."

The Doctor paid the bill, adding a tip. He described the Academician in detail and told the receptionist where he could be found. He then set off for the port. When Buteyko found out from the ticket cashier that a steam boat was leaving Batumi for Odessa on 1 September, he booked the Academician and his wife a luxury double cabin. With the same certainty as at the hotel, he again described Parin and asked the port administrators to tell him if the Academician arrived.

"I'll be here," said Buteyko, finishing his instructions. "On the restaurant veranda, or lying on the beach."

He had automatically felt that he should book the Academician a ticket on the steam boat as soon as the cashier had mentioned it. This intuition undoubtedly came from telepathy, in which Buteyko believed but which Parin categorically denied. This same sixth sense told Buteyko that he should wait for Parin right there.

The Doctor spent the day zig-zagging between the restaurant veranda and the small beach. He managed to slightly calm his frayed nerves by sipping the local wine. When he lay on a recliner to sun himself a little, his head began to spin pleasantly.

It was 29 August... the sixth day of his journey, with only three remaining until his defence. He closed his eyes and lay back on the salt-weathered boards of the wooden recliner. August was almost over. He didn't yet know what this autumn would bring, but it was at this time two years ago that he became completely estranged from Professor Pomekhin.

On 11 November two years ago, Buteyko had presented his Discovery to the Scientific Council of the Siberian Branch of the Soviet Academy of Sciences. Unlike some other such presentations, it was based on more than the over-excitement of the pioneering scientist. Buteyko had seven years of hard work behind him (starting from October 1952), which he had spent gathering proof. He had cured hundreds of patients from asthma, hypertension and angina, and he had created his combine-complexator, which could give a mathematically accurate picture of a patient's health. Buteyko completed his work on the complexator in Novosibirsk, but he had gathered much of his data in Moscow at the beginning of the 1950s, in his laboratory in Academician Dariev's department. It was at this time that he had developed the most important components of the complexator.

Buteyko propped himself up on his elbows and looked in the direction of the restaurant veranda. No-one was looking for him yet. He rested his head in the crook of his right arm and mentally returned to November 1960.

How curiously his colleagues had looked at the tables that he hung on the board! They paid especial attention to one where the seventh row down was marked 'death' - no-one wants to die.

"Physiological Condition of the Body and Pulmonary Ventilation Criteria according to Dr K Buteyko". Professor Pomekhin read the heading aloud in a monotone before returning to the chairman's seat.

Pulmonary Ventilation Criteria							
Condition of the Body	Type of Breathing	Extent of Dysfunction	Alveolar CO ₂		Control Pause (CP) (sec)	Maximum Pause (MP) (sec)	Pulse per minute
			%	mmHg			
Super Endurance	Superficial	V	7.5	34	180	210	48
		IV	7.4	33	150	190	50
		III	7.3	32	120	170	52
		II	7.1	31	100	150	55
		I	6.8	28	80	120	57
Normal			6.5	46	60	90	68
Disease	Deep	I	6.0	43	50	75	65
		II	5.5	40	40	60	70
		III	5.0	36	30	50	75
		IV	4.5	32	20	40	80
		V	4.0	28	10	20	90
		VI	3.5	24	5	10	100
		VII	DEATH				

"This table allows us to monitor the seven stages in a patient's progression towards death or to the longest possible healthy longevity, in other words," here Buteyko gave an embarrassed smile, "by our current modest standards, to virtual immortality."

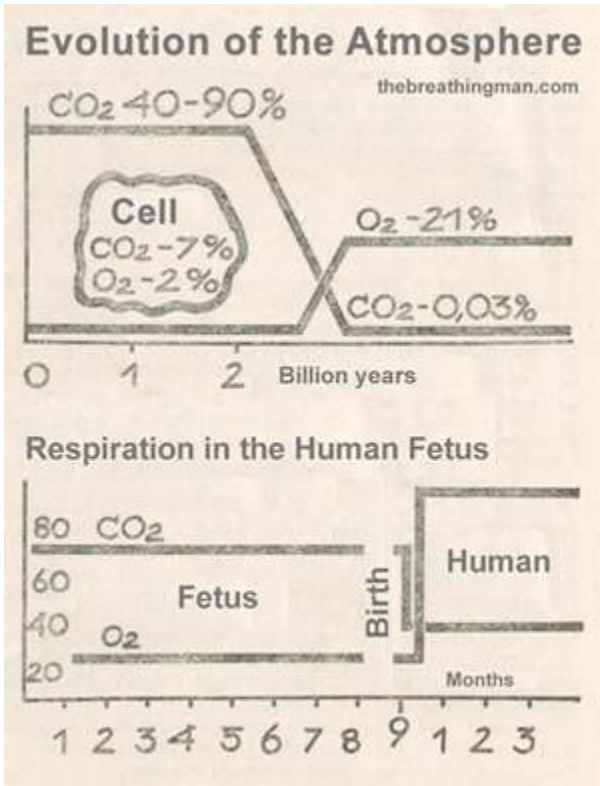
Someone in the audience started sniggering and there was muttering at the back. Shikhman, former Head of the Physiological Laboratory, was sitting there.

"I see that some of you don't believe me when I say that carbon dioxide deficiency is the fundamental cause of many common diseases." Buteyko was trying to disregard Shikhman's rudeness, which was, moreover, obviously supported by the chairman. "Let's take a look at the role of carbon dioxide from a historical biological point of view."

Buteyko could feel himself becoming tense, and his piercing gaze made Shikhman fall silent.

"What was the Earth's atmosphere composed of several billion years ago?" Buteyko indicated a diagram on the board that showed two lines at first running almost in parallel (one above the other) but which then changed places. "It was mainly composed of carbon dioxide and partially oxidised compounds. Oxygen was practically absent."

"This isn't primary school..." muttered Shikhman, seemingly to himself. Professor Pomekhin tapped his water carafe with mock strictness.



"It can be seen that life evolved in an oxygen-free atmosphere!" Buteyko indicated the upper, purple line which showed the percentage of carbon dioxide in the Earth's atmosphere long ago. "It was bonded, that's to say, inert." The Doctor loosened the tie of the Ukrainian smock shirt visible under his coat. "Everything was made up of carbon dioxide, methane, hydrogen sulphide and so on, which are partially oxidised compounds." He drew his pointer sharply down. "Then, when plants and animals appeared, they began to absorb more carbon dioxide than was emitted from volcanoes, geysers and the like."

The audience began to listen more attentively. He told them how huge quantities of carbon dioxide had been absorbed by plants and trapped underground, forming peat, shale, coal

and soil.

"But you can read this in school textbooks," interjected the radiologist, Elvira Samuilovna, who was sitting two rows behind Shikhman.

"That's right!" said Shikhman, turning towards her. They had both apparently forgotten that they were not members of the Scientific Council and so their attendance was highly improper.

"You can indeed read this in textbooks," said Buteyko, dismissing their objections as if brushing away a fly. "So I beg you to remember that the atmosphere was once 70% composed of carbon dioxide, and at earlier periods, 90%, instead of 0.03% as it is today." Buteyko focused his attention on the group of young doctors on the left-hand side of the hall who were listening to him intently.

"If this tiny proportion of carbon dioxide disappears, life on Earth will be finished: plants will not be able to photosynthesise and so humans will have nothing to eat. So that's a more historical perspective on the importance of carbon dioxide than today's usually negative view." He threw this at his audience like a bucket of cold water. Pomekhin grimaced. He knew what Buteyko was getting at.

Someone came out onto the restaurant veranda, and Buteyko jumped off his recliner and hurried to get dressed and return to his table. It was a false alarm, however, and in ten minutes he was once again lying on the warm boards.

This introductory speech to the Scientific Council was only the overture. The full concert began a little later, when he began to analyse the table where the last row was marked 'death'.

"The Earth's atmosphere has changed a great deal, but animal and human cells still need 6.5% carbon dioxide and only 2% oxygen. The blue horizontal line on this graph shows normal alveolar CO₂ in a healthy person who has the necessary 6.5% carbon dioxide. But, be careful," his pointer indicated the last row, "only people who can hold their breath for one minute with no effort after normal exhalation have this level of carbon dioxide. To put it in other words, their control pause is 60 seconds. But do many of you have such a long control pause?"

The doctors on the left-hand side began to hold their noses, but none of them could even hold their breath after exhaling for even 20 seconds.

"I can manage 25," spluttered a red-faced Shikhman.

"Your control pause is not 25, but maybe ten seconds," the Doctor rebuked him. "Look how you're gulping air now. Twenty-five is probably your maximum pause, or even beyond your maximum." He tapped his pointer on the middle column. "Your control pause is the time you can easily hold your breath for after exhaling. You shouldn't need to breathe more deeply after it than before. So, can everyone see how simple this test is?"

Buteyko scanned the half-full hall. "Even the youngest medical student couldn't manage a control pause of 15 seconds, and for the rest of you it was probably around seven to nine seconds. And Associate Professor Nikiforov could only manage four seconds," he said, noting the Associate Professor's raised arm. "I don't want to frighten you, Associate Professor, but that's in the sixth and penultimate step of the ladder towards death." Buteyko indicated the second-bottom row. "Less than 3.5% carbon dioxide in the body means death." The pointer moved down to the last row.

"Who has proved that?" exclaimed Nikiforov in agitation. His puffy face had a permanently unhealthy cast. A buzz broke out in the hall as everyone began to talk at once.

"You could be a little more careful when drawing such conclusions," said Pomekhin, in a seemingly conciliatory fashion but with an unambiguous warning in his voice. He was enjoying the commotion.

"The table of pulmonary ventilation criteria is based on data from the complexator!" Buteyko stated firmly. His pale blue eyes glinted icily, in the way that the Professor knew so well. "Of course, there has been some interpolation and rounding, but the table is reasonably accurate. And it shows," he raised his voice, "that practically no-one here is healthy with normal breathing. Of course, that's to be expected. We've been told for years on the radio and television and in PE lessons to breathe deeply. But deep breathing removes the last traces of

CO₂ from the body, so how can you have the required 6.5% carbon dioxide? Most of you here will only have 4 or 5%, maximum."

Associate Professor Nikiforov brightened up - he wasn't the only one at risk.

"Four percent, six percent, this is all quite abstract to us non-specialists," said the Scientific Council Secretary. "The seventh row of that table is marked death. But the row above it is 3.5% CO₂, which is, according to you, like being at death's door. But people live for a long time with this level of carbon dioxide. Why should we all make an effort to reach a control pause of 60 seconds? And as for intervening in the functioning of the respiratory centre... it's like trying to control your body temperature or blood pressure." The Secretary caught Pomekhin's approving gaze and sat down again.

Buteyko leaned on his pointer and started rocking from his heels to the balls of his feet.

"Of course, there are people alive with a control pause of five seconds, which corresponds to carbon dioxide content of 3.5% in the body, or more exactly, in the alveoli." He stopped rocking. "But they don't live for very long. And most importantly, they're usually in poor health." He indicated the second-bottom row of the table. "Something's always wrong with them. And believe me, a sick person will blame anything for their illness, but they never suspect that the fundamental cause is deep breathing."

The Scientific Council Secretary industriously noted something in the minutes.

"Ask any hypertensive patient why he is ill." Buteyko removed his glasses and put them in his pocket. "He'll tell you that his heart is weak or that he's working too hard." He turned to the members of the Scientific Council, who were exchanging glances. "However, the mechanism is quite simple. What causes hypertension? Changes in the blood vessels. They become narrower, and the pressure in them correspondingly rises. But what makes the blood vessels constrict?" His eyes were alight with a blue flame. "Nature didn't expect such a sharp change in the Earth's atmosphere. The same pathways are used to intake air and expel waste gases. When mammals first appeared on Earth, this wasn't a problem. They breathed in mostly carbon dioxide and breathed out whatever their body didn't use. However, now every deep breath contains 21% oxygen and only 0.03% carbon dioxide but our cells need 6.5 to 7% carbon dioxide! A deep breath in is followed by a deep breath out. This exhalation removes excess, unused oxygen," Buteyko slapped his thigh, "but it also washes out the CO₂ which our bodies need so badly."

The Scientific Council Secretary stopped writing and pointedly laid the thin cardboard file aside.

"The body begins to try to stop carbon dioxide leaving the body - it constricts the smooth muscle of the vessels and airways. When the airways spasm, it causes an asthma attack. When the blood vessels spasm, it causes hypertension. When we

breathe deeply, we enter a vicious circle. The deeper we breathe, the more intensively the lungs are ventilated so more carbon dioxide is eliminated from the body! As a result, the blood vessels spasm, we feel as if we can't get enough air and so we breathe still more deeply! In addition, there is the Bohr effect." Dr Buteyko paused for a moment. "When we don't have enough CO₂ in our bodies, oxygen binds more tightly to haemoglobin in the blood and as a result, less oxygen is released into the tissues, causing oxygen starvation..."

Buteyko said a good deal more to the Scientific Council. He explained, for example, that intestinal colic (and therefore ulcers and gastritis) was caused by spasms of the smooth muscle of the blood vessels and of the intestines themselves, brought on by deep breathing.

"Let us suppose that there is some truth in your theories," interrupted Pomekhin, frowning deeply. "What is the solution? Our colleague here was right," he indicated the Scientific Council Secretary, "we can't consciously regulate, for example, our body temperature. What do you propose we do about our breathing?"

"We can't regulate our temperature, but we can control our breath with training." The Doctor gripped his pointer more tightly. "I have developed a method for this, the volitional elimination of deep breathing, VEDB."

He described how many patients had mastered his Method and from what illnesses they had been suffering. He presented diagrams showing the results achieved. In the end, Pomekhin was forced to announce that Buteyko's presentation had been highly interesting and that his research must continue! However, the Professor soon regretted this commitment. The Professor and his cronies quickly realised that if the VEDB and the diseases of deep breathing were officially recognised, they would face a grim choice: either they could stop cutting up asthma and heart patients left, right and centre and adopt Buteyko's Method, or they would find themselves in the dock, especially if their patients died. The law on medical malpractice was quite clear: if a patient's death following a medical intervention could have been prevented by using another therapy recognised at the time, the doctor would be held criminally responsible. As Pomekhin and his colleagues had no intention of giving up surgery nor swapping their comfortable lifestyles for a prison cell, there was only one option: to isolate the Method and its inventor. They set to work immediately.

CHAPTER 10

Academician Parin gets a fright

Parin did not appear in Batumi on either Wednesday or Thursday. The Doctor took long swims in the Black Sea and baked himself brown on the beach. However, getting the Academician's review of his dissertation increasingly seemed an impossible dream. It looked as if he would have to leave the south with empty hands, disappointing as that might be.

On Friday Buteyko bought a ticket for the night train to Adler on the Black Sea coast, otherwise he would not make it back to Novosibirsk by 2 September. If he didn't appear, it wasn't just his own PhD defence that was at stake - he was the referee for one of his postgraduate students who was also defending his thesis that day. He could imagine how the student must be worrying about his long and unexpected absence. Buteyko decided to go by train as there were no direct flights to Adler and he wouldn't make it if he transferred at Tbilisi airport.

Friday 31 August was a boiling hot day. Buteyko exchanged the restaurant veranda for the sea and a recliner a few times, but he couldn't cool down. The constant blare of a transistor radio was driving him mad.

"According to the TASS news agency, the American imperialists have continued their provocation against the Republic of Cuba. An American submarine was yesterday observed off the Cuban coast, and American jets also entered Cuban air space on two occasions..."

Buteyko dressed and headed for the veranda. It was getting late, and he needed to pay the bill. As he counted out the money from his wallet, he remembered how expensive it had been to book the luxury room in the hotel and the luxury double cabin on the cruise leaving Batumi the next day. He smiled bitterly. *That* had been money down the drain.

Buteyko was counting out a tip when heels came clicking across the wooden veranda towards his table. It was an ample-bosomed Georgian woman, one of the port administrators whom he'd asked to alert him if Parin arrived.

"Parin is on the jetty!" she panted, out of breath.

"I can't believe it!" Buteyko almost knocked over the table. "Where is he?!"

"He's wandering around up there," the woman said, gesturing towards the ticket kiosk.

"What do you mean, wandering around?!" Buteyko thrust some money into the waiter's hand, not pausing to count it. "Why didn't you stop him?"

"How could I stop him?" the port administrator pursed her full, red lips. "He's an academician!"

Buteyko seized the woman by the arm and rushed off the veranda. They raced along the jetty, but Parin was nowhere to be seen.

"Has Academician Parin bought a ticket from you?" he asked, thrusting his head into the ticket kiosk.

"No, he hasn't," replied the cashier. It didn't enter her head that the man who had enquired about places on the cruise to Odessa just a few moments before was Academician Parin. Buteyko's previous description of Parin apparently hadn't sunk in, and of course, the man hadn't given his name.

The sun was setting as Buteyko hurried along the jetty with the port administrator, and it was dark as he went round the nearest hotels by taxi. It was ten o'clock by the time he reached the Intourist hotel, and he only had 40 minutes before the Adler train left. From the taxi, Buteyko noticed a man with close-cropped hair going through the hotel's illuminated glass doors, holding a visibly tired woman by the arm. It was Academician Parin and his wife! Buteyko's amazement hardly left him the strength to open the taxi door. Overcoming his momentary weakness, he curtly instructed the driver to wait and left him a deposit.

"Good evening Academician Parin, good evening Mrs Parin!" he called, hurrying towards the couple, who were sitting on the lobby sofa with dejected air. The 'no vacancies' sign above the reception desk explained the reason for their dismay.

"Dr Buteyko?! What on earth are you doing here?" exclaimed Mrs Parin smiling warmly and making room for the Doctor on the couch. Parin raised his thick eyebrows in astonishment.

"Mrs Parin, my PhD defence is the day after tomorrow and it can't take place without the Academician's review of my dissertation," said Buteyko, still standing.

"I can't hear of it!" Despite her exhaustion, the Academician's wife rose to her feet. "I swore my husband wouldn't be troubled by any business at all while we were away."

Buteyko's heart sank when he saw the steely determination in her normally friendly face as she gripped her husband by the arm and prevented him interrupting. He too was visibly tired from travelling.

"It's your decision, of course," Buteyko said after some minutes. "But if the Academician could somehow manage to write a review for me in ten minutes, then..." the tremor in his voice betrayed his emotion, "my defence could still take place. I've brought a form from the Institute." He pulled out the slightly crumpled review form. But we can't delay - I'll be late for my train." The Doctor glanced at the vestibule clock. "And then that will be it: *finita la comedia*."

"We didn't plan to come here," Mrs Parin said, her tone slightly softening. But she was still gripping the arm of her husband, who clearly wanted to say something. "We actually drove past Batumi." She tucked back the wisps of hair that had

escaped from her headscarf. "But then our car broke down at 2 pm and we had to come back to Batumi to get it repaired. We're exhausted and filthy!" She brushed invisible dirt from her skirt. "And there are no free rooms in the whole of Batumi."

"We wanted at least to take a cruise to Odessa tomorrow, but those tickets have all sold out too," said Parin, finally managing to get a word in edgewise.

"What do you mean, there are no rooms?!" Buteyko suddenly realised how he could win Mrs Parin over. "There's a luxury room booked for you upstairs. And as for the cruise..." he fished in his pockets, "here's a reservation for a double luxury cabin. You leave at 11 am sharp tomorrow."

Parin stared uncomprehendingly at the papers, and his wife's expression displayed disbelief mixed with fear.

"Well, Nina, go and ask them about the room." Parin gestured towards the receptionist. Buteyko couldn't see the man he had dealt with previously - evidently he wasn't on duty.

"What's the point?" asked Mrs Parin in annoyance. "I've already asked, and they've got that sign up."

"But you didn't give your name," Buteyko gently corrected her. Mrs Parin abruptly strode to the desk.

"Excuse me, do you have a reservation for Academician Parin?" she enquired in a deliberately loud voice.

"Ah, we've been expecting you!" said the receptionist with a welcoming smile. "Your identity card, please. And here are your keys...."

To the Doctor's amazement, Mrs Parin seemed more terrified than delighted when she returned to them with the keys.

"When did you book the room?" The Academician was beginning to be infected by his wife's agitation.

"The day before yesterday," said the Doctor without thinking.

"But how did you know that our car would break down today?!"

"What exactly did happen to the engine, Vasily?" his wife enquired in a strained voice, her terrified gaze not leaving the Doctor.

It was at this moment that Buteyko realised they were afraid of him. They didn't believe in telepathy and so could only presume they were under surveillance. Parin was head physiologist on the space programme and would have been a prize for any intelligence agency. After all, they weren't far from the Turkish

border, and Parin's previous imprisonment under Stalin would give the couple good reason to fear being spied on. The fear on Mrs Parin's face was understandable.

"Please don't be upset," said Buteyko, as reassuringly as possible. "I didn't arrange for your car to break down. But if I don't get in a taxi with a review signed by Academician Parin in seven minutes, then my dissertation defence will 'break down' too. My sixth sense told me to wait for you here, I can't say more than that."

"Give me the form." The Academician quickly found a pen. "I remember your work and it's no problem..." He began to hurriedly complete the form. "But why did Professor Pomekhin tell me you had decided to postpone your defence?" He stopped writing for a moment.

Buteyko's lips tightened. "He was probably following his sixth sense too..." Red hot anger filled the Doctor and he could barely get the words out. "But it let him down..."

CHAPTER 11

A referee for his dissertation

At that moment neither Academician Parin nor his wife could believe that Buteyko was telepathic. More than that, the Academician would continue to lose sleep over this episode for years to come.

“Just, tell me, explain to me please, how Buteyko could have fathomed all that?! Let’s take a look at the map of the Caucasus together...” With this, he would buttonhole one of Dr Buteyko’s colleagues who had come to see him on other business.

He would pore over the map long and hard, sketching all the routes he might have taken on that trip, then angrily throw down his pencil stub, stumped for an explanation. The Academician immediately wound up his lecture series on why telepathy did not exist and never returned to the subject. But despite the peculiar circumstances of their meeting in Batumi, the Academician jotted down a terrific review for Buteyko there and then in the hotel foyer, and so enabled the future PhD to turn world medicine virtually on its ears.

When Dr Buteyko got back to his waiting taxi, the Adler train had almost finished boarding on the station platform and so it was with the greatest of difficulty that he managed to jump onto the last coach of the moving train. Buteyko asked the conductor and all the other passengers to wake him up before they reached Adler: it was a Moscow train, but if he stayed on it he would definitely miss his defence. That night the Doctor slept soundly for the first time in a week.

Adler airport on 1 September 1962 resembled a human ant hill. Seats to Moscow were at a premium, even for generals and admirals - and they had their own booking office. Dr Buteyko applied all his ingenuity to the task in hand, but the situation remained critical. After two hours of utterly fruitless effort to lay hands on a ticket, he lowered himself into an arm chair in the waiting room, completely exhausted.

I need to find another airport nearby that’s less busy, he thought, in a flash of sheer desperation. Krasnodar was nearest. He raced for the post office and phoned the ticket office at Krasnodar airport.

... “Do you have any tickets for Moscow?” he almost yelled down the phone, although the line was very clear.

“You what? What’s up?” The distant voice parried each of his questions with another.

“Sweetheart. Listen. My dissertation hangs on this.” Sensing the woman was in two minds, Dr Buteyko began shouting even louder.

“Listen darling. Your accent sounds local. Where are you from?” His invisible interlocutor suddenly became more friendly.

"Priluki outside Kiev," the Doctor told her, aware of a glimmer of hope.

"One of my own, my old mate and mucker! What's up?" The cashier's tone was warm.

"My dissertation's shot to pieces if I don't get a ticket to Moscow immediately," the Doctor explained, now calmer.

"Well, I have one ticket here. It's a return someone just brought in." She sounded more formal again. "Only the flight leaves in three hours. Will you make it?"

"Keep it for me and I'll try!" The receiver was suddenly heavy in his hand, and Dr Buteyko hurled it back down.

There were no regular flights from Adler to Krasnodar, and so naturally no tickets. For the second time on this trip Dr Buteyko appealed to his 'brother-pilots' for help, and for the second time a little hedgehopper agreed to take the tireless traveller, only this time in the direction of Krasnodar, further north.

The queue for tickets at Krasnodar airport stretched nearly to Moscow.

"Where the hell have you been!" the cashier shrieked as Buteyko finally made it to the narrow window, sweating and dishevelled. "I've been fighting people off your ticket for nearly three hours. The flight goes in half an hour, and you're swanning around. Get to check-in fast!"

The Doctor hardly had time to thank her before racing to check-in. He drew breath only when he was in the comfort of his tilt-back airline seat, vibrating slightly with the take-off.

Soon afterwards, when the stewardess announced they would be making an unscheduled landing in nearby Rostov-on-Don because of bad weather, he nearly had to reach for the sick bag. He really did feel wretched.

Afterwards, Buteyko had only a vague recollection of sitting out the storm and finally reaching Moscow. Brain-dead with pushing through the crowd that was glued to Moscow airport's ticket desk, he scarcely remembered how someone had finally taken pity on him and thrust a ticket for Siberia into his hand that had miraculously come free.

But the moment the Doctor stepped down from the plane in Novosibirsk, he had total recall. It was six o'clock in the morning and his oral examination would start at 10 am...

CHAPTER 12

The dissertation defence

Professor Pomekhin had already taken his place in the chairman's seat behind the table that had been placed on the law dais for members of the Scientific Council, but there was still no sign of Buteyko in the hall.

Danny the Dreamer's had no luck with his thesis, Pomekhin silently gloated and wiped a rather puffy cheek with his hand. In recent times his swollen face had started to take on a rather womanly look. The last latecomers were taking their seats in the hall, and his secretary had placed a cut glass carafe of water before him.

The little blighter obviously went out and drowned his sorrows, the Professor, thought, putting his own interpretation on Buteyko's absence. And though he knew perfectly well that drink was not one of Buteyko's weaknesses, it suited him perfectly well to think so. Otherwise it was very hard to explain why Buteyko had suddenly asked Pomekhin's deputy for urgent administrative leave and his wife's evasive answers on this score. And Buteyko's wife Marina was definitely Pomekhin's confidant. Many of Danny the Dreamer's secret preoccupations had been relayed to the Professor, thanks to her. Professor Pomekhin had told Marina Buteyko he considered her husband to be a great diagnostician, a man whose brilliant career was assured. (And oh, how his wife's eyes had glowed at those words!) Brilliant, but for the tragic onset of a psychiatric disorder, manifest in the Doctor's obsession with carbon dioxide.

And here Professor Pomekhin had scored a bull's eye. Evidently Buteyko had managed to antagonise his wife with his famous Method too. She didn't try to argue but accepted the Professor's hypothesis as gospel. And after a revelation like that, how could Marina Buteyko not help the Professor in his battle for her husband's sanity and professional reputation? She told him everything. What Buteyko ate, what he drank, what he said, what she thought he was thinking. She considered it her duty as a wife.

Then suddenly, Konstantin upped and offed for a week on business, leaving a pencil-written note in the kitchen. Pomekhin surveyed the assembly hall with a steady gaze, and poured himself some water from the carafe. The hall was now nearly two-thirds full. No, he was sure Mrs Buteyko had not rumbled him, but there are some situations when it is just embarrassing to tell the truth. The CO₂ champion had simply gone on a blinder with despair. That was all. What business could he have outside Novosibirsk? Where could he go? Pomekhin rang everyone, and everyone gave the same answer: Academician Parin was out of Moscow at the moment... Well never mind. Let him go on a bender then dry out for a while. Perhaps he would learn to live with things.

Professor Pomekhin had just risen to his feet to open the meeting when the hall door suddenly edged open. Pomekhin clumsily sloshed the water at the bottom of his glass. Making a beeline for him down the aisle between the rows was Buteyko - sunburned, immaculately clad and clean-shaven. Judging by his fresh,

focused features no-one could infer - even with the worst will in the world - that he had just torn himself away from a date with the Drambuie...

With an inward shudder, Professor Pomekhin accepted the familiar form that Danny the Dreamer handed him: if the ceiling had suddenly fallen in it would probably have shaken him less. He recognised Academician Parin's dense and florid handwriting. Underestimating Danny's determination had cost the Professor dear. If he had realised Buteyko could rustle up a reference from Academician Parin for his oral, Pomekhin might still have been able to do something about it. He was a past master at undercover intrigue, and it would have been nothing for him to have a word with someone in good time and arrange for the requisite number of black balls to torpedo Buteyko's dissertation. Then no reference from an academician could have saved him, still less from an academician who had been discredited and forced through fire and water by Stalin.

He only had time to exchange a wink with the secretary to the scientific council, who understood him intuitively. This secured two black balls for the redoubtable Danny, which they dropped into the hat with their own hands. But it was too late for this to swing it now, alas; on the contrary, they gave an air of greater objectivity to Buteyko's successful result. And on 2 September 1962, a day on which the Professor's skim through the morning newspaper revealed the Soviet people revelling in a bumper harvest in Volgograd (200 million tons all told), Danny the Dreamer became a PhD. The newspapers claimed the whole country was celebrating an exceptional harvest, but later that night in the privacy of his own study, Professor Pomekhin wept bitter tears at what he himself had reaped.

The prospects were not good for the Professor's Nobel Prize. His assumption that the surgical removal of a lung from chronic asthmatics would win him lasting glory was so far wide of the mark. The trials had carried dozens of dogs off to their grave and the operation didn't necessarily succeed on any human beings either. Unlike Dr Buteyko, Professor Pomekhin had managed to get Ministry of Health endorsement quite quickly (as soon as the first hardy dogs survived). After all, the Ministry of Health's right-hand man was a surgeon too and receptive to his idea. Unfortunately, endorsement by this highly placed official did not guarantee patients a healthy life with their one remaining lung. Patients were terrified of the operating table, and they were equally terrified at the onset of their next suffocating attack after the operation.

Still there were, of course, some positive things. On the whole the minuses far outweighed these minor fleeting pluses, but when you have absolutely no alternative, you can be glad of the most miserable fleeting plus. Pomekhin pulled the study door open a crack, made sure his wife was asleep, then shut it tight again.

Pomekhin got a bottle of cognac from his bar on the wall and thinly sliced a ripe yellow lemon with a wonderfully aromatic smell. He savoured the flavour of the spirit from his fine crystal wineglass. He was treating asthmatics on the third floor by cutting out their lungs, while on the second floor, Dr Buteyko was getting far more substantial results without inflicting a scratch.

The Institute had split into two warring camps, and there was panic among the patients. The third floor was rapidly gaining the reputation of being some sort of bureaucratic Gestapo. On his rounds he had actually heard one of the nurses persuading an elderly in-patient to think again as he placed one foot on the stairs to Pomekhin's rooms. She didn't realise he could hear her.

"Lovey, you shouldn't go up to the third floor," the nurse said, gripping the wide lapels of the patient's striped pyjamas. "Go to Buteyko. He'll make you well without surgery."

The terror in her voice made even the Professor feel strange. Well, it was quite clear that many patients preferred not to go up to the next landing. Pomekhin chewed on a juicy lemon slice, topped up his cognac, then with his glass on a small saucer moved from behind his massive desk to a neat wooden camp-bed covered in a brown woollen throw by the window overlooking the courtyard.

What had he not tried in his attempts to drive patients away from Danny the Dreamer? He had blocked up his back door with metal sheeting and instructed the cloakroom attendants not to hang up his patients' coats. On icy Siberian nights, their sheepskin jackets and expensive winter coats lay in a heap in the vestibule on yellow and red tiles trampled by a horde of visitors' feet.

At the same time, he had started rumours among the patients that they were being treated by a schizo - a real loony in a white coat, whom the Institute had forbidden to practise his extremely dubious and scientifically suspect Method, someone who would not listen to anyone or anything. But it was all no use. They still went to him! They just flocked to him, people who had been tormented by years of suffering.

For all his personal distaste for Danny the Dreamer, the Professor recognised the attraction his Method must have for it to generate such a consistent, endless, unstoppable stream of people. He recognised it, and the recognition infuriated him more.

Well, so what? Pomekhin thought as he drained his second glass. A PhD was not a bullet proof vest, and wouldn't save Buteyko. He would need more than that. You could always find a reason to get rid of a troublemaker, and that was the way things were going, it seemed. He put the glass down on the saucer, placed both on the floor, then rolled on to his right side. He'll be stubborn of course, but I'll gently 'encourage' him to leave, he thought on the point of nodding off. People like him don't resign of their own accord. Come the hour, we'll ditch the little dreamer.

CHAPTER 13

A celebratory lunch. The Method cures – and the Method punishes

The lab staff did their boss proud for getting his PhD. He was a great favourite and they respected him highly. During the lunch break, the women organised a magnificent spread of cake, cherry jam and fresh fruits, and everyone drank a teacup of sparkling wine. Kolya, a lab technician, made a heartfelt speech. Two of the women doctors even wiped away a tear as they listened to him. Then someone asked in a completely different key:

“But why are they all so self-centred?”

“Who?”

Everyone turned to look at Dima, the extra-mural student from the biology faculty who had made the comment.

“The patients we're teaching to use the Method, who else?” Dima narrowed his slanting eyes and smoothed his blond beard.

“Now, now! How can you say that?” Svetlana Bubentsova tried to cut him short. She was a born conciliator who always tried to skirt controversy and keep on good terms with everyone over everything. Her face was flaming red from the sparkling wine. “These are our patients. How can you say they're selfish?”

“Yes. When they come to us they are ill.” Dima suddenly laughed out loud. “When they come to us they're sometimes at death's door, but they leave us a month later with a new lease of life!”

“Of course, yes of course.” Dr Bubentsova nodded, unsure where this was leading. “Dr Buteyko's Method really can bring people back from the grave.” She turned to look at Buteyko and her eyes immediately brimmed with tears. “My dissertation will be about the impact of the Method on people with high blood pressure, and I am going to give some case studies.”

She shyly took a piece of bread and smoked sausage with her poorly manicured hand.

“So, yes, the Method helps the patients, but they do nothing to help us!” The extra-mural student drove his point home. “Anyone who thinks otherwise must be blind. The patients have had their doorway blocked up and they're not allowed to hang up their coats. Dr Buteyko's team are talked down to. And what do the patients do?” Dima noticed Dr Bubentsova had still not taken a bite of her sandwich. “Nothing! Just one or two little outbursts of ‘if only I could jump this queue to Buteyko’ but otherwise nothing at all.”

Everyone gave him their undivided attention. Some started to disagree with him. Dr Buteyko, however, recalled one of his very earliest patients in Novosibirsk, at the time when he and his staff had still been assembling the combine-

complexator but already starting some research. A well-known documentary film director from Novosibirsk had heard about Dr Buteyko's miraculous Method by word of mouth and begged him to come and treat his colleague who was in hospital and awaiting final sentencing by Professor Pomekhin. Khodakevich had survived two heart attacks by the age of 49 and even Pomekhin's reputation as an omnipotent surgeon - carefully inflated by his acolytes - did not blind him to reality. Death seemed inevitable.

Up in the ward Dr Buteyko examined the patient. His skin looked slightly yellow from many days of lying in his sick bed. The Doctor was in an awkward position. The patient was in an extremely bad state, heaving for breath and looking at him with sunken sad eyes, exhausted. The Doctor could not give a 100% guarantee of a successful outcome even with the help of the Method, but failure would have been a catastrophe twice over. For one thing, Professor Pomekhin would kick up an unholy fuss about Buteyko treating his patient without permission. For another, the Method itself would be discredited.

But Khodakevich was more dead than alive and wordlessly pleading with him so visibly that the Doctor couldn't turn him down.

"Raise yourself a little again please," Buteyko suggested quietly. Moaning weakly, Khodakevich lowered trembling legs to the floor.

"I have no right to treat you since you are Professor Pomekhin's patient," the Doctor said, enunciating every word very clearly. Khodakevich wearily slumped back on the wall. "But I could try to help you unofficially, so to speak." Buteyko stopped for a second. "Like now, late in the evening, or sometimes at night."

"Try," Khodakevich whispered. "I beg of you! I'm often on my own in the ward, or we can find a quiet corner in the corridor. I want to live just a bit longer!"

"Well, what the heck." Dr Buteyko gave a wave of his hand. "Let's start. First question - why do you think your heart hurts?"

"It's my work on documentary films." Khodakevich responded immediately. "Journalists have the same thing: constant stress and fights. Forty-eight is often as old as we get."

"You are ill because you breathe too deeply!" the Doctor interrupted him, categorically. "That is the key factor. Once you manage to normalise your breathing you will live."

A deep-breathing test gave a very graphic result.

"Do you understand now where deep breathing is leading you, and how you must reduce it?" Dr Buteyko bent closer to Khodakevich, who was having difficulty coming round.

"Yes, totally, but how do I do that?" Khodakevich had gone blue and his voice was croaking. "If it works, I will make a film about your technique, so that everyone finds out about it!"

"It is bound to work." Dr Buteyko could hear the steps of the duty sister in the corridor. "It is simple to do. But it does require great will power. The most important thing is to sit comfortably." The Doctor moved the only chair closer to the bed. "Sit down here like this. Un-hunch yourself. Your shoulders and your back should be straight, and your legs should be down and slightly back. Place your hands in a relaxed fashion on your knees, and be careful not to cross them."

Why not?" Khodakevich wanted to know.

"So that two biofields do not intersect." Buteyko explained cryptically. "Your head! Hold your head straighter, so that it forms a straight line with the spine." He placed his palm on the back of the man's head. "And now," Dr Buteyko sat on the bed in front of Khodakevich, "pull in your stomach. This will help you assume the correct posture. Then let it go and relax as much as you can. Not like that!" Dr Buteyko said sharply. "Don't slump again with your shoulders rounded. Relax completely but with straight posture."

"How can I relax like that?" Khodakevich enquired, tensing up.

"It is relaxation through tension," Buteyko hastened to reassure him. "When you pulled in your stomach, you tensed up. When you let it go, you relaxed. And in this posture - relaxed after a normal exhalation of breath - squeeze the tip of your nose with your fingers."

When he finally got Khodakevich seated properly Dr Buteyko added, "While you do this, you should roll your eyes up as far as they will go, and hold your head straight. The moment you feel you want to breathe in, let go of your nose. And I shall make a note of the time."

The film director's control pause was absolutely minimal - some three seconds.

"What does that mean?" Khodakevich wanted to know. He had avidly listened to the Doctor evenly counting the seconds.

"It means you are breathing like a steam engine!" the Doctor told him point blank. "And you need to breathe like a human being, without gulping surplus gallons of air. They are bad for you."

"And that all your technique is about - holding your nose?" Khodakevich twisted his thin moist lips into a faint smile.

"Only airheads and cretins think so." Dr Buteyko put him in his place firmly. "The Method involves a gradual reduction in the depth of the breathing. Grad-u-al."

Dr Buteyko raised his left palm and spread his fingers. "Sit in this posture every other hour and practice for 10-15 minutes. If you practise enough, you'll be able to lengthen your control pause."

"OK, so I'm sitting. Now what?" Khodakevich gazed at the Doctor suspiciously.

"Now listen to your own breathing." Dr Buteyko suggested. "Can you hear how you snort? But you should be breathing softly-softly." The Doctor got more comfortable on the bed opposite the patient. "We breathe in just a little. A tiny bit. Our exhalation is natural. We breathe so that neither our chest nor our stomach heaves. We breathe just a little. If you are using the Method, you will soon feel a pleasant warm sensation curling through your body. And do everything in a state of maximum relaxation. When we pull in our stomach, we tense up. When we let it go, we relax. Sit like that."

"I am nice and warm," the patient responded elatedly, having scrupulously carried out all the Doctor's instructions. "And my heart suddenly feels good, as if it had been massaged with balsam."

"Well there you go." Buteyko glanced at his watch with concern, and rose from the bed. "Try it. But remember that holding your breath is not the cure! It is the Method that heals. And measuring the length of a patient's pause is a way of keeping a record of their condition. At the moment your pause is three seconds, which is extremely bad!" The Doctor frowned despite himself. "You'll feel much better when it is 30 seconds. And when it is 60 seconds, you can walk out of here virtually healthy!"

The Doctor visited the film director more than one, trying to remain out of sight. Khodakevich proved an adept student and produced spectacular results by only their fourth meeting. He even tried giving a jump for joy although previously he had been afraid of any sudden movements. It was his driving survival instinct that helped him master the Method so rapidly.

But, alas, this strength came from the patient's enormous ego. Like all major egotists, he clung to his own life with gritted teeth. This was fine for mastering the Method, and he burst from Professor Pomekhin's grip without any surgery. But when Buteyko reminded him of the documentary film he had promised to make, Khodakevich instantly fell silent.

"I'll need to sound out the studio, and see what's what..." he said vaguely, his eyes wandering to the side.

Dr Buteyko was not after personal glory, but he did want an honest documentary that could help thousands of dying people learn about the Method. So overcoming his own inner reluctance, he phoned Khodakevich at home shortly after he left hospital without waiting for him to get in touch first.

Khodakevich was feeling great. With huge satisfaction, he extolled the Doctor's technique for controlling his heart problems, but as soon as the conversation turned to the documentary film again, his voice audibly chilled.

"You know," he drawled disagreeably down the phone, "there are big problems. Very big problems. The editor is afraid of censorship because after all the technique has not been very widely trialled. A documentary film requires major financial investment, and who will back it if there might be problems with the release?"

"Fine!" Dr Buteyko cut him off. "If the money is so complicated, people who support my Method will stump up the funds to make a documentary that represents fairly what it does. Everyone who has been saved from death's door will each give a rouble, and if there is an official ban on releasing it, they will show the film on projectors at home. If we do that, would you film it? You personally?"

Buteyko knew how to pin down the wriggliest worm. Khodakevich was silent for so long that Buteyko wondered if he had fallen asleep.

"...think about it," finally reached him down the receiver, in a mutter.

"What did you say?"

"I need to think it through properly and weigh it up," Khodakevich repeated more intelligibly, for some reason starting to cough. "Money is money, it makes you responsible... I'll give you a ring. I'll definitely get back to you on this."

He never rang back and never came to see the Doctor again. By a roundabout route Dr Buteyko learned that his former patient was fit and well and living it up with a 20-year-old woman instead of his 50-year-old wife.

Yes, the student's sudden question at the office party was spot on. Whatever else they lacked, there was no shortage of selfishness among the patients who had been cured by the Method. The worst of it was that this egotism prevented them telling anyone else how to get well. It damaged the people closest to them most, as they also suffered from a range of medical conditions and didn't know how to get rid of them.

Strange to say, this 'I'm alright, Jack' attitude also damaged those who were concealing the truth. Patients who received significant relief from the Method but told no-one about it eventually began to forget how to use the Method themselves. They would over-breathe, and their previous complaints would return. The brilliant discovery took its revenge on egotists; by its very nature it seemed to reward altruism. And it was only altruists who achieved consistently amazing results through their use of the Method.

Khodakevich was no exception. His own health improved radically, but his laborious efforts to conceal the 'secret of his cure' left their trace. Attacks of

hyperventilation and heart pains revisited him periodically. His nightmares also returned from time to time. He managed to overcome these incapacitating symptoms through an effort of will, but he could never get rid of them completely. To do that Khodakevich would have needed to become an altruist, but this was beyond him.

The lunch hour came to an end. Congratulating their boss for one last time, the women started clearing the table. The newly-fledged PhD rose to his feet and went to the cubbyhole that served as his office. Numerous visitors had already popped their heads round the laboratory door. It was time to get back to work.

CHAPTER 14

The division of the Laboratory

For exactly one year after Buteyko's PhD oral defence, Professor Pomekhin endured having the consulting room next to his. As it turned out, he did not have to put up with it for longer than that. A schemer by nature, he dragged the Institute down so far that it was on the verge on total collapse. Nasty rumours, conspiracy and intrigue gripped everyone under his management. By now they were not just at odds with Buteyko: they were at daggers drawn amongst themselves.

The warring factions mainly fell into three camps: the surgeons, with Professor Pomekhin at their head; the theoreticians, headed by Professor Milman; and the physiologists. All three groups slugged it out for one and the same thing - the right to total mastery of the Institute for Experimental Medicine - and they aimed straight for the head. A whole stream of backbiting letters did the rounds of all the higher government bodies, including the Central Committee of the Soviet Communist Party.

The theoreticians assured the government that Pomekhin was blinded by blood and surgery (at which he undoubtedly outshone most other practitioners); that he was indiscriminating and had forgotten about real science. He was chasing after transitory, short-term results right there on the operating table in front of him and paid no heed to basic medical research.

The surgeons informed on the theoreticians, making out they had their heads in the clouds and were throwing public money to the winds with their endless delving in dusty archives that brought not an ounce of good to any one of their patients.

The physiologists slagged off them both. One after another state commission visited the Institute; it seemed the offended parties would never stop screaming, squabbling and scandalising, and since the Institute was part of the Siberian Branch of the Soviet Academy of Sciences, the responsibility for keeping it in order fell naturally on its President, first and foremost.

Academician Lavrentiev was no fool by any means. On his fairly frequent visits to the Institute with other Presidium members, he registered quite quickly that only one laboratory took no part in the internecine fighting that was tearing the scientific group apart - and that was Buteyko's Laboratory of Functional Diagnostics. It was not as if it was in separate premises - far from it. It felt the heat from all the warring factions, right, left and centre, especially Pomekhin's. But it did not react.

Waves of vituperation broke on the Laboratory's thin partition walls, but that was where they ended. Behind them people went about their heavy daily caseload. Even outsiders realised that the staff who worked there just did not have time for in-fighting! From morning to night, they were busy with their own important

responsible work for all to see, unlike other units. The President's conversations with patients were conclusive confirmation.

Academician Lavrentiev did not usually take impulsive decisions, but once he had made up his mind about something quite firmly he acted. He summoned Buteyko to a meeting of the Regional Communist Party Executive Committee and in the presence of Party Secretary Petrov himself invited him to become Director of the Institute.

Just for one tiny second, something quivered in the Doctor's soul. The directorship would open unseen possibilities for him to promote his Method. No one would dare wall up the patients' door to the Laboratory again, and their jackets and fur coats would no longer lie in a heap on the filthy floor. He would be able to spend significantly more on the Laboratory and expand his staff. He would be able to get new premises. He could.... In fact he couldn't count all the things he would be able to do if he accepted the post! However, like many other honourable and intelligent people, Buteyko did not lust for power. Their work is far more precious to them - and often they take decisions that undermine it.

"No. I won't!" Buteyko said categorically, discomfited by the thoughts that suddenly swept over him.

"Why ever not?" Lavrentiev asked, with obvious displeasure and ill-concealed alarm, drumming the fingers of his left hand on the polished table top nervously.

"Irreconcilable enemies are at each others' throats in the Institute," Buteyko said quietly, speaking slightly slower. "I have neither the time nor the opportunity to try to reconcile them. In my view it is a completely useless exercise." He fell silent and waited for their reaction. Blushing slightly, Party Secretary Petrov coughed into his fist.

"For me it is far more important to continue our research on the combine-complexator with no interruptions - which is what I am doing at the moment."

"Well, you would hold all the cards!" The Academician jerked at the last remark. "Become Director and nothing will get in your way."

After failing to get a positive answer from Buteyko, a short while later Academician Lavrentiev convened an urgent meeting of the Presidium of the Siberian Branch of the Soviet Academy of Sciences to resolve the situation in the Institute for Experimental Medicine once and for all. There was a possibility that Professor Pomekhin's whole establishment would be closed down and dismantled.

The Professor's ubiquitous spy network had informed him of Buteyko's serious talk with the Communist Party Secretary. Pomekhin was terribly put out. He had put so much hard work into ousting Danny the Dreamer! So much effort and energy - just to have him as Director!

That Pomekhin just could not stomach. It meant all his misgivings had been true: it was not the theoreticians, not the Milmans and others that blocked his way, but Buteyko! So quiet, so diligent, so dedicated to his science - on the outside.

They must be joking! No one had ever managed to take Professor Pomekhin for a ride! Just three hours before Academician Lavrentiev's Presidium met, Professor Pomekhin summoned Buteyko to his consulting rooms. Dull October sun cast a cold light over the Director's office.

"You have no place in a surgical institute, with your respiratory research." Screwing his watery eyes tight with the effort, Professor Pomekhin made a direct hit. "It would be most logical if you resigned."

Though his manner was mild, Dr Buteyko could also hit a winner even when he had been taken off guard.

"We still don't know which us will have to resign." At this, the Professor even sat down. "I will work wherever I feel I am needed!" The Doctor could feel his jaw set.

For the moment there was deadly silence in the consulting room: an old intractable argument was drawing to a close.

Listen to him! He really is aiming to be Director, Pomekhin thought.

What an unpleasant androgynous mug the man has! Buteyko found himself thinking, incensed.

"For the time being I am still boss around here!" Pomekhin shouted, red with anger, at the Doctor's receding back. "It's my institute. Mine and no one else's!"

As he pulled the door to behind him, Buteyko shrugged ambiguously, as though at a loss to understand.

If Professor Pomekhin had not gone so fiercely on the attack, possibly Buteyko would not have spoken at the Presidium. He would have let the theoreticians and surgeons have a go at each other's throats because the Doctor did not like getting embroiled in all their in-fighting. And although the Professor put down the work of his Laboratory more than any others', it was unlikely Dr Buteyko would have spoken from the podium.

But Professor Pomekhin had been smarting with suspicion and scared to death of losing his throne. He had had riled Buteyko too far by threatening to sack him.

"I shall say something!" Buteyko thought. "But I won't be the first. I'll give the fighters a chance to work off some steam."

But alas, the fighters did not turn up at the meeting. The Milmans and Shikhmans were only good at scribbling denunciations to the Communist Party Central

Committee. When a sullen Academician Lavrentiev invited anyone with a complaint about the Institute to express their views directly, an awkward silence descended on the hall.

The leader of the theoreticians studied Lenin's portrait with exaggerated interest, and the leader of the physiologists began examining the toe caps of his polished boots. The President waited.

"Surely somebody wants to say something?" He adjusted the Parliamentarian's insignia on the lapel of his immaculate dark suit. "After so many letters. So many complaints."

Lavrentiev glanced in the direction of Professor Milman, shaved close as a billiard ball and for some reason suddenly embarrassed.

"That's strange, comrades." The Academician improvised, somewhat at a loss. "We have come together here to speak frankly."

"May I?" Buteyko flung up his right hand sharply.

"Be my guest!" Academician Lavrentiev leant towards the microphone with pleasure. "I give the floor to Professor Buteyko." In the heat of the moment he exaggerated Buteyko's status.

As he mounted the stage, Buteyko noticed how Pomekhin's womanish face had fallen, completely ashen. As he faced the expectant hall, he suddenly thought, so much for your underhand skulduggery. Always the invisible string-puller. His glance paused for a moment on Professor Milman, the leader of the theoreticians' group, whose face had immediately brightened. He began to speak, improvising as he went along:

"When we were back in Moscow and Professor Pomekhin shared his plans with me for developing our institute, he called it a medical-biological institute. It was to embrace a whole complex of serious scientific research, encompassing issues at the margins of contemporary medicine and biology. It was intended to put research into gaps in human physiology at a proper level. To refine functional diagnostics that remain crude even to this day. And to carry out profound theoretical groundwork. But what do we have today? "

He jerked his head at the hall. Professor Milman, an imposing figure in the third row, shrugged his shoulders and rolled indignant eyes heavenwards.

"In the few years that have passed since then, Professor Pomekhin has managed to forget all about the plans he himself had," Buteyko said, sonorously. "With amazing ability, not to say intrinsic cynicism and deviousness, the Director has transformed a leading research institute into the drabest, most third rate municipal clinic."

The Doctor turned to Pomekhin, who was trembling under the onslaught. He tried to get to his feet, but Lavrentiev gestured him to stay where he was.

“You may say that a municipal clinic does not do heart surgery,” Buteyko continued, increasingly getting into his stride. “But what do you call an institute that gives you only one branch of common-or-garden medicine - basically heart surgery - instead of in-depth academic research into medical biology on a solid theoretical and practical basis, as promised? A branch of medicine led and doggedly promoted by Professor Pomekhin. There is no question about it - it is an important and necessary branch of medicine. But if so, why dress it up in broader scientific language and under its cover get into the Siberian Branch of the Academy of Sciences?”

Behind Pomekhin the hall began to applaud Buteyko.

“An establishment with a purely surgical profile - and a ‘cardio-surgical’ one at that - should be part of the Ministry of Health, and not living off the Academy of Sciences.” Buteyko adjusted his microphone. “Or else Professor Pomekhin and his surgeons will grow fat while the physiologists and theoreticians waste away more each day.”

He said much more at that meeting and spoke for 30 minutes. Cheered by his support, Dr Milman wiped his hands fiercely. Pomekhin was simply a terrible sight: he was so angry with Buteyko he looked fit to burst.

With mathematical precision, citing incontrovertible facts, Buteyko proved that the root of all the misfortunes befalling the Institute was its Director. As he drew to a close, he proposed that Pomekhin and his surgical brigade be reassigned from the Academy of Sciences to the Ministry of Health, and all the research staff left in position.

Professor Pomekhin looked sick as a dog at that point. It was a long time since he had had a kicking like that - and by someone he had been trying to grind to a pulp for years! Anyone other than Buteyko would probably have drunk himself to death or left (and there were many examples of both!). But now they were expelling a candidate for the Nobel Prize like some mangy dog - and doing it at the suggestion of Danny the Dreamer!

The decision to remove the Pomekhin faction from the Academy of Sciences was adopted by overwhelming majority. The Director's opponents could celebrate a victory - but only a partial one. They had got Pomekhin out of the Academy of Sciences, but removing him there and then from the Institute's premises was impossible. That required time. Meanwhile, to all intents and purposes, everything remained as before - except that a group of Pomekhin's opponents was formally attached to the Institute of Genetics and Cytology which was housed in the same building. They included Dr Buteyko and his Laboratory.

'Attached' they might be, but the victims could not be protected from their tyrant straightaway. He was still there after all! Next door, in his old rooms, with all his old ambitions and unreasonable demands. And before the Institute was broken up, Professor Pomekhin announced that he too needed a laboratory of functional diagnostics (like that of the hated Dr Buteyko) and they would need to divide it up.

It was divided in an extremely idiosyncratic way. Of his 50 staff, Dr Buteyko was left with 12. Pomekhin was even more cavalier with the priceless equipment for the combine-complexator that Buteyko had personally helped acquire and assemble. He simply gave instructions for most of it be dragged into his half of the building! And did so on the sly, as always, while the Doctor was absent on an urgent work trip. An avenging angel had gripped Pomekhin's heart. Revenge! At all costs he wanted to punish Danny the Dreamer severely for the division! And what could be worse for a scientific inventor than being deprived of the skilled assistants and apparatus essential for scientific research?

He had not managed to get rid of Danny the Dreamer physically (though he had tried everything he could) but he could still destroy him morally. What would the little upstart do when he got back from his trip, fired up about his breathing therapy, to find his Laboratory almost empty? And his staff reduced to a quarter? Pomekhin kicked the expensive capnograph that faithful Mutin had carted into his office for temporary safekeeping.

"Did you say the Buteyko people measured the body's carbon dioxide content with this crappy machine?" the Professor asked crudely, in reply to Mutin's quizzical look.

"Buteyko got it for hard currency from a Dutch firm," Mutin answered willingly.

"And have we left him many pieces of apparatus like that?" Pomekhin asked with faked interest, having personally supervised the stripping of the Laboratory.

"No, virtually none," Mutin wiped his face with the palm of his right hand, hung-over from the night before and so looking blearier than ever. "But you can't just clear everything out," he cautioned.

"We don't need to," Pomekhin said, walking over to his desk and starting to sift through the documents on it. "We don't need to clear out everything. We'll do everything by the book." He took out a comb and carefully combed the top of his head where the hair was visibly thinning. "Something's got to go to him, and something's got to go to us...."

He had absolutely no need of the capnograph (like much of what he had confiscated from Buteyko); he was not planning to measure the CO₂ levels of his patients. But Pomekhin knew what the apparatus meant to Danny the Dreamer, and his heart sang. It never entered his head that Buteyko might have anticipated this and taken preventive measures.

But Buteyko had. He might misjudge some things, but not for one minute did he doubt the depths of the Professor's deceit. And so, before he went away he left parts on the combine-complexator that were mostly worn out, some of them held together just on a wing and a prayer. New spare parts and brand new duplicates for the apparatus were hidden in a small cupboard that looked as if it contained junk.

On top of them he piled all manner of paper printouts and oscillogram boxes so that even Mutin did not think to rummage through them. He had not been working in the Laboratory for quite some time and thought he already had the best of Buteyko's equipment. How great was the Professor's dismay when he discovered soon after that much of what he had raided was unfit for use. But Buteyko managed to find substitutes for almost everything that was stolen as though with a wave of a magic wand.

CHAPTER 15

A new colleague, or, what therapeutic exercise can teach us

And so the Institute was broken up, although though this did not make life much easier for Dr Buteyko. He still had a deadly enemy close at hand who had no intention of laying down his weapons. But still, he could breathe a bit more freely. Of course, the 75% cut in his staff made itself felt, but he just had to look for a way out of the situation.

It was at this difficult time that he chanced to meet a specialist in therapeutic exercise whom, after long conversation, he invited to swell the Laboratory's depleted ranks. Natalya Voronova knew about Dr Buteyko's work from articles published by the Institute for Experimental Medicine. His idea that deep breathing provokes bronchial spasm in asthmatics had shaken her to the core.

At that time - the middle of 1963 - she was working in the Kemerovo sports clinic in central Siberia, mostly in therapeutic exercise. Her choice of profession was no accident. She was herself a champion gymnast, had taken part in the first post-war USSR Sports Parade, and graduated from the Lesgaft Institute of Physical Education in Leningrad in 1957. Ever since, she had committed her life to helping people get well through holistic sport and to therapeutic exercise in general.

She knew better than anyone that all contemporary therapeutic exercise was based on breathing deeply. However, she could not helping observing that some patients did not respond well by any means. More than once she was astonished to see patients with pulmonary and cardiac complaints start fighting for breath even more desperately than before, despite all her efforts and her constant refrain of "take a deep breath, take a deep breath". When this happened, what surprised her most was that patients felt far worse when they began breathing deeply from a standstill. Breathing deeply came easier when they were physically exerting themselves. But the orthodox guidelines of the time said that every exercise should begin with hands on the hips, and approximately one minute's so-called prophylactic ventilation of the lungs.

"Form a straight line! Hands on hips, and breathe in! Breathe in as deeply as you can! Ventilate your lungs..." She would repeat this day in, day out, and it was only after 'ventilating' their lungs like this that the asthmatics would start their exercises proper. There was a countrywide compulsion to "take a deep breath" and so Buteyko's "don't breathe deeply" came like a bolt from the blue.

It wasn't that Natalya instantly believed in the Doctor, but she was so astonished at his discovery and so troubled by her own growing doubts that she wrote to him asking if she could come and talk about everything that was worrying her face-to-face.

At the very end of October, when the Doctor was just back from his work trip and still trying to patch up the gaps in his technical equipment left by Professor Pomekhin, she stepped into the doorway. Something about her blonde athleticism, her medium build, and her youthful energy immediately caught his

attention. It could have been her firm handshake, or the frank, alert look of her attentive grey eyes. Probably it was her genuine delight when she caught sight of the famous combine-complexator from the doorway - she had the unpretentiousness characteristic of many sportspeople. At the invitation of its creator she carefully walked round the special little couch in its tiny cubicle curtained from view, plastered with its plethora of wires and instruments.

A high forehead and a Ukrainian smock showing under his lab coat were the first things that struck new acquaintances about Buteyko's appearance, in addition to the youthful skin of someone who did not smoke. They talked for a long time. Natalya Voronova asked what she should do in future - according to Dr Buteyko's theory everything she had done to date was wrong. One moment putting on his glasses, the next taking them off, Buteyko told her quite candidly about the results of his research. She was even surprised by his frankness: it was not usual to bare your soul in the academic world, and they were not just talking about medical matters.

Buteyko talked about his Method for consciously reducing the depth of one's breathing and about what the world normally considers 'healthy'. He believed that one of the main causes of wars in our highly stressed and volatile world was deep breathing by the people who instigated them.

"Just think," Buteyko leant back in his chair, and pushed his white cap to the back of his head, revealing neatly combed hair as he did so. "Just think! The bloodbath in South Vietnam has gone on for nine years already. Ngo Dinh Diem's dictatorship, abetted by US regular forces. What do you reckon - are all these people breathing normally?"

Natalya primped her hair coquettishly.

"I assure you that the headmen of all these hordes, and the cannon fodder too, for the most part suffer from mental deficiencies brought on by constant over-breathing. It is all very simple." Buteyko's piercing eyes gleamed quizzically under his glasses. "Deep breathing does not increase the volume of oxygen in the body, it decreases it, and cerebral hypoxia sets in as a result. And when the brain starts getting less oxygen than it needs, it starts to function less well, and quite naturally a person grows duller. And a peace-loving population starts exterminating over 150 thousand people, who had themselves triggered some local, utterly parochial little war. Those statistics stick in my memory from an article in the press. And they start wounding and taking hostage 670 thousand more."

He has a terrific memory, Natalya found herself thinking as she listened to him, rapt.

"And throwing hundreds of thousands of Vietnamese in jail, 8,000 of them children!" Dr Buteyko gave his head an unnatural twist, as though his neck was in an invisible noose. "And torturing and murdering nuns, and raping 15,000 South

Vietnamese women. Did you see those people immolate themselves on TV?" he suddenly broke off.

"Those were awful pictures." Natalya covered her face with her hands.

"One after another, six people poured petrol over themselves and set themselves alight in public places in protest against all the lawlessness." The Doctor was on his high horse with indignation. "What do you reckon. Could rational beings drive people to do this? Whatever the politicians say, it is completely clear to me as a doctor that only individuals with diminished rationality could be so savage. The USA, you know, is a very right-thinking country, and in time I think they will appreciate the senselessness of their blood-letting in Vietnam. But all this could have been avoided completely if the human brain had not been occluded by deep breathing. Excessive greed, and a bestial thirst for flesh and blood - these too are what hyperventilation brings us. "Hyper" means 'in excess of the norm'. And here we are overturning all our normal structures and beliefs, moral and ethical. I haven't frightened you, have I?" the doctor asked, with a gentle smile.

"No, of course not. What you say obviously makes definite sense," Natalya said and pulled her pale blue sports bag closer to her feet.

"As for you," Buteyko stared at the Olympic rings on its side, "We need young, enthusiastic people."

Natalya blushed with embarrassment.

"Yes, young people, with open minds. Because this is a new field. I can offer you a place in my Laboratory...."

Her heart leapt.

"True, only..." Buteyko paused and Natalya waited on tenterhooks. "Our salaries are low, and we could only offer you 98 roubles a month." Buteyko whipped off his glasses and looked her straight in the eye. "How much do you get at the clinic?"

"A therapeutic exercise specialist counts as one and a half posts, so I get slightly more... But I'll say yes!" Natalya said without thinking.

She still could not believe her luck, but the doctor was serious. She was indeed taken on at the Laboratory of Functional Diagnostics, and not once did she regret it. Nor did Buteyko. He had other doctors of course, but the young therapeutic exercise specialist really interested him because school physical education was where it all started. "Take a deep breath. One, two, three..." and they were off: over-breathe, my dears, fall ill more often. To have a therapeutic exercise specialist on the team and make them a confirmed opponent of deep breathing would be no bad thing.

His hopes were justified. Not only did Natalya hold her own, but 18 months later she was able to go at Dr Buteyko's behest to one of the leading asthma treatment centres in the country (with a low success rate, unfortunately) and conduct a semi-official trial of Buteyko's method with extremely positive results for the patients.

Everyone in the Laboratory accepted Natalya Voronova as one of their own. Apart from her there were two other doctors, two young mathematicians and one physicist. Most of the six laboratory staff and doctors were women. Two of the young chaps took evening classes in the biology faculty.

The staff proved to be like a warm family. They spent weekends and holidays together, and literally as soon as she moved to Novosibirsk Natalya got married. She and her husband were given a room on Marine Avenue, the beautiful road running right through a pine glade. Everything worked out for the best. But best of all, naturally, was the work. Natalya landed in the Laboratory at a key moment - when they were developing the first manual on the volitional elimination of deep breathing. This wasn't just an in-house manuscript to be passed around between patients, but a real official handbook that would be printed in a state publishing house.

That was where her acumen as a trainer came in handy! Dr Buteyko had given instructions that patients were to be trained how to reduce the depth of their breathing in a number of ways: lying down, sitting up, reclining and so on. And in each position, his top-class instruments would objectively quantify the volume of carbon dioxide in their body. They took readings while patients were walking and while they were doing exercise.

Buteyko would always say, "We must develop and polish a technique that will be accessible to everyone and easily applicable." They worked themselves into the ground for laughably little money, but no one complained. The combine-complexator could not stand idle - it cost too much - and after the break-away from Professor Pomekhin, it virtually had a second life.

"A proper handbook is essential," the exhausted Doctor would remind them every so often, looking at the endless stream of patients. "However much you explain," he nodded at a patient lying on the special couch covered in a sheet, "there are still people who will forget it all and periodically start messing up the technique and themselves...."

Feathery snow fell outside the laboratory windows. 1964 approached and the Doctor began to get visibly worried. The publishers had already commissioned a handbook from them, but they had still to work out a definitive text.

"You understand, Natalya," Buteyko turned to her again as she concentrated on a printout from the ballistocardiograph, "that a set of instructions will never be a substitute for a trainer. In that sense, any instructions are a nonsense. The Method is like Tibetan medicine and can only be passed on from person to person. But a

small handbook will of course be a good aide-memoire for those who have already undergone the course."

As they heard this conversation Kolya and Dima, the two extra-mural students from the biology faculty, lifted their heads from the equipment.

"Absolutely!" Kolya agreed, as tall and thin as a pole and whiter than any sheet. "Take that old dear, Mrs Grekhova. She needs a handbook just to get to the bathroom. " Dima, his shorter colleague with a blond beard, stifled a giggle at this. Kolya ignored him, straightened his rather grubby green tie, and continued. "Even if you drill it into her brain twice a day."

"Who's Mrs Grekhova?" Natalya asked, marking something on a printout with her pencil.

At that moment the laboratory door suddenly swung open and two men carried in a white-haired old lady by the arms. She was bent double in an extremely severe attack. Her head rolled from side to side and her wizened arms, held pinned at the elbows, continually shook. A harsh asthmatic cough seemed to tear her in pieces.

"Speak of the devil, here she is!" Buteyko rolled the left sleeve of his lab coat further up and hurried over to their visitor.

"Her again?" he asked the hefty man who had brought the old lady in and held her by the shoulders. The man wore stitched felt boots such as people wore in the countryside, and Buteyko raised his voice a little as he spoke to him. "Was it the same as last time?" he asked, pushing a free chair towards the old lady.

"Where else are we supposed to go, Dr Buteyko?" the man said through his tears. Natalya later found out that he was the patient's husband. "You are our only hope. She has been so bad recently. No medicines help and none of the hospitals will take her. She's got worse and worse." He wiped his wet, wrinkled cheek.

"Now, now, Mrs Grekhova." Buteyko looked at the old woman, who guiltily avoided his eyes. "Please come into my consulting room." He pointed to a curtain lifting slightly in the breeze. "I would like to remind you, sirs," he added for the benefit of the men accompanying her, "that if you have this sort of cavalier attitude to the Method it will be of no benefit to you at all. Worse than that, it might even be harmful. This is the fourth time in 18 months. Think about it!" Dr Buteyko shook his head sadly as he headed for his consulting room. "Ms Voronova, could you please come with us," he threw over his shoulder as he went.

CHAPTER 16

A lesson in how to overcome an asthma attack. A celebrated school teacher

When they had seated the old lady in the tiny consulting room, Buteyko asked her sternly, "Now, what must we do to get rid of an attack?" Mrs Grekhova was gulping for air through her mouth. She raised helpless rheumy eyes at him then was convulsed by coughing.

"Ms Voronova, assist the patient please," Buteyko suggested. Natalya started firmly straightening up the hunched patient.

"Close your mouth! Shoulders back. Further," she ordered. "Try to relax your stomach and to bring your breathing down. Breathe just a little. Don't suck in air like a pump, just breathe a tiny bit."

Natalya walked round the back of the old lady as she followed her instructions. With one deft movement of both hands, Natalya grasped the old lady's shaking abdomen with her strong, trained fingers and gripped the bottom of her heaving ribcage between thumb and index finger.

"Reduce the depth of your breathing. Make each breath more shallow than the last. Breathe only through your nose. Relax. Relax your abdomen." Natalya sensed that the patient was beginning to follow her advice. Her abdomen loosened and her diaphragm quivered perceptibly less. Shortly afterwards Mrs Grekhova had greatly improved and Dr Buteyko led her through to the special couch.

"You've already learned pretty well how to get rid of attacks," he praised Natalya, who was perspiring from the effort. She carefully tucked a lock of hair under her starched hat. "Only," he paused, "don't get carried away holding on to the abdomen and ribcage. You can, of course, help the patient at some points, but they must do the work for themselves."

Buteyko rose slightly from his chair.

"We overcome an asthmatic attack and all the symptoms of asthma not by holding our breath but by reducing the depth of it through relaxing the diaphragm!"

"Well, that's what I told her," Natalya Voronova responded, slightly put out. Her wide eyes expressed keen interest as they fixed the Doctor steadily with feminine ambiguity. "But who is that woman? Why did the boys mention her today?"

"Mrs Grekhova?" Buteyko again rolled back his left sleeve. "She's a special case. I'll tell you all about her." He briefly excused himself, went to the combine-complexator, checked on the patient, gave the necessary instructions and came back to his consulting room.

"Mrs Grekhova is fatal - in the most literal sense of that word," he said, noticing faint surprise in Natalya's eyes. "She is one of those people who start by praising the Method to the skies, then slag it off mercilessly as a result of their own sloppiness. She's an utter nightmare."

Buteyko shuddered.

"Mrs Grekhova first came to us the year before last. She was practically a stretcher case. Panting for breath, twisted and wrinkled like a 70-year-old woman, no less - when in fact she only recently turned 54." Buteyko again looked out of his room and said something to Kolya, who was standing nearby.

"She was registered disabled at 52 with the full complement of complaints old women traditionally have: asthma, hypertension, angina, haemorrhoids, colitis, gastritis, and acute polyarthritis in her joints. Her hands were so clenched that sometimes she was unable to uncurl them herself....

"Well, we got rid of her attack and examined her using the combine complexator. The carbon dioxide level in her lungs was terrible - just 3.5%. She breathed in and out through her mouth like there was a gale in the room. We took down all her details and did a medical check-up.

"I started chatting to her," Dr Buteyko smiled tiredly, "and asked her why she thought she had asthma.

"'Well, son,' she spoke to me as though I was a child, 'I was a primary school teacher and caught a dreadful cold, son, and that's how it all started.'

"'And your heart trouble - the hypertension, the angina - how did they start, do you think?'"

As she listened to the Doctor, Natalya rested her chin on her hand, covering her dimple with her second and third fingers.

"'Because my work was so stressful,' she said. 'What can you expect from a teacher?

"'Very well!' I said. 'We have just got rid of your asthma attack. Let's you and I take a few little deep breaths, and see how you feel.'" Buteyko fell silent for a second, listening to what was going on behind the curtain.

"She lasted less than a minute! Her cough came back straight away and so did her suffocating spasms. And, as she put it, the blood hammered in her temples. Plus she had sharp pains in her stomach - because she had colitis and gastritis too. I told her to breathe less deeply, and immediately everything came under control.

"'So,' I said to her, 'my dear Mrs Grekhova, remember now for once and for all, that all your woes come from breathing too deeply!'" Dr Buteyko enunciated the

last words with special emphasis. "At first Mrs Grekhova rolled her eyes with surprise. But after I had explained what was what, and demonstrated how she needed to use the Method if she was to get rid of the attacks herself, she seemed to grasp it."

Buteyko raised a finger. "She won an Order of Merit of the Russian Soviet Federated Socialist Republic as a school teacher no less! Well, we've had some grief with this honoured personage." A tetchy grimace disfigured the Doctor's chiselled features. "God save us from another one! Since her, I've come to fear all teachers, directors and others of that ilk like the very devil."

Natalya could not help but giggle into her fist.

"As I say, she grasped the Method fairly fast" Buteyko recalled. "Within a month she had got rid of virtually all her complaints. Her pause had risen from four to 37 seconds consistently, and sometimes it got to 40. And when it reached 40 and over, her polyarthritis lost its grip.

"Her hands began to uncurl. The colitis and gastritis stopped plaguing her. When her pause got to 25 seconds, she basically saw the tail end of her asthma. She even seemed younger to look at. Now it was inappropriate to call her an old woman. She was a normal woman of 45 years of age."

Natalya detected real pride in Buteyko's voice.

"'Just who is trying to keep this Discovery from the public?' Mrs Grekhova started raging. A pillar of the establishment in high dudgeon. 'If my relatives had not chanced to come into contact with a former patient of yours, I would be six feet under.' She shook, she turned red. 'How many years have I trekked round hospitals. I'm registered disabled. And I'll contact every Communist Party committee. I'll write to First Party Secretary Khrushchev,' she cries, 'and to the United Nations! I'll bring down every barrier to your Method being recognised!'" There was a glimpse of real anguish in the Doctor's darkening eyes. "Recognised..."

"Mrs Grekhova kept her word. She sent passionate letters to the Novosibirsk Regional Communist Party Committee, to the Communist Party Central Committee, to Khrushchev, and even to the UN. They said, 'While thousands of people are dying every day from incurable complaints, the medical establishment in our city has kept the most potent antidote under wraps... Punish those responsible... Invest in this Method...' She used to send me a copies."

"Well, what's bad about that?" Buteyko had become sad and Natalya took his hand.

"Bad?" Buteyko cautiously freed his hand, leaving his warmth in her palm. "What is bad is that after this lady's letters, I devised a rule for myself: never completely to trust patients who immediately start lavishing praise on the Method."

"Don't get me wrong," the Doctor flexed his shoulders. He was always careful about his posture. "I am not against active and triumphant supporters spreading the word about the diseases of deep breathing. I actually think we need more of them, and that most cured patients are selfish when they keep shtum."

Natalya nodded in understanding.

"But Mrs Grekhova (and she was only the first) was a vivid demonstration of the real price of attracting supporters who are too quick, too instantaneous. Do you know *what* she did? After a couple of months of feeling completely fine, she ditched all her exercises! She expressed her regret for this herself later."

The Doctor started examining the cardiogram that Kolya handed him round the door.

"Despite the fact we warn every patient a hundred times over not to give up their exercises. Despite the fact I warn them myself that if you are giving up your exercises, you are giving up on the Method and, naturally, it will give up on you.

"But deep breathing has made their thickheads dull, and only a few traces of the Method stay with them. The pause is the only thing they remember. Holding their nose." Dr Buteyko took the tip of his finely chiselled nose between two fingers. "They completely forget that the Method does not consist of the pause, but in the gradual reduction of the depth of one's breathing. Not everyone forgets, of course, but teachers and film directors are particularly prone."

Natalya noted a steely edge to the Doctor's voice.

"Probably it is hard for them to learn anything because they are so used to teaching. So it was with Mrs Grekhova, and she later told me in tears that after two months she even stopped measuring her pause, let alone practising the Method."

Buteyko saw from the cardiogram that the patient's health had deteriorated and put it to one side with a dissatisfied air.

"And I drummed this in during the renowned teacher's lessons! I told her that today she might have a 45-second pause and feel just great, but that in a week or two if she didn't practise it would be less than 30, but she would still feel OK. The dangerous thing is that when people give up practising, they give up measuring their pause as well and assume that it is still 40 seconds because they feel alright."

Natalya listened intently. During these open conversations she picked up much useful information.

"But their pause has already plummeted to 20, and then gets worse. Until finally," Buteyko shook the folded printout and thumped the desk with his fist, "they cross into the danger zone! The quantity of carbon dioxide in their body goes down to

a critical point. They suddenly collapse. And our patient, who last night was feeling tolerably well, is now gripped by severe attack of the condition they no longer even thought about!

“And the first thought that comes to their mind is not, I am a backslider who ditched my exercises and now I have been punished. Alas!” The Doctor had been on the pointing of rolling up the printout neatly, but suddenly threw it to the corner of his desk in irritation. “Alas, the first thought that come to their minds is, this means that the volitional elimination of deep breathing does not work for me!

“Do you follow me?” the Doctor grabbed Natalya by the flap of her open lab coat. “They don’t see themselves as lazy louts. They think the Method was ineffective for them! And the fact that they had completely forgotten about it for weeks and couldn’t even be bothered to measure their pause has gone straight out of their heads.

“That was the story with our old dear, Mrs Grekhova. She threw in her classes and one fine day was doubled up with an attack. Naturally there was an ambulance, hospital, in-patient stay.... Good nurses popping pills into her mouth till she was ready to throw up. Injections several times a day. And the old dear - who really did look like an old woman when her condition was acute - got worse and worse. She told me afterwards, ‘I tried using the Method when I was in hospital. I held my nose as best I could. But as soon as I let go, a cough would stifle my breath and suffocate me...’

“There’s someone with an Order of Merit for you! Apart from holding her nose, not a modicum of theory remained with her.” Buteyko wrung his graceful, sensitive fingers till they cracked. “Although we drummed into her that it’s not that you have to hold your breath, it’s that you have to reduce the depth of your breathing. Holding your breath incorrectly just leads to overbreathing. The symptoms of your condition just get more acute. To everything there is a happy medium.”

“And how did her hospital stay finish?” Natalya wanted to hear the end of this edifying story.

“How could it finish?” Dr Buteyko unclasped his fingers. “So far pharmacology has not produced a cure for asthma. And it never will!” he added with conviction. “They do not know what really causes it - which is breathing too deeply.

“The old lady became deathly thin and was on the point of dictating her will to her relatives. They were alarmed and said they were going to see Buteyko again. Mrs Grekhova rolled her eyes. ‘Why? I saw him before. His Method doesn’t help me.’”

Natalya was quiet. The Doctor threw her an inquisitive glance. Would she get the point of what he was saying?

“The long and short of it was that they brought her in flat on her back. I immediately put her on the combine-complexator. She had hardly any CO₂ left. We introduced a bit more artificially, and she started to revive.

“I kept on chatting with her and asked, ‘Why do you have asthma?’

“‘I got it after a cold, dearie, it often happens...’

“‘And why do you have hypertension and angina?’

“‘It’s my nerves, Doctor, it’s my nerves.’

“What can you do?” Buteyko spread his hands bitterly. “We started again. Gradually, with my assistance, the celebrated teacher recognised all her mistakes.

“‘Wild horses wouldn’t make me stop practising again,’ she assured me. This time she found it twice as hard and twice as long to master the Method. Paradoxical as it might seem, that is the general rule. The Method is twice as hard for people who have betrayed it.”

Behind the little curtain they could hear Mrs Grekhova’s lamentations as she got up off the special couch. Her examination by the combine-complexator had come to an end.

“Again, we got her pause up to 35 seconds, and again she was off.” Buteyko finished. “Again the letters to the district and regional Party committees, Khrushchev and the UN, copied to me. I do my best...” Dr Buteyko nearly took a deep breath with emotion, “but when they brought her in half dead a third time, when she told me again that asthma comes from having a bad cold, my first instinct was to reach for a gun!”

“Do you not believe me?” He took Natalya by the elbow. “I suggest you try for yourself.”

They went through into the Laboratory and stopped next to the white-haired lady, who was quietly resting on a chair. Natalya straightened the crumpled collar of Mrs Grekhova’s dress and asked, “What do you think caused your asthma?”

The teacher drew up her dry, veined feet beneath her and said, “Lovey, some time ago I caught a terrible cold in the rain.”

Buteyko shot out into the corridor, almost knocking over the next patient in the doorway. If he had known that 13 more meetings with Mrs Grekhova were in store, he might have thrown himself out of the window...

CHAPTER 17

The first handbook

Natalya Voronova found her work in the Laboratory very interesting. Working with so remarkable a scholar as Dr Buteyko more than compensated for any difficulties - although difficulties were in no short supply. Even setting aside the by no means insignificant matter of the pitiful salary (98 roubles), there were slings and arrows of fortune aplenty. Natalya quickly realised that Buteyko's discovery of the diseases of deep breathing had made him the target of relentless persecution.

Professor Pomekhin had ceased to have authority over the Doctor on a formal level only. No break-up of the Institute was going to make him abandon his malicious manoeuvrings. Natalya's colleagues (who, like herself, felt the considerable weight of Pomekhin's hand on their shoulder) told her in strictest confidence that Dr Buteyko had several times been invited - at Pomekhin's instigation - to attend the psychiatric hospital, ostensibly for some kind of consultation. Moreover, there were rumours that they had him on their books and were actively trying to get him diagnosed as schizophrenic. "Once they've decided to use psychiatry against him, there'll be no let-up..." Natalya's closest colleague had commented. "They'll do whatever it takes to grind him down. He managed to treat one of the top brass with his Method in the nick of time - just as well, because otherwise they'd have shown him no mercy," the colleague concluded.

The stress of the situation made itself felt everywhere. Admittedly, the Laboratory was affiliated to a different institute now, but that didn't mean they'd stopped treating people! Their treatments were a hundred times more successful than Pomekhin's - and the self-appointed cabal who controlled the medical establishment couldn't forgive them that. If they couldn't actually manage to get this troublemaker Buteyko consigned to a secure ward, they could at least weave an invisible (but effective) tissue of lies round him. OK, they would say, he hadn't yet been kicked into touch like he should be - but that day would come ... And all this was a psychological hurdle which had to be overcome not only by Buteyko himself but also by the people engaged alongside him in their uphill struggle.

Producing the methodology handbook had been a particularly demanding task. It was of course not the first attempt at this kind of overview and systematisation of the materials gathered. They had been doing their best to circulate handbooks unofficially for a long time. But this was the first to be published officially. It appeared in print in 1964, just before the Mayday festivities. It was a greenish colour and smelled of printer's ink. At the top of the dust cover was written in small print: K. P. Buteyko, PhD (medical sciences). The Doctor, pleased as Punch, had given everyone several copies each. He'd handed a whole five copies to Natalya, who was as pleased as he. She kept reading what was printed on the cover: *'Handbook for the treatment of bronchial asthma, angina pectoris, hypertension and obliterating endarteritis using the Method of Volitional Elimination of Deep Breathing.'* This was followed in parentheses by:

'For doctors who have undergone specialist training in the Laboratory of Functional Diagnostics.' They'd had to include this rubric, but actually the establishment had so far been in no hurry to allow any doctors to come to them. For the most part, the handbook would actually be used by patients themselves. "We'll only give it to people who've completed our training course!" Buteyko declared. "Just as a kind of checklist. Because in any case no-one can really grasp anything without the help of a trainer." There was a buzz of approval from his comrades-at-arms.

Natalya continued perusing the text they'd been so carefully working on just a short while ago: 'After many years of using the 'combine-complexator' (a unit combining various instruments producing physiological data) to study the conditions indicated ...' The phrase brought Natalya up short: '*the conditions indicated!*' Yes ... if they'd allowed Buteyko to list all the illnesses the Method could relieve, just think how many more patients they could have reached! But as it was, there had been immense difficulty in getting the go-ahead for even the limited list of conditions in the text. Why? Well, think about it: if this one sainted Method had been painted as a cure for numerous complaints, it would have smacked of a panacea. So it had been a case of 'Steady on, folks! Don't over-egg the pudding...' Natalya brought the handbook up to reading distance again. No matter - they'd included what they could. Even as it stood, it was a real triumph.

She continued reading the familiar text: 'With the cooperation of other institutes of the Soviet Academy of Sciences (Siberian Branch), the Laboratory of Functional Diagnostics (Director K. P. Buteyko, PhD (medical sciences)) of the Institute of Cytology and Genetics has discovered one of the primary direct causes leading to the emergence and development of the conditions indicated. The cause in question is a breathing dysfunction which takes the form of chronic **hyperventilation** of the lungs (an abnormal deepening and increase of the rate of breathing whether the subject is at rest or exercising)...' She was pleased to note that the word 'hyperventilation' stood out in bold type.

'... A reduction of carbon dioxide levels in the body, constriction of blood vessels and tighter binding of oxygen to the blood reduce the flow of oxygen to the cells of the heart, brain and other organs, damage the bronchial tubes and blood vessels, stimulate the nervous system, adversely affect sleep, and give rise to shortness of breath, headaches, tinnitus, angina attacks, metabolic disorders, weight gain, high blood cholesterol, a rise or fall in blood pressure, biliary dyskinesia, constipation and other dysfunctions...' Kolya the lab technician had begun reading the text aloud, but was now told by the others to pipe down.

'...Normalisation of breathing immediately begins to eliminate the symptoms indicated,' read Natalya, the sentence jumping out at her. At the foot of the second page, the handbook stated that normalisation of breathing almost completely prevents heart attack, stroke, the progression of atherosclerosis and emphysema. And a little further on, there appeared the first of three diagrams included in the handbook. It was headed 'Normal Breathing' and was the Lab staff's attempt at illustrating a healthy person's pattern of breathing. The ideal to

strive for. An undulating line with horizontal sections between the peaks showed that in a really healthy person, an inhalation lasts two to three seconds. The exhalation lasts a second longer. The automatic pause before the next inhalation generally corresponds to the length of the exhalation.

Laying the handbook aside for a moment, Natalya recalled the heated debates which had developed when the diagram was being worked on. Most of the staff thought it was vital to include a diagram of this sort. "If we're asking people to breathe normally, then we need to give them a benchmark," an agitated Dr Bubentsova had insisted. In the end, Buteyko had gone along with them, but he still voiced one doubt. He was completely behind the idea of including a benchmark for health, but was seriously concerned that patients might misinterpret it.

"Of course they should know about it," he said cautiously, "But I'm worried they may be so eager to count the seconds that they lose sight of the main object - reducing depth of breathing by means of relaxation."

Subsequent history proved him right. On numerous occasions they had to discourage people from putting too much emphasis on counting seconds for inhalation and exhalation. But you won't get very far in any science - least of all in medicine - without trial and error. It was a stage they had to go through.

At first, the lines 'the patient must have a sound knowledge of what normal breathing should be like and be able to measure their breathing rate and determine the length of time the breath is held' had seemed entirely uncontroversial. There followed a detailed explanation that each breath consists of an inhalation, an exhalation and a pause (as illustrated in Figure 1). Breathing exclusively through the nose was advocated, whether the subject was at rest or undertaking gentle physical activity. A detailed breakdown was given. First, a slow inhalation lasting 2-3 seconds and as shallow as possible (0.3-0.5 litres, almost imperceptible to an observer). This to be followed by a calm, passive, complete exhalation lasting 3-4 seconds. Then a pause of 3-4 seconds, a further inhalation, and so on.

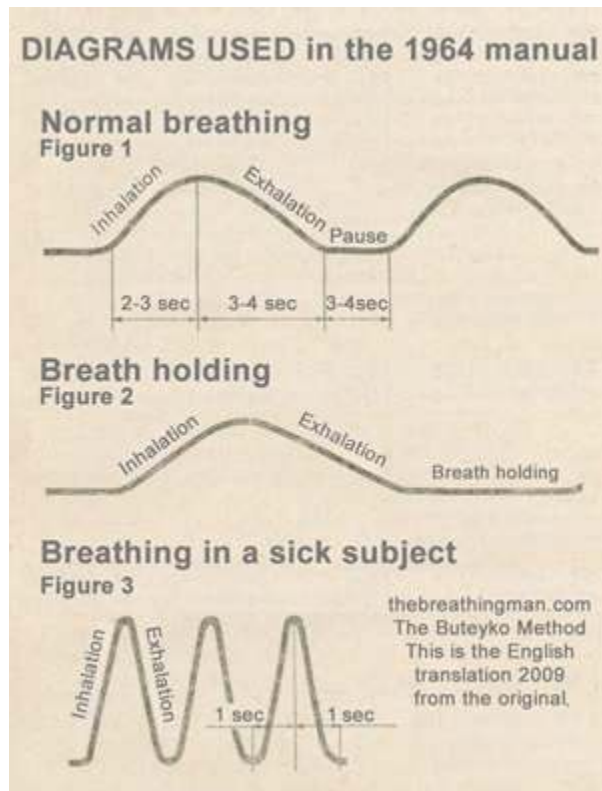
It was brought to the attention of the uninitiated reader that a healthy person's rate of breathing is 6-8 times per minute. Under these conditions, ventilation of the lungs does not exceed the required norm of 2-4 litres a minute, thus providing the level of 6.5% CO₂ within the pulmonary alveoli which is so vital for the body.

It seemed as if everything in this portion of the text had been tweaked to perfection, but subsequent experience showed that, while a patient must of course know how to count his own breaths per minute, on no account should he frequently resort to such counting - far less at every moment of his practice.

Experiments revealed that if a patient concentrated his attention on actually keeping count of his breaths, the result was even greater overbreathing. And that results not in a reduction in the respiration rate per minute, but in an increase!

But of course all these methodological amendments came later, with the benefit of experience. For the moment, in the run-up to the May holiday, the Laboratory was proudly celebrating a great achievement: its first officially published handbook.

The staff were still animatedly swapping reactions to particular passages, and in the corridor patients were already discussing how they could get their hands on one of the precious copies.



Natalya read through the section entitled '*How to correct (or normalise) breathing*' twice. After all, it was no time at all since Konstantin Buteyko's assistants had helped him polish the final version so painstakingly! '... For no less than three hours per day, either at rest or when exercising (walking or doing sport for example), patients should make a conscious effort to reduce the rate and depth of their inhalation, and also to develop a pause after a calm exhalation, thus endeavouring to bring their breathing closer to normal (Figure 1).'

This crucial section of the handbook continued: 'Further, no less than three times a day (in the morning, before

lunch, and before going to sleep) patients should perform three to five maximum breath-holds after exhaling, developing the breath holding time to 60 seconds or more. After each protracted holding of the breath, the patient should rest for one to two minutes, taking "shallow breaths".'

In this section too, not everything would remain unchanged. But the phrase 'patients should make a conscious effort to reduce the rate and depth of their inhalation' outlasted a great many later innovations.

Care had been taken to include contraindications in the handbook as well. These included the acute phase of myocardial infarction or stroke, terminal conditions, psychiatric disorders and chronic tonsillitis. However, it was noted in brackets that even these restrictions were not absolute.

Figures 2 and 3, placed one above the other, clearly illustrated the fact that a healthy person can hold their breath for at least 60 seconds after exhaling without any special effort (Figure 2), and that a sick person's breathing, even at rest, can be shown on a graph as a steep, one-second rising curve during inhalation followed by an equally steep one-second falling curve during

exhalation, immediately followed by another rise (Figure 3) with no horizontal plateau.

In a healthy person however (Figure 1), a smoothly rising curve during inhalation gives place to an even smoother descent during exhalation, then becomes a horizontal plateau which corresponds roughly to a three to four second automatic pause. The handbook concluded with a reminder of the need for medical supervision and a list of the most common mistakes patients made when mastering the Method.

Glancing out into the corridor for a moment, Natalya was immediately relieved of two of the copies Dr Buteyko had given her. The patients were in such an anxious frenzy to get their hands on them that they literally snatched them from her.

"Just you wait - they'll be fighting over them next..." said Buteyko, grinning at the shock on her face. "Anyway, cheer up!" he added quickly. "We published the handbook so people could read it. And people will help themselves - no surprises there. What's important is that they don't go making the mistakes we've pointed out," he said, opening the handbook at the penultimate page.

"We'll gather at my place for the Mayday festivities!" the Doctor announced, this time for everyone to hear. "The boat's ready - we just need to find another one and we can get the whole team over to the island. It's time to celebrate our victory," he went on, raising the small green book above his head. "Meet at my porch in an hour's time after the Mayday parade. Come suitably dressed!"

CHAPTER 18

An island feast. The best kind of potato. Buteyko's adventures among the academicians

It was about three o'clock when they landed on the island. May was unusually warm that year, and most of the Gulf of Ob was already clear of ice. Now, Dr Buteyko was not only a remarkable scholar, but also a very generous person. He would work 15-hour days and inspire his staff by his example. When he was minded to take a break, however, he would arrange things so that his closest comrades-in-arms could take time off with him - and they put the same energy and commitment into relaxing as they put into their work. No-one felt awkward in their company. The Doctor in no way made his authority felt. Unlike Professor Pomekhin, who would puff out his cheeks self-importantly, his very appearance warning his subordinates not to put a foot out of line. As Natalya Voronova and the rest of the island trippers gathered dry kindling for the fire, she remembered, amidst their loud chatter, how they had celebrated New Year the previous winter.

They had hung an enormous home-made newspaper on the wall of Dr Buteyko's living room. In the middle, the artists among them had drawn a silhouette of the Doctor, equipping him with an unusually large pair of glasses. Each lens contained small passport photos of all the staff who worked in the Lab and whose dynamic enthusiasm enabled it to survive despite the pressures it was under. Half the newspaper was taken up with handwritten tongue-in-cheek descriptions of the party guests' dreams (imaginary, of course) as the New Year approached. These dreams centred round one theme - with individual variations. Well, (they wrote), 1964 is here and Konstantin Buteyko has been awarded the Nobel Prize! As for his humble servants, they (and he, of course) have at long last been assigned a whole separate block - a sort of sanatorium - in place of the tiny cramped room that has been doing service as a lab. Which means their poor patients are no longer cooped up in tiny lodgings but luxuriate in comfortable single-occupancy rooms. They live like human beings and are medically supervised (in the Buteyko sense, of course) not just for a set number of minutes at their appointment, but round the clock.

Let's be clear: even in their dreams, the Doctor's colleagues didn't envisage hospital wards. Like Buteyko himself, they were opposed to bed-bound medical treatment. No, what they had in mind was a real sanatorium complex. Complete with sports halls, a wonderful clinic with all the latest equipment, a sauna and even a swimming pool.

When Buteyko finished reading their newspaper, far from putting on airs or setting himself above them (as mere mortals), he raised a glass of champagne and said quietly and simply, "My friends, this is all actually very important. God grant one day it comes true - even if only so far as a sanatorium's concerned..."

The Doctor was aware how little his colleagues earned. Often he would keep the greater part of his own salary in an unlocked desk drawer in his tiny office. He regularly told his colleagues that anyone who needed to could take money out

of the drawer until payday, leaving a note saying when they would repay it. Professor Pomekhin probably wouldn't have countenanced doing such a thing even in his worst nightmare - despite the fact that there was no comparison between his own income as Director and the money Buteyko earned as Head of Laboratory, kept ruthlessly low by Pomekhin. Buteyko shared his last kopeck, but not because he was rich. Rather, he was prepared to cut his own requirements to the minimum for the sake of his great project. It was a stance which impacted more forcefully than any rhetoric.

The fish soup they cooked up over the campfire of crackling twigs was excellent. But Dr Buteyko, the angler-in-chief (Kolya and Dima had helped with the catch) took just a taste of it. He preferred the potatoes they'd baked in the fire. After all, according to his theory, fish was even more harmful to health than meat. It should be said, however, that the author of the discovery of diseases of deep breathing had never stuck to any absolutely rigid rules about food. When he was in the company of others, Buteyko would eat anything. "What's important is that it doesn't become a habit," he liked to say on such occasions. Marina, however, who was sitting on a small tree-stump to the left of her husband and holding a camping bowl, tucked into enough soup for the two of them.

"Do ballerinas not worry about their waistlines?" This apparently innocent remark was delivered with a wide smile by round-faced Doctor Bubentsova - who hadn't managed to get rid of her own small paunch even using the Method.

"My dear Dr Bubentsova," replied Mrs Buteyko, casting an icy look at the undone lower buttons on the lightweight lilac jacket tightly encasing Dr Bubentsova's sloping shoulders, "It won't take me long in the gym to wash away this particular sin. You see, I can't afford to just rely on breathing..." She tailed off into a meaningful silence.

Everyone there knew perfectly well that anyone who practised the Method conscientiously would shed excess weight. Dr Bubentsova's undone buttons were a source of involuntary mirth to many of those sitting eating with her in the semicircle round the fire.

"Here's to our victory!" declared Kolya the lab technician, laying aside his aluminium soup bowl and setting about refilling their plastic beakers with champagne. He enjoyed playing the master of ceremonies. The Buteyko-ites took alcohol extremely rarely, but this was their preferred tippie. The Doctor was of the opinion that champagne was only half harmful, since it contained a great deal of CO₂...

"We've already toasted the holiday," said Kolya, handing a beaker to Natalya Voronova and almost spilling the foaming liquid over her dark-blue tracksuit-trouser knees. "Now here's to the publication of the official handbook and its long and successful career!" Everyone stretched out to clink glasses. Kolya - like an idiot - went so far as to suggest to Natalya's husband that they drink a 'Brüderschaft' toast with interlinked arms.

A light refreshing breeze gusted in off the sea. The springtime Siberian sun warmed them gently. As usual on such occasions, conversation gradually turned to general themes.

The bearded Dima, Kolya's inseparable workmate, spoke up, picking up a well-baked potato with a stick as he did so. "We'll leave the subject of women 'til later, of course..." Natalya choked on her soup and spluttered into her fist. "But meanwhile what about politics. National politics, maybe. Maybe with an agricultural slant," he added quickly to reassure the members of the fair sex who'd immediately pricked up their ears. He tossed back his greasy hair and held the charred, smoking potato up higher. "This potato, for example. A straightforward bit of nosh, or so you'd think, but it's actually getting quite rare."

Everyone stared at him in astonishment. "That's right," he continued unabashed, taking off his jacket and explaining what he meant. "You won't get your hands on a potato like this one just any old where. You see, it's not been done to death with chemicals! I bought it specially from a old woman I know at the market. She's got a small kitchen garden in Yeltsovka and so far she hasn't poisoned it with mineral fertilizers. The Central Committee of the Communist Party recently published a paper about an even greater increase in production of mineral fertilizers and chemicals for protecting plants." Dima peeled the steaming potato and salted it generously. "It said that any enterprises failing the country in this regard would be penalised..."

"What's your opinion, Dr Buteyko?" Dima winked at Kolya, who had been trying to get hold of the other half of the delicious potato on the quiet. The Doctor didn't need to be asked twice. Everyone knew he was a passionate champion of natural, unadulterated food. He took a sip from his mug of freshly-brewed tea and answered, "I'll tell you this much - for all this seven-year-plan envisages a significant increase in chemical production, no good at all will come of using non-organic fertilizers!" He blew on the hot drink. "My grandfather in the Ukraine, who'd no real education, never polluted his land with any chemicals at all. He used to tie the ripened grain into sheaves unthreshed, just as it was, and keep it like that in the barn. It would keep for years without getting eaten by maggots. Not like nowadays." The Doctor put his mug down on the grass. "The minute they've harvested, they get down to threshing and refining the grain. And it rots in the corn bins in the wink of an eye! First it gets poisoned with chemicals, then on top of that it gets stripped prematurely of its protective casing. What else can it do but rot away from sheer grief? That's why we don't have more in the way of bread reserves - because we don't know how to store the grain!" Buteyko tightened the tasselled ties on his red-fringed smock.

"Mark my words," he continued, pointing at Dima. "The time will come when people will be falling over themselves to get food grown by traders like that old granny you know. And since there won't be enough grannies to go round, our old friend shallow breathing will still be the best way of avoiding being done to death by chemicals. After all, it even counteracts poisoning." Buteyko screwed up his eyes, thinking. "The trouble is, the professors and academicians just cannot

understand its benefits, despite all my efforts to explain it to them. That's why they'll be the first to start dying off..."

"Dr Buteyko, tell us about the adventures you had when you went the rounds of the academicians," said Dr Bubentsova. Her jacket was feeling much too tight now, and she unbuttoned it completely. "It's such an interesting story!"

"You don't want to talk shop on a holiday, do you?" Buteyko replied, trying to get out of it. But they set about persuading him so hard he was soon forced to give in. "OK, have it your way," he said, finally capitulating. "I'll tell you, since you're so interested. But it wasn't just academicians I went to see - it was professors too." He massaged his leg, which had gone numb from sitting on a hard log for so long.

"I've been trailing round them for years now. Before I got my PhD and afterwards. Whenever I went on a research trip - to Moscow, maybe, or Leningrad - I'd call in on one of the leading lights in the field. I had every faith in real scholars. I've still a bit left even now," the Doctor said with ill-concealed bitterness. "At first I tried to do things via the Ministry of Health. To stick to protocol. With some difficulty I managed to get a letter prepared by our Institute asking for help in organising a trial of the Method. And in the end I was sent, with my letter, to see the Academic Secretary of Medical Institute No. 2." Buteyko pushed away a spruce twig which was poking him in the side. "The Secretary turned my letter this way and that. He twice read through all the proposals the Institute management had drawn up. He even put it up to the light to look through it... Checking in case it was some kind of forgery... 'The only thing I can do,' he said, 'is recommend you go and see Botchal.' He wrote me a note for him then and there. 'He's our asthma specialist,' he explained. 'Head of department. He's the one who holds the cards.' Well, I couldn't really object to that. What he said was true. Ilya Botchal was a renowned scholar. He'd published loads of stuff on pulmonary disease. Who better to see? So I took my note and went to the department. Now I'll be able to have a detailed discussion, I thought." The Doctor threw a twig onto the crackling fire.

"But Botchal didn't even bother getting up from behind his desk to greet me. He gestured offhandedly towards an armchair opposite him and looked at me with deep suspicion. 'So you're Buteyko. Yes... we've heard of you. We know a bit about you already round these parts. You use breathing to treat people, is that not it?' he said, rather sarcastically. But the odd thing was - he wasn't that healthy himself. When he was speaking, he made a whistling sound. Rumour had it he suffered from asthma, emphysema and pulmonary fibrosis." The Doctor tightly compressed his lips.

"Anyway, the point is our Method could have dealt with the whole range of his problems!" Buteyko touched the tip of his nose with two fingers. "I told him about the basic tenets of the Method. I explained our deep-breathing test could very rapidly provoke an asthma attack, and I offered to test everything out properly in their clinic.

“That’s what I said, but our conversation felt strained almost to breaking point. Botchal was looking at me in a way which was both exasperated and aloof, as if I was hopelessly insane.

“‘The thing is,’ he replied, ‘it really wouldn’t work here. We’re so busy. We’ve masses of patients... You go and test everything out again yourselves, in your own place. Investigate the whole thing more thoroughly. It seems to me you’re mistaken. There’s something not right about it...’

“‘Forgive me,’ I said, deciding to try one last argument, ‘I’ve heard you yourself aren’t well...’ ‘That’s right,’ he admitted readily, without hesitation, ‘but I’ll manage for myself for the moment. You may find it hard to believe, but I have my own ways of coping. Without any Method...’

“‘Allow me to cure you!’ I suggested. ‘Most grateful,’ he replied, ‘but I’m already coping. I’m used to it.’ So the man’s suffocating with asthma to this day. And he’s tormenting his patients with his ‘standard treatments’.

“After that, he sent me packing empty-handed. I felt that exasperated look of his boring into my back.”

Natalya Voronova leant over to her husband and whispered something in his ear. He nodded to show he’d understood, poured out some of the Doctor’s cold tea, and topped it up with water from the kettle.

“The next time I was in Moscow, I went to see another famous scholar,” continued Buteyko. “Academician Manokhin. One of the world’s foremost physiologists. Creator of various functional systems. My own scientific researches are based on some of them. I was hoping that surely this man would understand! I described in great detail cases of hypertension, angina and asthma which had been cured by the Method. I focused basically on hypertension and angina because he had hypertensive disease himself. I explained the mechanism of his condition as revealed by the Discovery of the diseases of deep breathing: hyperventilation, vascular spasm, CO₂ deficiency, hypoxia. In other words, the phenomena which occur in hypertensive patients.

“I also told him that I too had suffered from hypertension. Serious, malignant hypertension. I reminded him I’d studied under Academician Dariyev so I’d specialised in the field of hypertension, and that I was a clinician to boot. I went on to say I’d invented a Method to combat this insidious disease by reducing the depth of breathing...

“‘No, no, no!’ Manokhin wasn’t even going to let me finish. ‘You carry on with your experiments, and meanwhile I’ll take my American tablets...’ So that’s all he had to say as far as he himself was concerned.” The Doctor shifted from the edge of the log to come nearer the fire. “As for the Method, ‘You carry on testing it out,’ he said. ‘There’s something not right about it.’” Dima, who was sitting not far from the Doctor, gave an eloquent click of the tongue. “‘Check it out again - and more than just once. Because it can’t be true! It’s not right.’”

"I repeated what I'd said to Botchal: 'Allow me to cure you.' But 'No, no!...' came the reply." With some effort, Buteyko broke a long, thick branch and angrily threw it beyond the fire. "And you know what, the man died from a stroke soon after. To think he refused to listen to me!"

"Tell us about Academician Lapshin, Doctor." It was Dr Bubentsova again, although she was probably well acquainted with Buteyko's adventures amongst the academicians.

Buteyko had intended to say no more, but now resumed animatedly. "Oh, Igor Lapshin - yes, that took the biscuit. But let's finish the Manokhin story first. He didn't give me a proper hearing on that occasion. But he did put my report up for discussion at a conference for physiologists in Moscow. You'll never believe this, though." The Doctor slapped his knee. "He chickened out of attending the conference himself! It turned out someone had already been leaking much of what I was planning to Professor Pomekhin." Buteyko gave his wife a sidelong glance and she quickly turned away. "And Pomekhin had managed to really get the wind up Manokhin. He'd told him a schizophrenic was coming to see him with some crazy idea about the benefits of carbon dioxide and to be very wary of him."

At this, Marina pulled her red scarf down practically over her eyes. She obviously wasn't enjoying her husband's veiled hints.

"'Whatever you do, don't argue with him,' Pomekhin had told him." The Doctor was closely observing his wife, who half bowed her head. He pressed his advantage. "'They say he's dangerous. God knows, when he's over-excited he could cut your throat...'

"Well, poor Manokhin was so terrified he didn't dare be the one to oppose me at the conference - in case I clouted him right there on the podium," said Buteyko, smiling ruefully, his mood darkening. "Instead he put his pet pupil Vetlovsky into the ring to face me."

The Doctor's island listeners smiled. "What sort of 'pet pupil' gets sent to the slaughter?"

"They sacrificed him," answered Buteyko, taking a sip from his mug of tea, which had again gone cold. "But Vetlovsky hadn't a clue what I was talking about. That's why they'd put him up against me - so he'd just sweep the whole thing aside without even examining it. Shikhman was also in the hall - Pomekhin had dispatched him to the conference as a matter of urgency. Shikhman's the one who at one point was removed - not without some assistance from myself - from his post as head of the Physiological Laboratory because of his lack of diagnostic talent. He was busying himself among the rows of delegates, warning people not to believe the blatant nonsense I was presenting..." The Doctor spat disgustedly.

"Despite it all, I presented my full report to the physiologists in due order. They were really beginning to panic. It was impossible to object to what I said.

Everything seemed entirely legitimate! They couldn't even find any details to quibble over. Even Professor Vetlovsky (who was the departmental second-in-command) sensed he'd bungled his mission. He didn't even allow me any concluding remarks. 'Well, my friends, the whole thing's just incomprehensible from start to finish! It's un-be-lievable!'. He'd begun just spouting phrases to get shot of me. But the key thing was - no opinions were voiced, and no objections!" Buteyko got up from the log he'd been sitting on. "Because they hadn't expected to be so knocked off course. I'd shown them the graphs. I'd shown them the interrelationships. All the formulae for the diseases. The mathematical formulae showing how vascular spasms are related to CO₂ levels. Things they'd never seen before. The opposite of what they'd been taught!"

The Doctor waved a hand bitterly and made as if to go back to the fishing rods left on the shore, but Asya and Galya, two feisty lab technicians, caught him by the sleeve of his sailcloth jacket. "Sit down, Dr Buteyko! Sit down! Tell us some more about this medical mafia. You've no time when you're working. When else will we get the chance to hear it?"

Buteyko succumbed to Galya - a dark-eyed Ukrainian - and reluctantly sat down. "I can't even get to fish in peace with you lot around," he said, trying to laugh things off with a gentle reproach and casting a longing glance towards the lure of the smooth deep-blue water. "Well alright, listen some more, if you're so keen. I actually did the rounds of a great many professors and academicians. About twenty or so. I couldn't tell you about them all even if I took two days over it..."

"That's OK - we're in no hurry," said Galya, tossing her heavy braid over her shoulder.

"But in any case I never talk about all of them. I usually tell people about five: Botchal, Manokhin, Lapshin, Chugunov and General Sharatsky. The royal flush!" said the Doctor, spreading the fingers on his right hand. "Apart from Manokhin and Lapshin, who are dead now, they all work in different institutes. And for the most part in different specialisms. But they waged war on me as if by common consent." Frowning, Buteyko adjusted his glasses which were threatening to slip down. "And along with me, thousands of patients who still can't be treated with the Method thanks to those ace medical dive-bombers. Because getting the Discovery of the Diseases of Deep Breathing and the Volitional Elimination of Deep Breathing introduced into general practice depends on those bigshots and their ilk, more's the pity. They're at the controls..." Behind his glasses, the Doctor's pale grey-blue eyes narrowed to barely perceptible slits (perhaps in reaction to the sun's slanting rays).

"You mentioned Academician Lapshin," he said, turning to Dr Bubentsova, whose face was rosy from the fresh air. "Yes!" He became thoughtful for a moment. "Igor Lapshin is a shining example of how the self-appointed conservative establishment battles against the Method and damages itself in the process! If you remember, Svetlana, we began trialling the Method not for asthma but basically for hypertension and angina." Bubentsova nodded in agreement. "But at the moment they're trying to fight us with regard to asthma

only. They're not even taking the rest of it into account. And you and the lads here," he indicated Kolya and Dima who were sitting with their arms round each other, "well remember the furore that caused in the Lab."

"You're telling me!" Kolya took his prominently-veined arm away from Dima's neck. "Getting asthmatics to use shallow breathing is ten times harder than getting hypertensive patients to do it. Asthmatics are gasping for breath the whole time as it is. And then you go and tell them not to breathe!"

"Exactly, I was just coming to that," Buteyko chimed in eagerly. "We didn't switch from hypertensive patients to asthmatics right at the outset of our ambitious project for fun. It would have been much more sound (and significantly easier) to start by gathering a stack of positive data on hypertensive and angina patients. And only afterwards try conquering the higher peaks.

"But as we battled against hypertension and angina using the Method, Academician Lapshin and that whole school of thought - which dominates the entire country - stood resolutely in our way, an insurmountable obstacle." The Doctor's face darkened. "To them, we were interfering with their birthright! They set the bar so high I realised we'd have to try to clear a path for the Method using just asthmatics. It was a much more difficult enterprise, but on the other hand it did provide a very clear model. If a patient reduced his depth of breathing even the severest attack would simply disappear. It was plain for all to see. Hypertension on the other hand - well, just try demonstrating that as clearly! If the patient got a bit agitated (and of course immediately started overbreathing) his blood pressure would soar. Then try proving it was a stress reaction! Especially to people who don't want to see the evidence.

"Anyway, the asthma focus that was forced on us certainly gave us a lot of grief to begin with. There was a full-blown rebellion in the Lab: it's difficult making people breathe through their noses when they're used to gulping air in through their mouths like fish. Patients were fleeing our hallowed walls in terror." Buteyko's eyes grew rounder. "'They're all mad in there,' they said. 'Here we are - suffocating as it is - and they tell us to reduce our breathing...'

"They carried on running away until I got really angry and ordered that from then on every patient, without exception, was to be given a deep-breathing test at the outset!" He laughed loudly. "And when they'd had their fill of that wonderful experience they stopped taking us for lunatics. In fact, I had a bigger struggle with the staff," he continued, looking again at Dima and Kolya, and Dr Bubentsova who was sitting in front of them.

"You see, the Method was wonderfully suited to hypertension and angina. However, taking Lapshin's opposition as symptomatic, I was now absolutely sure that Western medicine - damn it to hell! - was in the grip of the dread hand of decay. As a rule," Buteyko's hand chopped down through the air, "all its leading specialists suffer from the same condition they're the illustrious experts in!

"Not so long ago Lapshin attended an international medical convention on combating, preventing and anticipating arteriosclerosis and heart attack. While he was there he was given an international 'Golden Stethoscope' award in his

capacity as the leading scholar in the field, renowned the world over for his diagnostic skill and his unsurpassed identification of the onset of heart attack. He went back Moscow. He bragged about his award. Shortly afterwards he died, in his own clinic, from his fifth unrecognised heart attack!!! Need I say more?" In Buteyko's voice evident sorrow at his colleague's untimely death mingled with real bitterness.

"So what's going on here? People - intelligent people - develop a chronic condition in their youth. For understandable reasons, they choose to go to medical school. They pay particular attention to studying the factors most closely associated with their own ailment. In time, they become leading lights in precisely that field. But of course, since they rely on the traditions of Western, primarily pills-and-injection medicine, which basically treats the result rather than the cause, they're unable to relieve their own suffering! That's why their unfortunate patients get equally 'successful' treatment in the course of their 'noble' enterprise...

"These people are ill themselves. They can't cure themselves. They gag anyone who strays from the traditional path even though they may actually be successfully combating the disease! And they themselves are dying of the very condition they've 'studied in depth,'" Buteyko concluded sarcastically.

"My meetings with Professor Chugunov and General Sharatsky in Leningrad merely confirmed me in that unhappy conclusion. But we'll leave that for later," said the Doctor, buttoning his jacket decisively. "I see the sun's already setting," he declared in a quite different tone. "Come on, folks, into the boats..."

CHAPTER 19

Khrushchev's political demise. Suicides of asthma patients in Professor Chugunov's care and the possibility of their prevention

The Buteyko-ites, absorbed in their fascinating scientific work, didn't generally take much interest in politics. But early in September 1964 old Mrs Grekhova sent the Doctor a copy of another rapturous letter she had written to Khrushchev insisting the Method be introduced nationwide without delay. This had led to much delighted discussion in the Lab - so when at the end of October Khrushchev was suddenly removed everyone was shaken.

... "Why's that portrait of Khrushchev still up there?! The man was just a cult leader - he kept seven cars for his private use!" Galya the lab assistant tugged at her heavy plait of dark hair in dismay and confusion as she relayed to her colleagues the way the art teacher at her little sister's school had encouraged his pupils to react to the news. "Apparently he started sounding off about the portrait the minute he came in the room. He used to be in the army, and he was seething with rage. The kids - fifth-formers - stampeded out from behind their desks and started throwing pencils and rubbers at the portrait. Trying to get him in the eye." Galya covered her flushed cheeks with her hands. "It's terrible. Getting secondary school kids to attack a portrait of the head of government! Even if he is no longer in power. And what's this about a cult suddenly? The paper says in black and white 'released from his duties due to impending retirement'. What on earth's going on? It was Khrushchev who exposed Stalin. But now look what they're doing to him..."

While Galya's colleagues tried to calm her down, Buteyko discreetly signalled Natalya Voronova into his office. He drew the curtain tight so as to screen the office completely from the Lab and made sure the flimsy plywood door was properly closed.

"Well," he said, "events are forcing our hand. Mrs Grekhova writing to Khrushchev about the Method was all to the good," he extracted from his desk drawer a copy of the worthy former schoolmistress's latest letter, "but as we know, Khrushchev has been removed..." Noticing that his hands had clenched into white-knuckled fists, he relaxed his fingers. For him the name Khrushchev spoke of his native Ukraine. There was a long, heavy pause before he continued, "Still, as the saying goes, God helps those who help themselves. On our Mayday trip I wasn't rambling on about visiting the academicians just for the sake of it. Pomekhin's cronies are still secretly condemning the Method as harmful and gradually that message is filtering through to high places." The Doctor lowered his voice slightly. "You see, I have former patients in those circles who keep me informed of the threat..."

"Help from high-ranking Party leaders wouldn't have gone amiss, of course. But there's never been any sign of it. And now the top brass probably won't have any truck with us at all. We need to take action ourselves, right away - observing due protocol, naturally." Buteyko tucked one finger under the collar of the knitted black jumper visible under the V-neck of his lab coat. "Before we get

completely buried in the general uproar created by all this mess... Immediately after New Year, as soon as everything's ready, you'll be off to Leningrad on a special mission."

Natalya's mouth opened in astonishment.

"Yes - I'm entrusting this to you!" The Doctor was using the familiar form of 'you' - he quite quickly moved to this intimate form of address with colleagues he felt an affinity with. "You're a medical professional, a trainer and a sportswoman. Take your courage in both hands. I'm sending you to Professor Chugunov - the one I didn't have time to finish telling you about. Some of the staff have heard about him before - now it's your turn to get the lowdown." He glanced at Natalya's dainty watch.

"Chugunov isn't just a professor - he's also a full member of the Academy of Medical Sciences, as you probably know. He's head of department at the Institute of Pulmonology. People with respiratory disease - like our asthmatics - are his daily bread, his territory... Now, if we could conduct a successful preliminary trial of the Method (without a Ministry of Health directive for the moment) in his hospital on his patients, and get him to draw the right conclusion, we'd be halfway to victory!" Buteyko looked intently at Natalya, sitting bolt upright on her hard chair. "If we could manage that, we wouldn't be far off getting an official trial of the Method, approved by the Ministry."

Natalya, however, was conscious of the weight of responsibility he was placing on her. She made up her mind to voice an objection. "But why me?" she asked. "We've got colleagues who are more experienced. Dr Bubentsova, for example - she's worked in the Lab longer than me. She might even be offended..."

"She won't be offended," the Doctor responded immediately and with conviction. "Dr Bubentsova will not be offended. As you know, we're all doing our utmost at the moment to collect the data for her PhD dissertation..."

"All the more reason, then," said Natalya. Her eyes, with their long, heavy lashes, had widened in bewilderment.

"Nonsense!" the Doctor cut in sharply. "Her dissertation is on hypertension, whereas Chugunov deals with asthmatics. But that's not the point. Of course you'll find a wide range of patients there. The point is that running even a preliminary trial presents a considerable risk. It's obvious they'll do everything they can to make it fail. Do you think Dr Bubentsova likes living dangerously?"

Natalya averted her eyes. Svetlana Bubentsova's extreme caution and exaggerated prudence were common knowledge.

"Precisely!" said Buteyko, lowering his eyes too. "So like it or not, it's not just the old-timers who have to go into battle..." Both were silent for a moment. "Stepan Chugunov is the fortress we simply have to take by storm. Academicians Botchal and Manokhin have just brushed us aside - Chugunov is the last bastion. We've no other way of getting our foot in the door, as far as I can see.

"I've already been to see him twice. I just went to his office and introduced myself. I told him we'd had quite a bit of success treating asthmatics in our Lab here." A sly smirk appeared on Buteyko's face. "Now here's the sad bit. To look at, Chugunov's of medium height and rather puffy. And he always has a blocked-up nose... In fact, for years now he's been trying and failing to cure himself of asthma...! Now, imagine how galling that is for him! There he is, full member of the Academy of Sciences, a Professor. A big name nationally. And he can't do a thing to help himself. And then I turn up, an unknown upstart from the wilds of Ukraine..."

"Anyway, eventually the great man muttered, 'Alright then, explain your Method to me...' So I briefly outlined our theory. He then called some other people into his office and it turned into a sort of seminar.

"How did they react?" Natalya pulled her lab coat down over one smooth knee which had been slightly exposed.

"They were flabbergasted, of course. But in fact they hadn't really understood any of it! As well as what I said, I gave them our handbook - a very early handwritten draft version. I did my best to spoon-feed them. And I thought Chugunov might be giving ground a bit, because he promised to send his senior lecturer to our Lab to share experiences... In other words, he didn't reject me out of hand.

"But I waited a year and no-one came. So I went back to Leningrad. Back to Chugunov's office. I greeted him, asked how things were going and so on, and then I put it to him directly. 'That person you were going to send has never come...'

"Chugunov blew his nose on his handkerchief. He swallowed some of his anti-asthma powders and moved some papers around on his desk. 'Unfortunately we're incredibly busy,' he said. Once again I was getting the Botchal-Manokhin treatment. They've all got the same song-sheet. Chugunov went on, 'We've such plans. Such plans! And no time to get anything done... Not a thing.' He got his handkerchief out again - his nose was permanently blocked. 'And what's more...' his gaze was trained more and more intently on the table, 'to be honest, I've doubts about your theory.' Then suddenly he announced, 'You'd do better to test my powders out in your Laboratory!' He pulled several little sachets from a pocket and held them out to me. 'You've got first-class apparatus there - use it to check out how effective my powders are...'

Buteyko slammed his hand down on the table top. "I was speechless. His 'famous' powders contained absolutely standard aspirin, pyramidon² and ephedrine mixed together with some disgusting sludge or other. The idea of testing this rubbish, which hadn't even cured its own inventor, on our combine-complexator..." The Doctor was overtaken by nervous laughter. "Thank you,

² Aminophenazone

Professor Chugunov,' I said. 'But we'll manage without the powders for the moment...'

"At that point an elderly assistant doctor suddenly ran in, all dishevelled, and shouted, 'Dr Chugunov! Professor - It's Nadya Serganova!' She gestured towards somewhere outside the office. 'Serganova - acute asthma. You know the one. She's been critical for a whole month and we can't stop the attack. She's been saying today that if we don't stop it by this evening she'll hang herself! Her friends have been on the phone to her family...'

"Chugunov leapt up from his desk. He was white as a sheet. He glared furiously at his assistant - how dare she do wash their dirty laundry in front of a stranger? His brow was positively knitted in agony," Buteyko was giving a lively impression of how upset Chugunov had been, "and I realised I was witness to a tragic outcome that had become far too common.

"For all Chugunov's high ranking in the medical world, the mortality rate among his patients hugely exceeded the generally accepted norms. The asthmatics who came to him for treatment (often from far-flung places) got up to all sorts: they took poison, they hanged themselves - whatever they fancied. There were endless mysterious suicides..." Buteyko caught Natalya's sceptical look. "Well, not by the barrel-load, of course. But Chugunov did have about three times the average generally accepted figures. And no-one could understand why. That death-row of his was the talk of the town. I'd tried to fathom it the first time I went to see him - just to satisfy my own curiosity. But my visit was too short. The second time, however, I'd plenty of time to go round the hospital waiting rooms and then what all did I not see or hear..."

"In fact the whole thing was quite simple. Almost banal." The Doctor picked up a pen and drew a small circle on a piece of paper. "Imagine this is Joe, a severe asthmatic, living somewhere in the far reaches of the country, thousands of kilometres from Leningrad. He's been suffocating with attacks for years. One day he hears tell of the celebrated Professor Chugunov. So the poor devil writes to him, rings him up and gets himself on the waiting list. Where he stays for about five years. But finally - hallelujah!" The Doctor's head jerked up suddenly making his white cap fall on the floor. "A bed's available at last." He smoothed his hair back down and retrieved the cap. "So he arrives in Leningrad." Buteyko drew a line with an arrow from the circle, then a rectangle at the end. "Joe patient is ecstatic, exultant. 'This is it - I'm finally going to get proper treatment!'

"He hasn't slept properly for years. He's been suffocating with spasms, coughing up his lungs. He's been round every doctor near and far. There's not a medicine he hasn't poisoned himself with. To no avail. But Chugunov! The man's a national celebrity. Joe has salvation in his sights at last.

"Joe lies down in his hospital bed," the Doctor leant one shoulder on the table and rested his head on his hands, "and waits for the ward-round. He's trembling like a leaf, he's so excited. When Professor Chugunov examines him, he'll have some wisdom for him, for sure..."

Natalya could sense something unexpected was coming and was fidgeting impatiently on her chair.

"The Professor arrives." Buteyko's voice and face took on a childlike quality. "He listens to Joe.... And all the time he's WHISTLING like an asthmatic!!!" The Doctor clapped his hands - there was a wicked sparkle in his eyes. "Joe smells a rat - he of all people knows what it means if you whistle when you breathe. So when the great man has gone, he asks his neighbours on the ward, 'What's the matter with him?' The response? 'He suffers from asthma!'"

Natalya clamped a hand over her mouth so as not to laugh.

"After that, Joe quietly takes his towel from under his pillow and goes into the garden. Hup - he throws it over a branch," Buteyko made the shape of a noose, "and hangs himself."

Tears of mirth had escaped Natalya's trembling eyelashes.

"He'd nowhere left to turn. He'd come to the Professor for treatment, and the Professor was an asthmatic himself!" Glancing at Natalya, Buteyko began to let down his guard. "Western medicine is idiotic - some things about it are just staggering," he said, before repeating an angry conclusion now familiar to her.

"All the leading specialists in particular conditions actually suffer from the same condition themselves! Which just goes to show how fatuous their 'science' is." Suddenly he sprang up to check the lie of the land, then returned to his seat: these were harsh words, an insult to the medical profession. But in this particular context, Natalya Voronova could only agree.

"Anyway, the elderly assistant was standing there in the doorway, hands raised helplessly," continued Buteyko, returning to the incident he had been describing. "Chugunov's right eye had begun twitching. To have me witness this embarrassment...! 'They send complete neurotics for treatment here,' he mumbled. 'They should really be in the psychiatric hospital...'"

"Have you tried my Method?" I asked, turning to the assistant who was now clutching at her chest. I seemed to remember she'd been there with the others on my last visit, in that very same office, listening to my presentation. 'Good idea!' Chugunov was suddenly beaming. 'Nina, let Dr Buteyko try his way of doing things. Here, Doctor, take my lab coat.'

"He slung his snow-white battle-gear round my shoulders. Aha, I thought. He's decided to call my bluff! He's sure nothing will come of anything I do. Ok then, bring it on... And off we went to see Nadya Serganova on the ward.

"The corridors are wide and high. Spacious. Everything's solid, good-quality. Not a bit like the poky little places you find in the provinces. On our way we passed through the staff room. Two doctors were sitting on a small leather sofa having a quiet chat. One of them turned towards the assistant doctor and called after us,

'Nina, is that a relative you're taking to see Nadya Serganova?' Realising she hadn't heard him, he whispered to his neighbour: "Probably going to say goodbye to Serganova. She says she'll kill herself today...'

Natalya rubbed her temples with her fingertips.

"We went into the ward. It was the most horrific scene. A well-built woman of about 30 was writhing on all fours on the bed. Later I found out that Serganova had been a sportswoman before she got ill. She was gulping down air, coughing and wheezing. Her lips were blue. Standing beside her was a young physiotherapist, calmly giving instructions, 'Bre-athe in really de-ep-ly. Bre-athe out! Bre-athe in really de-ep-ly. Bre-athe out!' The physio was alternately raising and lowering her well-manicured hands. I immediately thought of Professor Gul and his experiments. Maybe you've heard of him. He used to hypnotise asthma patients and then tell them to 'breathe deeply and evenly'... Meanwhile, the patients would be going blue, and from time to time someone would die. The deaths would be recorded as unavoidable ...

"To Nadya Serganova's left, at the physio's side, a nurse was standing with a syringe at the ready. She was apparently waiting to be told whether or not to give Serganova an injection of hellish brew."

"Hellish brew?" Natalya's eyebrows rose quizzically.

"Yes, hellish - that's the word for it," chuckled Buteyko. "That's what the hospital doctors call it among themselves. Although the physio was telling Nadya to 'breathe in more deeply' she obviously wasn't very sure her advice would work...

"By this time Nadya was whistling when she breathed, 'Akh, a-a-akh, a...-a-akh!' That meant that at the last possible moment they would give her a mammoth injection. Then the breathing curve would go any which way." The Doctor waved his hand to right and left. "This way, that way. That's all it can do. You see, along with all the other rubbish in the hellish brew (like, for example, the liquid form of Chugunov's wretched powders) it contains narcotics." Buteyko lowered his voice a fraction. "And as we know, the Ministry of Health forbids the use of narcotics to treat asthma - bar the most exceptional of cases. At one time narcotics were used quite widely in the treatment of asthma, and there were a considerable number of deaths as a result. So the Ministry issued a special directive... But Chugunov was prepared to risk anything. Practically every incident on his patch involved 'exceptional cases'. What else could he do, if his powder couldn't save folk like Nadya Serganova? Narcotics do give temporary relief, provided they don't kill you..."

Natalya squeezed her temples more tightly.

"You see, Chugunov's one of the old school. And in the past, particularly in tsarist times, doctors thought narcotics were the best treatment for asthma. That's what the old textbooks said. But the thing was, no-one knew why they worked." Buteyko held the pause. "Nowadays of course it's obvious: narcotics suppress

breathing. In other words, they reduce breathing and so relieve attacks. The Discovery of hyperventilation-induced diseases gave us the answer to the puzzle - but we're still the only ones who know about it! To this day! Mind you, narcotics are a two-edged sword. If you inject a small dose, then because they suppress breathing they can help - provided it's not overdone. But in Chugunov's hospital they were giving a full dose. Enough to fell an ox! And narcotic-induced suppression of breathing frequently leads to paralysis of the breathing centre - which is fatal...

"So using narcotics is doubly harmful. First there's the harm done by the narcotic itself, plus there's the further danger of a fatal outcome. It might be Ok if there was no other way. But our Method's more effective than any narcotic and completely harmless!"

"So you went up to Nadya Serganova - and then what?" Natalya pressed the Doctor. She was burning with impatience.

"I told her, 'Shut your mouth. Don't breathe! You're having an attack because you're breathing deeply.'

"She shut her mouth, probably more from fright than anything else. But her body was convulsing on the bed." Buteyko clasped his hands to his chest and eased his shoulders. "So I said to her, 'Stay like that, stay like that...!'" With his right hand he brushed aside some invisible obstacle. "'Don't be frightened. Reduce your breathing! Reduce it even more.'" The Doctor made as if he was listening to the patient's breathing.

"Two minutes passed. She sat up. She opened her eyes wide. Green, green eyes. She raised her head. 'The attack's gone!' she said. The ridiculous physiotherapist stopped chanting her idiotic 'breathe more deeply'... And when the nurse realised the attack had gone she threw down the syringe and rushed off. I found out later that in the next- but-one ward another patient - Anya Ivanova - was pegging out in even greater agony than Nadya Serganova. The nurse had had a syringe of hellish brew ready for each of them, not knowing who would need it first. She ran into Anya's ward yelling like crazy, 'A miracle! Listen everyone - a real miracle! Some Buteyko guy stopped Nadya Serganova's attack!'" A smile lit up Buteyko's face. "I had actually told them that I was Dr Buteyko, from Siberia and so on..."

"Then lots of people came running into the ward: doctors, assistants, students - everyone who'd been nearby. 'How are you feeling?' I asked Nadya. 'Well!' she replied. 'OK... now breathe a bit more deeply!' I said, watching the physiotherapist out the corner of my eye.

"Nadya took two or three deep breaths in. And promptly went back into spasm and had an attack. 'Reduce your breathing!' I told her. She was finding it difficult. So I took hold of her and gently compressed her ribcage to limit the depth of her breathing. Like this..." He brought one hand to his chest. "'Reduce your breathing...' I told her. And... the attack stopped. For all to see!"

Natalya Voronova clapped her hands in a sudden rush of emotion. She leant her head to one side, allowing an unruly lock of hair to escape from beneath her starched cap.

“Now, here’s a question for you. Do you think those people watching understood what had happened? No, not a whit. A few weeks later I got a letter from a doctor who’d witnessed the whole scene. He’d been doing specialist training in asthma under Chugunov and seen Serganova’s attack stop with his own eyes. What’s more, I’d gone on to explain the whole thing. But guess what he ended up writing: ‘Dear Doctor Buteyko, Please send me details of the method whereby a *single*’” Buteyko stressed the word, “‘application of pressure to the ribcage should result in the relief of a severe asthmatic attack...’

“Ha-ha, ha-ha-ha, what an idiot!” Buteyko took his handkerchief and wiped tears of laughter from his eyes. “Oh, it’s just too much! Ha-ha-ha...” He was almost choking. “I hope you appreciate how quick on the uptake these medics are! ‘How to stop an asthma attack by a single application of pressure to the side...’ He-he, ha-ha-ha... Oh dear...”

“The fact that you have to reduce depth of breathing, and the existence of the Discovery of the diseases of deep breathing - all that had just fallen on deaf ears. A single application of pressure to the side and Bob’s your uncle!” Natalya had stopped holding back and was also laughing wholeheartedly.

“Nadya’s attack had completely gone. And her pulse rate slowed immediately. Everything went back to normal. ‘Good, good...’ I told her. But I noticed folk were sitting there as if they’d seen a ghost. They looked utterly amazed. Particularly the students.

“At that point the assistant doctor in charge of the wretched patient in the other ward came running in. She’d been elsewhere, but when she heard about the ‘miracle’ she dropped everything and rushed to see. ‘Doctor Buteyko!’ she said, almost going down on her knees. She clutched my hand - her fingers were burning. ‘I’ve a patient who’s dying - Anya Ivanova. I beg of you - help me stop her attack!’

“But I didn’t know who this Anya Ivanova was,” continued the Doctor, a harsh note in his voice. “They might just be wanting to play some sort of dirty trick on me... Produce a stooge who’d been told to fake an attack. So you’d never get her out of it no matter how hard you tried. I turned to Nadya. ‘Do you know this Anya Ivanova?’ ‘Yes, I do!’ she assured me. ‘She’s seriously ill, like me. She and I agreed to kill ourselves if they didn’t stop our attacks. We’d decided to hang ourselves together. Or steal some sleeping tablets. A big dose. Take them during the night...’ She was so agitated that a birthmark on her cheek was trembling.

“‘In that case, get up and we’ll go and see her,’ I said. ‘You’re joking!’ The birthmark stopped trembling. ‘If I so much as put a foot on the floor I’ll have an attack on the spot!’ There was real terror in her voice. ‘You won’t!’ I said. ‘You won’t, just don’t breathe deeply.’ I supported her with my arm a little below the

ribcage. And guess what?" The Doctor glanced jovially at Natalya. "She bent down. Put on her slippers... No attack!

"'OK, let's go,' I said, nudging her along gently. She took two steps. No attack! Before, two steps would have been more than enough to start an attack. But not now. Ha-ha-ha. You see? I took her by the arm and led her out into the corridor. 'Come on,' I said, 'let's go to the ward - next but one, isn't it?'" A look of cunning had appeared in Buteyko's light grey-blue eyes. "I sneaked a look - she'd begun to walk. She was going along the corridor like this..." He rocked his hands from side to side.

"A doctor stopped dead beside us. It was the one who'd been telling his colleague that I was no doubt a relative going to say my last goodbyes to Nadya Serganova. A bald man. I remembered him clearly. He turned out to be head of the section Nadya was in. All of a sudden he'd seen us walking calmly down the corridor having a quiet chat... He was obviously so flabbergasted he couldn't believe his eyes. They were out on stalks." Buteyko opened his own eyes wide. "It's hard to describe the fear in them. As if he'd seen the devil. As I watched he began to pinch himself really vigorously. Was it just a dream?! That bed-ridden, terminally ill woman... was striding down the corridor with her relative..!

"I walked past him and almost took fright myself, he looked so awful. Later on it came to me why he looked like that. Ha-ha-ha..." Buteyko was overtaken again by bursts of laughter. "Anyway, Nadya and I went into the ward in question. As many as eight asthma patients were crammed into it. Anya Ivanova was on the bed on the left, squatting down. White as a sheet and exhausted. She was gasping for breath, 'Ee-eh-gkhh, ee-eh-gkhh!'

"A whole retinue of doctors, assistant doctors and patients crowded into the ward behind us. To see what would happen this time." Buteyko moistened his dry lips. "I stopped Anya's attack. I did a repeat performance of everything they'd seen before. What's more, just seeing Nadya free of the appalling torment of an attack had taken Anya's breath clean away. Which suited me fine, of course.

"I let her recover a bit. Get her bearings. Do up her dressing gown. There were other people there, after all. The buttons wouldn't obey her fingers. 'Now breathe more deeply!' I ordered. Again I summoned up an attack for everyone to see and then once again (!) I stopped it by reducing the depth of breathing. Anya was in tears, kissing my hand. The ward was a-buzz. I told Anya and Nadya, 'I'll be here another three days. I'll monitor you. Just be sure to practise properly!' I explained the Method to them, with everyone else listening. Then I reminded them to measure their pulse and their maximum pause. I also measured each woman's pulse and maximum pause for them. In other words I showed them everything.

"I looked in briefly on Chugunov, to tell him the results of what I'd done. And I went to see Nadya and Anya again - made some suggestions. Chugunov was well and truly cornered by this unexpected turn of events. He promised (through

gritted teeth) to call a meeting of the Scientific Council in three days' time so I could present the patients I'd cured." A shadow passed across the Doctor's face.

"Naturally, I didn't abandon Nadya and Anya. I went to see them regularly. Gave them advice. I could see Chugunov thought the Method was bound to crack in the face of such severe cases - that's what he was hoping. Ok, it had managed to stop an attack temporarily - but the effect wouldn't last long! Nadya and Anya had had good reason to be about to hang themselves... How on earth could breathing help in cases like theirs? What he didn't understand, like many academics (and I often make this point) is that the more severe the case, the more successful treatment with the Volitional Elimination of Deep Breathing will be. A critically ill patient has no other option! He's already tried everything. So he'll put in the maximum effort and get the maximum effect. Anya and Nadya reduced their depth of breathing so conscientiously that cleansing processes started as early as Day Two." Natalya looked delighted at this.

"Yes, that's right," the Doctor confirmed. "In the handbook we took the line of caution. We said that in some severe cases, the overall picture will be one of gradual improvement but some symptoms may temporarily recur in the second to eighth week or later. Such recurrences are part of the healing process. That's what we said - but actually there's no hard and fast rule about it. In the Lab - as you can testify - we've seen cases where cleansing reactions have started just a few hours after breath training gets underway. It all depends how intensively people practise and on the severity of their condition." Buteyko found the passage he'd been quoting in the handbook and marked it with his fingernail. He leant back a little, making himself more comfortable. "Cleansing reactions are an interesting phenomenon. For ten years after the Discovery of the diseases of deep breathing I myself knew nothing about what we now call the cleansing processes. So I didn't mention them anywhere. Of course patients had no knowledge of them either - and things generally went without a hitch. No-one was scared of anything. People just thought, 'I've got a bit of an upset stomach'. Or maybe a patient had to empty his bowels an extra time. Maybe someone's urine was a different colour. So what? People might have a bit more saliva. Or a period of disrupted sleep.

"I didn't mention it and no-one was scared. Patients didn't panic. But when I got to the stage of setting out the whole theory and substantiating it - well at that point I'd no choice but to flag it up. And here's the paradox." Buteyko ruffled his light brown hair. "That extra knowledge about the recovery process seemed to be bad for the patients..!"

Natalya looked up enquiringly.

"They began to get scared. 'Might I really get blood in my urine?' 'Will I not choke on the saliva?!' 'Will it not do me harm?' And so it went. Question after question. And no matter what explanations I gave, subconsciously people felt anxious. If they got stropky, they might even start telling their trainer they should be having the blessed saliva and the head colds! Why were they so long in

coming? But when people are embarking on treatment, the cleansing reactions are a real psychological hurdle. Some patients - the ones who still have a choice - may even reject the Method because of them.

"The cleansing reactions are actually quite simple. Deep breathing disrupts the metabolic process in the cells, starving them of oxygen. The body then excretes beneficial salts - sodium, potassium, magnesium, calcium, phosphorus - as it compensates for the increasingly alkaline environment. You'll know how that movement towards alkalinity occurs, I'm sure." The Doctor wrote down the chemical formula on a piece of paper and moved it over to Natalya.

"Carbon dioxide dissolved in water is exactly the same thing as carbonic acid." He jabbed a finger at the formula he had written. "And since deep breathing brings about a deficiency of carbon dioxide in the body, the inner environment naturally becomes more alkaline. Deep breathing distorts immune reactions since it leads to an accumulation in the body of partially oxidised metabolic compounds that cause allergic reactions when they come into contact with external allergens. When deep breathing is eliminated using the Method, the metabolic processes are normalised. The excretory organs work more efficiently, and that's what leads to the body cleansing itself. In the majority of patients, cleansing reactions are observed through all possible channels: salivation increases, as does lachrymation and sweating; people experience head colds, the elimination of phlegm and so on. It's a very beneficial process. But unfortunately it can be a bit painful. It's actually like the patient's illness re-run backwards. The fainthearted can take fright. But cleansings don't occur without any let-up - they happen when the maximum pause reaches the 10, 20, 40 and 60-second thresholds. And it's important that these thresholds do get reached! It takes some people months to get there. Anya and Nadya experienced their first cleansing on Day Two. On Day Three, to their doctors' astonishment, they were even able to take a shower. They had a steam bath too, before the meeting of the Scientific Council. There they were, all clean and spruce, for Chugunov to feast his pale eyes on! And there was I, presenting these two patients I'd cured to the Council - but I was weighed down by thoughts I couldn't get out of my head.

"You see, I'd realised why their asthma patients had the highest suicide rate... Over the three days I'd spent with Nadya and Anya and the other patients on the ward I'd come to understand the whole thing. What else could they do but hang themselves, given that when the head doctor did his rounds he whistled as he breathed?"

"The members of the Scientific Council couldn't take their eyes off Anya and Nadya. Nor could anyone else. 'It's a miracle - some incredible sort of hypnosis!' I heard people say behind me... So - they'd decided it was a miracle. Note that. A miracle, rather than a scientific fact backed up by repeated investigations in our Lab. Rather than clear proof of the effectiveness of the VEDB. They took it for God knows what kind of miraculous cure... Probably, said they, of the temporary psycho-hypnotic sort..."

"Scoundrels, the lot of them!" Natalya blurted out with characteristic bluntness. She was outraged. "How did the rank-and-file doctors react? And the patients?" "The doctors just stared at their boss, terrified. Cabbages! No chance of them questioning authority! But after I'd gone, the patients staged an outright revolt against Chugunov and his department. 'Use the Buteyko Method to treat us all, whatever our symptoms!' they demanded. The poor blighters were fed up hanging themselves with their towels in the garden. They agreed some of them would go to see Chugunov... They stated their case. Chugunov - full member of the Academy of Sciences, remember! - practically had a stroke on the spot. 'What?! This is mutiny!! We're closing for maintenance work! Discharge anyone who's got any complaints - every last one of them!...'"

For a brief moment an oppressive silence hung over Buteyko's tiny office. "So they turfed all those seriously ill patients out onto the street. And when they reopened once the supposedly urgent maintenance work was complete they'd recruited a whole new staff. So they could strangle any hint of dissent at birth. People choosing their own method of treatment?! - whatever next?! There's one treatment and one treatment only - Chugunov powders, and injections of hellish brew!" - Buteyko's voice was full of jaundiced irony. "So that was that..."

"Mind you, Chugunov didn't forget your humble servant. Hot on my heels he sent a secret letter to the Siberian Branch of the Academy of Sciences, addressed to the Chair of the Presidium, which went straight to Professor Pomekhin. 'We had a schizophrenic of yours here,' he said. 'With a crazy idea which runs totally against everything the whole world knows about breathing. It must be bad enough putting up with him up there in your Siberian forests,' he went on, 'but it seems mighty odd that a pseudo-scientist like that gets the chance to roam the country spouting his lunacy.'" Buteyko lowered his eyes.

"And I suppose Chugunov's the real scientist - since he's wheezing with asthma," Natalya commented indignantly.

"Yes... It's no coincidence his name means pig-iron - he shot me in the back with an iron bullet," said a thoughtful and dejected Buteyko. "So much for mutual understanding in the scientific community. They'll boil you alive rather than give way.

"But there's no way we can bypass top-flight specialists like Chugunov. They're precisely the people we have to prove our case to - no getting away from that. That's why I've explained everything to you in such detail."

The Doctor glanced at the clock. It was time for the lunch break.

"So, get yourself ready! It's you that'll have to go. It may take a month of working with them - or even two - but you'll prove it to them!" He raised his voice.

"You've got to prove it: prove the clear superiority of volitional elimination of deep breathing." He began tugging at the hem of his lab coat like a child in a huff. "I've already tried twice, as you know. How much clearer can I make

things? And anyway I can't leave the Lab for that length of time. Plus, Chugunov sees me as a rival. There's an element of the personal as well. Whereas..."he stroked Natalya's hand cautiously, "there's no way you're a rival to him. You're young, attractive, a novice so to speak. You won't be intimidated?"

Natalya Voronova had tensed up inside. At the start of the conversation she had still had reservations about her inexperience, but now she was clear it wasn't length of service that was important to the Doctor. He needed someone assertive and resilient for this assignment. Someone assertive not just in the medical domain... She felt her athlete's competitiveness - half-forgotten - come to the fore. Evidently she'd have to take part in this other kind of contest too. A top athlete doesn't shy away from a difficult challenge.

"Oh no, I won't be intimidated," she said, squeezing Buteyko's hand firmly, "Leave that to our enemies. After all, this isn't a victory for you and me. It's a victory thousands of Anya's and Nadya's are just crying out for."

"You never said a truer word," replied the Doctor, cheered by her support and beginning to smile. "Still, for the moment we mustn't even dream of total victory. You're embarking on what we'll call a preliminary, not strictly official trial of the Method. Only a successful official trial commissioned and ratified by the Ministry of Health will bring us final victory and get the Method recognised... But to get to that point, semi-official working attempts like this are absolutely vital." Buteyko let go his hold on the hem of his lab coat, which fell back down into place. "Even attempts we undertake unilaterally. On our own initiative. Defying the Chugunovs of this world and their ill intent! We're going to latch onto that man and not let go. No matter what he tries - including shooting me in the back... What else can we do?" Buteyko took off his glasses and gazed, it seemed to Natalya, into her very soul. "We're not the timid sort. Let's hope that bullet boomerangs back on them..."

Natalya Voronova walked to lunch along asphalt paths already strewn with dry leaves. She amused herself by trying to catch the rays of a sun misted over by cloud. High hopes and bold plans for the future filled her being. Neither she nor the passionate interlocutor who had so recently bidden her farewell could guess that it was not only the Khrushchev decade that was fading into the past along with the dying autumn. Also passing into oblivion were the many many treasured dreams and revolutionary initiatives of a whole army of pioneers who would soon come face to face with the numbing, ice-cold stagnation at the heart of the Brezhnev era. Bureaucracy was inexorably approaching its zenith. Its time had come.

CHAPTER 20

Borshch and porridge à la Buteyko. A meal and a farewell chat

Preparations for Natalya Voronova's trip to Leningrad were completed in January 1965. One evening in early February she called at Dr Buteyko's house. She wanted to clarify some points and resolve a few delicate questions.

Finding Buteyko alone in his flat was no easy matter. Anyone who was serious about getting to see him knew that. Even within his own four walls, the Doctor's time was not his own: he was always extremely busy, surrounded by people desperate to take up the Method. But Natalya was in luck. It was Buteyko himself who opened the door. He helped her off with her coat and invited her into the kitchen for tea and a bite to eat.

Natalya knew the Doctor's wife was often away on tour with the theatre for long periods and so was not particularly surprised that it was the head of the household himself who did the honours in the kitchen.

"I'm used to fending for myself," the Doctor explained, a bit embarrassed, as he rinsed out a small enamel saucepan. He was in his trademark Ukrainian smock, worn over lightweight brown trousers, and he looked entirely at home. There wasn't much domestic cosiness about the kitchen though - it felt more like a kitchen in a student hostel.

"Have you seen how I make my porridge?" asked Buteyko, using a grubby cloth to wipe away some crumbs stuck to the table. Natalya shook her head. Like everyone in the Lab, she knew the Doctor had a rather unusual diet. At staff parties she'd sometimes tasted something he had cooked and heard how it was made. But until now she hadn't had a chance to actually see how he prepared his famous porridge.

"I don't have any special diet," Buteyko would often say to his staff. "And mind you don't start a course of treatment by lecturing patients on what they should eat," he would caution. "Breathing and breathing only! First and foremost, volitional reduction of the depth of breathing! Plenty of time later for porridge and suchlike..." That was the Doctor's basic principle. And he was right. The minute a trainer broke that rule, progress would be disrupted. Patients would set about making porridge from the recipes they'd heard, and would be rewarded with some minor improvements in their health. But after that, there was no budging them any further. The work just ground to a halt because usually patients began to rely on food rather than willpower. Basically a 'food fix' was easier, and thereafter any exercise of willpower was out of the question. Patients would pin their hopes on the power of 'special diets', their willpower would evaporate, and they would be left clutching at the minimal benefit that 'food fixes' on their own could offer.

"You need to hammer home the message about breathing again and again, then mention food just once at the end!" the author of the volitional elimination of deep breathing would insist. "You see, patients are stuffed full of pernicious ideas about the extraordinary powers of diets. It's rubbish, complete nonsense! If

you breathe normally, you'll be healthy no matter what you eat," he would repeatedly assert. Despite this, however, the Doctor did have a preferred dish, which he himself had created - a kind of porridge prepared in a special way. Of course, he could afford to have one. For a start, he knew the Method inside-out. And secondly, taking this porridge was a conscious decision he made only after a prolonged period of volitional training of his breathing. So there was no question of any weakening of willpower.

The Buteyko-ites all knew the recipe for the porridge. Many of them (Natalya included) made it part of their intake. But it would be fascinating to actually watch Buteyko prepare this gruel that worked such wonders.

"First we take some millet," said the Doctor, reaching a small jar down from the top shelf. "Do you know the difference between millet and millet groats?" he asked. "Millet is the grain before it's been hulled and ground," he explained without waiting for an answer. "That's the only way it still has all its vitamins. As I told you all on our island trip, when my grandfather wanted to make porridge he would go to the barn where he kept the millet sheaves." Buteyko turned the jar of millet from side to side. "He'd put some in the mortar then and there, hull it, winnow it, grind it and end up with top-quality millet groats. Groats that made porridge like porridge should be! According to the idiots in the Academy of Sciences, however, grain should be threshed and ground beforehand - destroying the best of the health-giving vitamins and micronutrients.

"But Doctor, where do you get hold of millet like that?" asked Natalya, smiling her charming smile. She took hold of the jar of unhulled grain for a moment. "Everything's processed nowadays, as you yourself said."

Buteyko took an ordinary coffee grinder and opened the lid. "You put the millet in a coffee grinder..." he said. "Where to get hold of it, you're asking?" he went on, screwing up his eyes. He shook the grinder. "It's not easy, that's for sure. But you'll find it if you try hard enough and you know where to look. At the moment they still sell millet at the bird market, for example.

"Then we take wholegrain rice," he continued, reaching down from the shelf another small jar containing whitish-grey grain. "Now this you won't find at any bird market any more," he went on, handing Natalya the jar, "you have to order it specially." He noticed the look of dismay on her face and exclaimed, "There's no choice! Natural foodstuffs are getting dearer and dearer these days, now we're so civilised."

Buteyko took the container from her again. "This rice is sent to me by former patients of mine in the Crimea and the Kuban. From their own kitchen gardens. There's nothing else for it. You can't get it anywhere these days." He wiped his hands on a towel hanging from a nail and grew thoughtful for a moment.

"The 'Grain Processing' book we published says that when grain is ground up to 80% of beneficial content is lost. Up to 80%!" The Doctor raised a finger in the air. "How low have we sunk when we damage a natural product to that extent -

against all common sense! And we do it knowingly! Knowing we're damaging ourselves! It's just incredible..." The Doctor reached up to the shelf again. "Now, here's the third and final ingredient - oats."

"Also unprocessed?" asked Natalya, swallowing. She was getting increasingly hungry.

"Naturally," Buteyko confirmed.

In fact, of course, Natalya knew the recipe well. She had frequently heard about the porridge (and had even had occasion to try it). But she wanted to make quite sure she had things straight by actually seeing it made. Warmed up now after the cold outside, she took her pale blue scarf from round her shoulders and hung it over the back of a chair.

"To my mind, seven roads lead to the downfall of humanity." Characteristically, the Doctor was moving directly from porridge to more universal questions. "War, suicide by medication," he gave Natalya a sly wink, "and doing things like grinding grain..."

Natalya interrupted swiftly. "So Doctor, the grain's in the coffee grinder - now what?"

"Oh yes," said Buteyko, coming back to earth. "Now remember, we've put in equal parts to make up just the quantity we intend to eat. Now we switch the grinder on and grind it all up." Natalya watched the mixture of grains begin to swirl and jump behind the transparent casing of the grinder. "We pour just a little water into the saucepan. Enough just to cover the mixture once it's in the pan." He poured water into the saucepan to a depth of about three fingers worth .

"We put it on the stove and bring it almost to boiling point," he said. He had the air of disclosing secrets of the inner sanctum. "We finely chop an onion. We get some black pepper," he moved a pepper pot a little nearer, "and now, before the water actually boils, we put in the ground-up grain mixture and then boil it for just a short time. Three, five minutes - no more! Until the first scum starts rising to the surface." He stirred the mixture in the pan. "Now we mix in the onion and pepper and we add a lot of salt." Buteyko bent down to get the salt from inside the lower compartment of the cupboard. "Mind you don't spoil it by using that 'superior' salt they sell in the shops." He tossed in a pinch of rather odd-coloured salt and took the pan off the heat.

"Shop-bought 'superior salt' or 'iodised salt' is no good for this," he explained as he carefully stirred the steaming, appetisingly fragrant gruel, giving it time to cool a little. "That stuff's only any good for canteen food. Sometimes in the autumn, though, the shops sell coarse ground salt for pickling vegetables. Three kopecks a kilogram. That would be OK. Or the kind that's scattered on the ground in the countryside for the cattle. Really coarse stuff, in lumps. That would do as well. At least it's less refined than 'superior' stuff that's been purified to within an inch of its life. Me, I'm lucky - I've got the very best natural salt." He proudly handed

Natalya a green hand painted salt cellar. "Brilliant stuff. From the Azov Sea! Its composition is practically the same as human blood. Very similar. And none of that wretched refining. They dig it out with spades from salt heaps which have evaporated in the sun. So it still contains masses of vital micronutrients!"

Natalya was so interested she sniffed at the salt cellar.

"I don't know what idiot came up with the idea of refining natural salt down to the 'superior' state - when all that's left in it is sodium chloride. Shooting would be too good for the blighter." The Doctor blew on the porridge.

"First they refine it, then they iodise it, the clots! In its natural state, salt contains potassium, iodine and lots of other things we need besides sodium chloride. But try telling them not to play God? Not to mess with a substance formed over centuries and millennia? Oh no, no, no, say they. Let's refine it and iodise it. And why? To find work for idle hands! That's the only reason..."

Buteyko tasted the brownish gruel and salted it again. "Are you not overdoing it, Doctor?" Natalya put in cautiously. Instead of answering, the Doctor held out the burnished wooden spoon to her. "Oh I know - our esteemed doctor friends limit the use of salt. But you know my opinion on that. 'Aha, you've got kidney disease - eat less salt. Oedema - eat less salt. Your blood pressure's up - don't overdo the salt...' The Chugunovites blame salt for everything! It's not salt that's the problem, it's their own ignorance!!!"

Buteyko swallowed a spoonful of porridge. His eyes closed with pleasure and his face, peppered with small red marks where long ago splinters of glass had been removed after a car accident, immediately relaxed.

"You and I are in the Method, and salt holds no fear for us. On the contrary, as we teach our patients in the Lab, salt is absolutely vital."

"Doctor, I know that when you're in the Method the metabolic processes intensify, salt loss from the body increases as well, and it's vital that that loss be replaced. But you've poured enough in the pan as it is..." said Natalya, trying to justify herself.

"You get on with eating, and argue about it afterwards," Buteyko replied, pushing the pan towards her.

Natalya was extremely finicky about hygiene and found it a bit off-putting that he didn't put out any plates. Instead he offered his guest a wooden spoon identical to his own - the kind used in the nineteenth century - to scoop the porridge straight out of the pan as he was doing. But on reflection she realised that, as with everything Buteyko did, a ritual of this sort probably had some valid reason behind it even if he didn't explain it to everyone.

On the one hand, by eating dinner out of the same pan it was as if the Doctor was demonstrating his particular regard for her. An extravagant gesture of

confidence, if you like. But on the other hand... On the other hand, don't forget - he's been poisoned three times, thought Natalya, recalling some of Buteyko's stories about his life. It might very well be that this common pot also guarded against any repetition of such attempts... After all, all kinds of people flocked to see him. It would be the work of a moment to slip a few groats in the gruel. And while she and the Doctor did work together, the people who had poisoned him hadn't exactly been strangers either...

"I've added a tiny touch of butter and sour cream just for you," Buteyko told her as he stirred the porridge. The oil contained in the grain itself is generally more than enough. So it's just in honour of my guest."

The hot, brownish-coloured porridge was very strong and very tasty. Swallowing spoonful after spoonful, Natalya noted with surprise that she was not missing the usual addition of meat to the garnish. Buteyko's onion, salt and pepper replaced everything.

"Doctor," she said, scooping some porridge from the very middle, "when patients ask you about food you often answer, 'Porridge and borsch are our bread and butter'". She licked the spoon hungrily. "Well, this is the porridge and I'm really enjoying it. But what about borsch à la Buteyko? I'd love to know how you make that too."

The Doctor turned round on his chair and took another jar from the windowsill. It had something greenish inside. "This is my borsch," he said, opening the red screw top lid. "You take dill, sorrel, parsley and coriander. Chop them finely. Add salt. Pour vinegar over it. Chop it all carefully again." He let the greenish, vinegary-smelling salad fall out onto a clean plate. "By all means you can have some 'borsch' before you have your porridge. It doesn't go off and it doesn't turn sour. It's wonderful stuff! But now," the Doctor screwed the red lid back on, "you haven't come to see me this late in the day to talk about porridge and borsch. Even if the porridge does lengthen my control pause - and therefore my body's reserves of strength too - by about a third." He drew back the chintz curtain. "Look, it's getting dark already. I dare say your husband's wondering what's happened to you. What's on your mind?"

"I got my plane ticket." Natalya opened her elegant handbag. "And I've got all the travel documents for the Leningrad trip. But..." she hesitated.

"Don't keep me guessing," urged the Doctor. "I get up at 4.30 in the morning, as you know. Which means my brain's not working properly by now," he yawned wearily, covering his mouth with his hand. "What's on your mind now?"

Natalya's attractive grey eyes took on a steely look.

"Nothing particular... I've talked everything through with you. I'll try not to fall for Chugunov's gimmicks - his powders and the infamous hellish brew. I'm going to clear a path for OUR METHOD, not for their powders, and I won't forget that." She drank a mouthful of tea from a dark-blue mug which the Doctor had politely

pushed towards her. "The thing is, Doctor - I don't know how to put this..." she clasped the hot mug with both hands, "has Dr Bubentsova worked with you a long time?"

"Longer than you," said Buteyko, suddenly alert, "Why...?"

"You see," Natalya said, with a decisive shake of the head, "she had a kind of private chat with me before I set off. She said, 'Of course, Doctor Buteyko's a brilliant scholar and so on. But his abruptness and his direct manner do him more harm than good. People like Chugunov will never agree to recognise his Discovery as it stands, far less solely under his name as sole author... They've their position, their name to consider... And, if you'll forgive my saying so, our little Lab is practically unknown - it's just not on the map.'

"Oh dear!" Natalya suddenly burst out, noticing Buteyko's face redden, "Perhaps I shouldn't have told you. Dr Bubentsova respects you and values you very highly - there's no doubt about that."

"Finish, since you've started!" said the Doctor angrily. "Why are you giving me the kid glove treatment?"

Natalya lowered her eyes. "Well, Dr Bubentsova suggested we shouldn't insist too rigidly on the Method and only the Method. She said it would be good to try to arrive at some compromise. So as to satisfy both sides... And actually, Doctor," she was now returning Buteyko's direct gaze, "wouldn't it be worth listening to your old comrades-in-arms? Dr Bubentsova wishes you well. And you yourself were saying she's in line to be one of the first in our Lab to defend her PhD dissertation. It's natural she should do what she can to ensure that you, as the Lab's Scientific Director, don't have quite so many enemies. Otherwise she's no hope of getting her PhD... I'll tell you what she said to me: 'When Chugunov asked us to test out his powders in the Lab, we could have agreed. We could use our equipment to test the efficacy of the powders, and in return they would start allowing the Method to be used in Leningrad. That's the way of it in science: you scratch my back and I'll scratch yours.' That's exactly what she said."

Buteyko abruptly pushed aside the cold teapot. "All sorts of things go on in science, Natalya."

Natalya brought her hands out in front of her. "Please, I beg of you. Don't say anything to Dr Bubentsova. She worries so much about you. She probably just wants what's best."

"We all want what's best," the Doctor pronounced philosophically. Evening was drawing in and he was tired out. "But we approach our goal in different ways. I'm not offended by Dr Bubentsova. She's on her own. She has a child to feed. Of course she badly needs to get that PhD..."

"But all the same," the Doctor cleared the jars from the table, "it's a bit rich of her to be looking for compromises as if she was Miss Flexibility herself. She didn't

manage to find a compromise with her husband. He just upped and left her, whichever way you look at it. Why do you think that was?"

Natalya shrugged. All sorts of things happen in family life. She cast an eloquent look round the room, which was not very comfortable - more like a kitchen in a hostel.

"I know..." Buteyko caught her meaning immediately and was quick to concur. "People leave for all sorts of reasons. But still - don't you dare bring me any of Chugunov's powders! They're as much use to patients as a bandage on a corpse. And they'll be no help to us either... Actually, I know you wouldn't bring them anyway, even without me telling you." Natalya had stood up, and he followed suit, handing her the scarf she'd forgotten on the back of the chair. "You see, I know who to send to the Chugunovs of this world." He patted her shoulder encouragingly. "Some metals are stronger than pig-iron."

CHAPTER 21

A chilly reception in Leningrad. Can an asthmatic professor cure asthma?

Leningrad greeted Natalya Voronova with dank air and wet, muddy streets. She settled in at her hotel and then, since she had flown in on a Sunday and there was no point in going to Chugunov's department, decided to take a stroll round the city.

Destiny had first led her to Leningrad, city of Peter the Great, 11 years earlier, in 1953. It was the very beginning of March, and she and some fellow school-leavers were competing in a sports event in the ancient Ukrainian city of Lvov. The streets of Lvov had also been damp and unwelcoming. Despite the gloomy weather, however, Natalya was in high spirits: she had performed brilliantly in gymnastics and was absolutely delighted with her success. The news that Stalin had died came as a stunning blow. People had known, of course, that he was seriously ill. They'd been anxious. But they'd clung to the hope that the worst wouldn't happen.

And now suddenly he was gone... How well she remembered her best friend Lena sobbing on her shoulder. "What's happening?" she had asked, wiping away her tears. "How can we go on living? Without HIM?!"

Without Stalin, life was indeed unimaginable. Natalya had never thought of herself as a cry-baby, but she too had broken into loud sobs.

Even before the news broke, Lvov's bleak, damp little streets had seemed pretty uninviting. Especially as evening drew in. They'd been warned only to go out in threes, and not to wander too far. Even in early 1953 the anti-Soviet group known as the 'Forest Brethren' was not entirely a thing of the past. You still had to be very careful in some areas.

As she wept for Stalin, young Natalya couldn't have known that 10 years later her idol and life-long mentor would be a man whose joy on that day of 'national mourning' knew no bounds. Dr Buteyko was conducting his own kind of wake for his sworn enemy... Grief is as grief does.

But every cloud has a silver lining. At the sports competition in Lvov a coach approached Natalya with an offer of a place at the Lesgaft Institute of Physical Education in Leningrad. And so it was that life first led her to the city on the banks of the Neva.

She had arrived in Leningrad six months after Khrushchev had taken Stalin's place. And now she was here again, six months after the end of Khrushchev's rule. The period of transition after a change in national leadership is always tricky. No matter what changes are anticipated for good or ill. Things may not turn out as expected...

However, while Stalin had been buried with full honours and the whole country had mourned him, Khrushchev had been ostentatiously removed from his post

very much alive and no-one had shed a tear. That made this transition period significantly different from the one before, and the difference was keenly felt. Natalya bought a newspaper from a kiosk beside St Isaac's Cathedral. A bold front-page headline jumped out at her: 'Make the Seven Year Plan a real success!' The article reported workers' delight at the growing rivalry between factories in Moscow and Leningrad. The whole nation was firing on all cylinders to make the seven year economic plan succeed. Particular attention was drawn to the workers of Moscow and Leningrad and their determined efforts to create the material base from which Communism could be launched. More power to their elbows in 1965!

Natalya sat down on a bench and put the newspaper on her knees. 'They are determined to create the material launch pad for Communism...' But that was Khrushchev's idea! In other words, none of his Party policy statements nor any of his long-term plans had been revoked. She brought the paper up to reading distance again. '...In taking on these commitments, the people of Moscow and Leningrad demonstrate their passionate determination to implement the historic resolutions passed by the 20th Party Congress; to ensure the success of the seven year plan; and to increase the economic power of the nation and the prosperity of its people...' In other words, the resolutions passed by the Congress were being affirmed too. They were even being called 'historic'. But it was Khrushchev who had led the Congress! A lot of the resolutions had come out of the speech he had made.

Strange to think that the official author of these 'historic resolutions' had been put out to grass. And meanwhile Brezhnev, the new leader, wasn't much in evidence at all. It was Kosygin whose photograph was everywhere. Natalya turned the page, smoothing it out where the wind had rumbled it. Talk of the devil - there he was, centre-page, sporting a dark raincoat and a semi-crew cut. Beside him Mao Tse Tung, in a Stalin-style high-collared jacket stared gloomily out from the photograph. The text underneath said, 'This morning Mao Tse Tung, President of the Chinese Communist Party Central Committee, and Chinese President Liu Shao Chi received A. N. Kosygin, President of the USSR Council of Ministers, and his Soviet delegation.'

I wonder who's really in charge at the moment, Natalya thought distractedly as she rolled the newspaper up. Khrushchev exposed Stalin. Kosygin gets photographed beside Communist grandees dressed Stalin-style. But there's no sight or sound of whoever's behind the whole thing... Oh well, good luck to him anyway. She took a two-kopeck coin from her handbag and set off unhurriedly for a phone booth she could see not far away. Time will tell, she told herself.

Natalya may not have been clear about who was in charge of the country, but she was due to come face to face with the people in charge of the country's medical services the very next day. And she wanted to find out as much as possible about them. Victory on the battlefield is largely determined by successful intelligence-gathering. With a steady hand, Natalya dialled the number of a friend who had been at the Lesgaft Institute of Physical Education with her. Lena would no doubt be able to fill her in on Leningrad's top medics.

But she didn't answer, and two further attempts to ring Leningrad friends also failed. Suddenly Natalya felt the wet snow chilling her to the bone. There was nothing for it but to return empty-handed to her warm hotel room and order a big pot of tea.

Darkness had already fallen outside her windows when she remembered Buteyko's sardonic remark: "Chugunov shot me in the back with an iron bullet..." She stretched out comfortably on a creaky ottoman. Yes - and we'll do our best to send that bullet boomeranging back, she inwardly resolved.

Natalya was at Chugunov's department by nine o'clock on the Monday morning. A curvaceous secretary was hurriedly typing something and made no attempt to stop her walking right through the waiting room. Cautiously she pushed open the black-leatherette-covered door of the Head of Department's office.

An elderly man - rather puffy-looking - was sitting behind a desk, neatly folding a handkerchief he had just used. He looked up for a second. A cursory glance was enough to take the measure of this girl in her trendy grey jacket - she seemed extremely young. "Wait!" he barked.

Natalya quickly closed the door again and sat down in a shabby brown leather armchair near the secretary, who stopped typing, adjusted her auburn chignon and went out of the waiting room. Natalya was left alone.

The clock on the waiting room wall showed half past ten, and she had still not been called into the office. During this time the mistress of Chugunov's ante-chamber had gone in and out of the room several times. Finally, when the minute hand on the clock had completed its full circle, Natalya stopped her as she walked past yet again.

"Excuse me, please," she got up from her seat, "I've come from Novosibirsk to see Professor Chugunov. No-one's been with him for a whole hour," she glanced meaningfully at the clock, "but he still hasn't called me in."

"Why didn't you say so before?" The secretary's generous bosom shook with laughter. "He probably took you for a student! He'll have thought, 'Here comes another one pestering me about exams...' You're very young-looking," she teased, with a wink. "I'll get things sorted for you now." She disappeared behind the black leatherette door.

A very Personal Assistant. That augurs well..., was the ironic thought that flashed through Natalya's mind. And it was unthinkable that Dr Buteyko would sit alone in his office keeping someone waiting! Even if it was just a student.

"Please go in," said the secretary, opening the office door wide and motioning her inside.

Natalya took a few rather unsure steps into the room. It was quite large and the furnishing was oppressively formal. But it wasn't the solid furniture that took her

attention, nor the absolutely massive portrait of Chugunov, luminary of Soviet medicine, hanging behind the desk. It was the appearance of the small, dark green-suited owner of the office that jumped out at her. Before her, holding on to the edge of the desk, stood a critically ill patient!!! Not someone slightly unwell. Not even someone quite seriously ill. No, this was someone who, as the saying goes, was late for his appointment at the cemetery. Listening to the painfully laboured breathing of Stepan Chugunov (full member of the Academy of Sciences), Natalya Voronova (Buteyko-ite with some knowledge of asthma) realised with horror that he was having a full-blown asthma attack. The country's leading light in the field of bronchopulmonary disease! How could he cure anyone when any minute he might die of asthma himself?

Her alarm was obvious enough for Chugunov to be affected by it. He had become unaccustomed to such reactions, since he was utterly convinced his ideas were correct and his underlings were used to his condition.

Natalya almost blurted out, "Don't breathe so deeply, for heaven's sake!" Chugunov seemed to sense something of the kind, and quickly reached for his handkerchief. Natalya, her voice stiff with shock at how ill he looked, gave her name. She outlined the aims of her research trip and handed him her crumpled letter of introduction. He seemed to buckle a little in the face of her genuine fear.

"So, you're from Buteyko..." he said, blowing his nose loudly and bringing the papers up to reading distance.

"Yes. From the Laboratory of Functional Diagnostics," Natalya confirmed, rallying a little from the shock.

Chugunov looked her up and down slowly, as if undressing her with his gaze. Does he really still take me for a student, she wondered, shrinking back a little. He must have been expecting some bigwig scientist to turn up. And here I am instead...

With some alarm she glanced down at her knees, tightly sheathed in a narrow skirt. What she didn't realise was that Chugunov would probably have refused to let a 'bigwig scientist' conduct any trial of the Method, even semi-official. Why take the risk? What if it was successful?! It would then be much harder to dismiss the Method.

But this little chickadee needn't worry me, thought Chugunov. Once again he allowed his gaze to glide pleurably over the firm breasts of Buteyko's Siberian envoy, clearly delineated beneath her jacket. Even if her boss manages to fool his patients with some sort of hypnosis, there's no way this slip of a girl could, he mused. Flashing bare knees won't stop an asthma attack.

Meanwhile the chickadee cooed softly, "Professor Chugunov, if you knew how wonderful the Buteyko Method is! No matter what people say," Chugunov's

bushy eyebrows started twitching “the Discovery of the Diseases of Deep Breathing really does stand the whole of contemporary medicine on its head!”

She caught the Professor’s predatory gaze on her and fastened the top button of her jacket. “You’ve no idea how much we’ve been looking forward to doing at least some sort of trial in an outpatient setting...”

This grey-eyed sweetie-pie chirps a tuneful song, the Professor thought. Puffing his cheeks out, he uttered a vague “Tss, tss, tss,” his manner suggesting profound thought. Then suddenly he began laughing - loud laughter devoid of warmth. No hint of goodwill there, thought Natalya. Her face still wore a bewitching smile, but her heart skipped a beat.

“Well, why not...” Chugunov settled himself pompously back in his armchair. “Do a trial, dear colleague, do a trial...” Then suddenly his face darkened. “Though I have my doubts, you know. Grave doubts!” Natalya felt a chill as if from an open window. “You see, I myself suffer from asthma, I’m sorry to say...” His small eyes bored into her, full of suspicion.

No need to tell me that. I can hear you breathing a mile off, thought Natalya silently. She had begun to tire of this unspoken battle of wits. He took a small pack of proprietary medicine out of his pocket. “I take Prednisolone myself.”

My God, he’s the national asthma expert and he relies on hormones! That caps it all, she thought, feeling a little sorry for the Professor. She might have felt sorrier had she not known that by barring the way to the Method, Chugunov and his like also condemned thousands of critically ill patients to rely on hormones!

“And here are my powders...” Chugunov leant over and extracted a small paper sachet from his other pocket. Natalya tensed up. This was it: if he suggested they investigate the efficacy of his powders on patients in their Lab, all was lost.

There was no question of her playing for time to trial the Method by knowingly deceiving Chugunov with a promise to test the powders. She wasn’t that kind of person. But an outright refusal right at the beginning of their work together might kill the whole thing stone dead.

“My powders are something I do know about!” Chugunov was still turning the sachet round and round in his gnarled fingers. “They’re highly reliable.” His voice suddenly deepened and filled out. “That’s been proven over many years now. They’ve even been called after me: Chugunov powders.” He grinned proudly. Natalya almost retorted, ‘And what do they call your hellish brew?’ She went red to the roots of her hair but remained silent.

“A complex affair, Chugunov powders,” the Professor went on, warming to his favourite theme. He looked at Natalya’s knees again. “And I’m sure this

'breathe-but-don't-breathe' Buteyko Method," (he made it sound like 'Potato Method') "is also absolutely fascinating..." His contempt was obvious. An oppressive silence hung over the room. Chugunov waited. He was clearly genuinely expecting Natalya to slip up, inexperienced in verbal psychological warfare as she would doubtless be. Just the tiniest error of judgment on her part and the need to conduct any even completely unofficial trials (with no Ministry of Health approval) would simply evaporate.

Chugunov waited. But he was in for a long wait. This chickadee, this Siberian bird of passage, had his measure exactly.

Chugunov realised Natalya had won the first round. Through set teeth, syllable by painful syllable, he muttered, "I'll write you a letter of introduction for our main clinic."

CHAPTER 22

Buteyko's ominous premonitions. Inventor to inventor: friend, colleague and... enemy

Clutching in her hand the referral document she had obtained at such cost, Natalya Voronova hurried to the clinic without stopping anywhere for lunch. She felt there wasn't a moment to lose. Who could tell what that fanatical adherent of his own 'compound powders' might do - it was quite possible he would change his mind...

She quickened her pace. Chugunov's secretary had given her good directions. All the same, I've done well, Natalya thought exultantly. He was desperate for me to lose control in reaction to his mocking remarks about the Method... It was no mean feat to have won the first skirmish against such a hard nut.

But it hadn't come to that. Natalya stumbled slightly on the icy kerb. For all his straightforward, indeed disarming, openness, Dr Buteyko also knew how to prepare his people for this sort of encounter. He had painted them a portrait of Chugunov and every detail, even the most trivial, had turned out to be spot on! That was how she had managed not to slip up - she had been well prepared.

However, Natalya was inexperienced in the clandestine machinations of academia and was rejoicing too soon. Stepan Chugunov was not someone to give up without a fight. After failing to withstand the frontal attack from the assertive and, as it turned out, not entirely naïve Natalya, he now employed an avoidance tactic. He had made sure to put it in place long before the emergence of any kind of results (positive or negative) from her Method-related activities, which had not even begun yet.

"Dr Feoktistov, please be so good as to lend your assistance..." for the umpteenth time she read Chugunov's note to the Head Doctor of the clinic where the trial was due to be carried out. On the surface, everything appeared to be as it should be. She had been received by a real academician - never mind how, there was no need to pour cold water on things... The main thing was, she had the referral letter for the clinic.

However, it never even occurred to Natalya that even a successful outcome to the clinical trial of the Volitional Elimination of Deep Breathing Method, endorsed by the disgraced Head Doctor, Feoktistov, would not count for much against the weight of biased scientific opinion. After all, how could she know that neither the discredited Head Doctor nor the documents he signed would be of much value? As she rejoiced in her initial success, she was blissfully unaware of any of this.

Chugunov, however, was very well aware of it. One might wonder why Feoktistov had been kept on as Head Doctor at the clinic, given that, to put it mildly, he did not exactly inspire great confidence among the senior management. But Chugunov knew exactly why.

Igor Feoktistov was very useful. There was the indelible blot on his file relating to his time as a prisoner during the Second World War (for which he was sent to a prison camp in the arctic zone of Kolyma in the years immediately following the war) but, at the same time, he was an excellent, highly qualified specialist who knew what he was doing.

It was no bad thing to keep someone like that close to you. His work (of which there was always a great deal) was always flawless and, should the need arise, pressure could be brought to bear on him if he didn't watch his step... He could be given a gentle reminder, should he forget, along the lines of, "Listen, old chap, you made your way back from the camps once, but there's nothing to stop you going back..." And so Chugunov sought to insure himself against any unpleasantness arising from his own not entirely successful debut with Natalya by sending the determined grey-eyed Siberian to Feoktistov.

Natalya took to Dr Feoktistov straight away. Here was a doctor who possessed an inherent humanity which imbued his every action.

"Don't fret," he said, seeking to reassure her from the very first (she had not yet recovered from her encounter with Chugunov). "We'll have a nice cup of tea." The Head Doctor said something to the nurse who had just looked round the door of his rather basic office.

"So, tell me your full name. Natalya Voronova? Well, I'm very pleased to meet you. I'm Igor Feoktistov." The Head Doctor's face broke into a sincere and friendly smile. His whole frame, which was broad but somehow weighed down by an invisible burden, invited frankness. Even the small, pink scar on his left cheek did not mar the man's overall charm and appeal. Only his lively hazel eyes betrayed a glimpse of inexplicable sadness and pain, such as can be observed in people who have suffered and seen a great deal in their lives.

Not really knowing why, Natalya found herself telling the Head Doctor everything in the rather brief conversation which ensued. She outlined the essence of the Volitional Elimination of Deep Breathing and talked about the miraculous results it had already produced. And she told him about the difficulties which had emerged around the Method... This was something she had only touched on very superficially with Chugunov - rightly surmising that such information would just play into his hands. But with Igor Feoktistov she spoke completely openly.

"In hospitals patients are dying one after another from conditions which can be alleviated by the VEDB. The morgues are stuffed with them. And Professor Pomekhin's people won't allow our patients even to leave their coats in the cloakroom - can you imagine? So the patients' fur coats lie in heaps on the dirty floor of the entrance hall and all the while the cloakroom is half empty!"

Leaning across the table, the Head Doctor took her hand sympathetically.

"What kind of clinical trial could we hope to have there?! There's no question of it. Everything is poisoned by hatred of Buteyko. His enemies are prepared to bury

hundreds of mortally ill patients in mass graves rather than give any room to the discovery of the disease of deep breathing!"

"Hush now, calm down, Natalya." The Head Doctor reached for her hand again. "What we'll do is we'll have two groups. Our districts are full of people suffering from severe bronchial asthma. And," he leaned closer, "most importantly, we have an excellent staff team at the clinic. There's no need for me to remind you how crucial that can be..."

Again a dark shadow passed fleetingly across his eyes and he rubbed a finger over the pink scar on his cheek.

"Quite a number of our doctors lived through the Siege of Leningrad during the war." Igor Feoktistov suddenly fell silent, his gaze fixed on a point somewhere in the distance. "It's hard to intimidate someone who saw that famine, you know... And there are other doctors who were at the Front." Here the Head Doctor faltered slightly and dropped his gaze.

"Basically, we have an excellent, strong team! So I reckon," he looked directly at Natalya, "together we can do this." As he uttered the last few words, Igor Feoktistov, apparently unintentionally, crushed the note from Chugunov against the table top. "You can count on me!"

While Natalya Voronova was doing everything she could in Leningrad to carry out the mission entrusted to her, far away in Siberia, at the Laboratory of Functional Diagnostics in Akademgorodok, they waited in trepidation for any news from her. Buteyko's colleagues understood very well how much depended on this trip which, at first glance, seemed nothing out of the ordinary.

But most anxious of them all was, of course, Dr Buteyko. He was always the first to leap up when the phone rang and, once he established that it wasn't Natalya, his responses were laconic and reserved.

His fretful thoughts gave him no peace day or night. He had basically told Natalya everything about Chugunov. He'd done his best to arm her against any surprises. But there was no escaping the fact that Chugunov was not the only person in Leningrad who distrusted the Method...

Well, to say 'distrusted' was an understatement. There were important figures in Leningrad's medical circles for whom the very mention of pulmonary hyperventilation was enough to send them into an apoplectic rage. Buteyko had not intimated anything of this to Natalya. He hadn't wanted to frighten the young woman unnecessarily or crush her faith in the possibility of success. But if the General caught even a whiff of the planned trial, they could definitely abandon all hope.

Dr Buteyko ground his teeth. Ach, the General! He was transported back to his last trip to Leningrad. No-one could have foreseen what happened in the General's office. At that time Buteyko had been visiting quite a number of the

luminaries of Soviet medicine as he tried to find a way forward for the Method. He'd seen his fill of disgust and barely concealed disdain. But no-one had ever treated him like Sharatsky did...

Frustrated by Chugunov's sceptical attitude to his discovery, Dr Buteyko had gone to the General in the hope of support from a straightforward and therefore, he thought, more open-minded military man.

That rainy Wednesday the Academy had been full of people. With considerable difficulty he had negotiated his way past the officials and managed to reach the office of General Abram Sharatsky. Surrounded by a retinue of assistants, the General was seated at a huge desk, looking for all the world as though he was on a throne. Sharatsky was inordinately fond of his gold-embroidered general's uniform and he was virtually never seen without it.

Despite some silvering at the temples, Abram Sharatsky still looked a comparatively young man. Initially Buteyko felt rather tongue-tied. Before him sat none other than the inventor of the pre-war Soviet gas mask, a great physiologist and functionalist. As an inventor, he, surely, more than anyone else, would be able to understand the pioneer of the Discovery of the Disease of Deep Breathing. What was more, his own invention had also been in the respiratory field. Buteyko had every reason to consider Sharatsky one of the leading respiratory specialists in the country.

"What is it?" The General put down his gilt fountain pen, cut short his reply to the tall assistant at his side and turned to Buteyko who stood, rather perplexed, in the doorway.

"I spoke to you on the phone, General Sharatsky." Buteyko approached the desk, carefully unfurling a roll of charts.

"Ah, yes, something to do with breathing and oxygen," Sharatsky recalled in a deep voice. Buteyko's gaze was involuntarily drawn to the General's prominent Adam's apple which twitched and disappeared behind the high collar of his tunic.

"So, what's this about?" Abram Sharatsky saw the Doctor was about to lay out his charts and pushed his own papers towards the edge of the desk slightly.

"I have here the results of the work we've done at our Laboratory of Functional Diagnostics." With the help of the assistants Buteyko just about managed to spread out the charts he'd brought with him on the cleared area of desk top.

"You can see here," Dr Buteyko indicated with a finger the chart which lay just under Sharatsky's nose. "This is the spirogram for Patient B, who attended the Laboratory. The diagnosis was bronchial asthma."

Abram Sharatsky stared with suspicion at the inky line of the graph before him.

"This is with a respiratory minute volume of over 16 litres." Dr Buteyko traced his finger along the zigzag curve which looked rather like a tightly coiled spring. "What we can see in this 30-year-old patient is a serious asthma attack." Buteyko stopped at the last rather broader, smoother peak of the curve. "I can tell you, the patient was in absolute agony at this point.

"And this is what we observe exactly five minutes after the patient began to reduce the depth of his breathing." Dr Buteyko proudly traced the lower curve with a pencil he found lying on the desk. This curve also resembled a spring, though perhaps one less tightly coiled, and its peaks and troughs were considerably smaller. "The patient started to take in five and a half litres of air per minute and the attack stopped. It was halted!"

Seeing plain disbelief and a slight grimace on the General's face, Buteyko hastened to explain.

"It turned out that it's all to do with excess ventilation of the lungs. So what we observe is hyperventilation." He again drew the blunt tip of the pencil along the upper curve with its tall, more compact zigzags. "That means you would expect an asthma attack very soon." The pencil stopped on the last smooth peak which appeared to stand alone from the others.

"Deep breathing causes the bronchi and vessels to spasm. This means that hyperventilation is the cause of oxygen deficiency. With a respiratory minute volume of 16 litres, too much CO₂ is expelled. This leads to the Bohr effect, where the blood is less efficient at transferring the oxygen it carries to the tissue cells. Basically, one thing leads to another..."

"What did you say?!" The General's face had turned red to the very tip of his considerable nose.

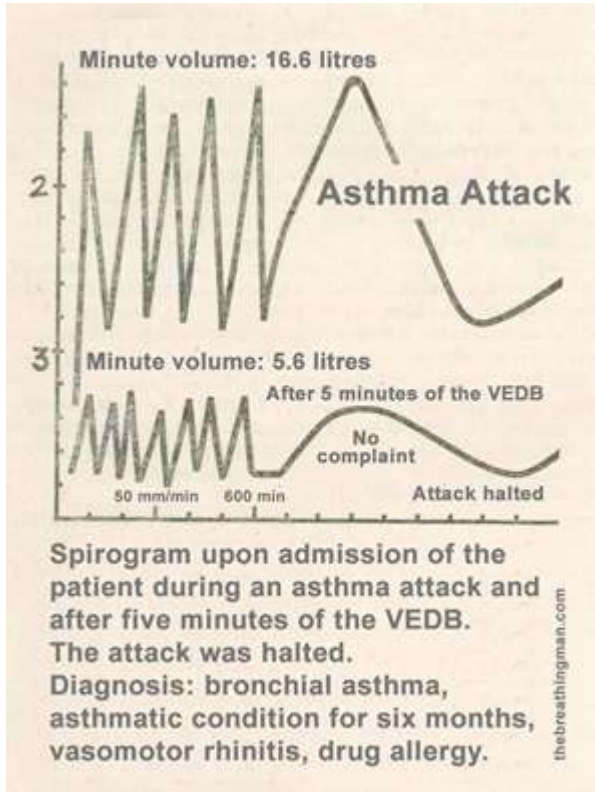
"What I'm saying is," Buteyko didn't notice that he had suddenly started to speak a lot more quietly, "in the case of asthmatics..." Rather less confidently now he touched the chart lying in front of Abram Sharatsky with the pencil. "As a rule, their breathing is deep and fast. Ventilation is intensive." Dr Buteyko noticed that the assistants standing next to Sharatsky looked terrified and were desperately signalling to him but he couldn't understand why.

"And so, as a result, they experience hypoxia - oxygen deficiency," Buteyko finished in what was by now a very quiet voice.

"What did you say?!" The hysterical bellow resounded so loudly through the vaulted room that Dr Buteyko might have preferred it if the General had simply given him a thorough thrashing with his heavy soldier's belt.

"Say it again!!!"

It was only now, watching out of the corner of his eye as Sharatsky, in a frenzy, wiped white spittle from the corners of his full, fleshy lips with a dark blue



handkerchief, that Buteyko fully realised that before him stood a real, live General. A General - hardly one of the lower ranks in the army...

"Yes, sir." The Doctor involuntarily stood to attention. "Of course, I'm only a reserve lieutenant..." His troubled gaze came to rest on Sharatsky's gold epaulets.

"I'll briefly go through it again." Buteyko felt it was becoming a great effort to speak. "Here on this chart," on leaden feet he again walked over to the desk from which he had stepped back at the General's outburst, "just here," Buteyko decided not to pick up the pencil again, "you can see how hyperventilation and deep breathing aggravate tissue hypoxia in asthma sufferers."

"What - did - you - say?!!" Sharatsky unexpectedly threw his shuddering head backwards. "Are you out of your mind...?"

An ominous charge could be felt in the air. "How can you even utter such NONSENSE?!" Turning towards the obsequiously frowning assistants, humbly listening to their boss, the medical commander squawked, "What you get up to in your Laboratory is absolute codswallop!" The General's prominent Adam's apple bobbed up and down wildly.

"I'm going to phone right now," with his left hand he reached for the phone, while his right hand groped unconsciously for a non-existent holster on his right side, "and I'm going to have you shut down this instant. You'll be annihilated!" His cockerel squawk became a porcine squeal. "So that I never have to see or hear your hyper-... hypo-..." his right hand slashed through the air, "All your hypoxias again!"

His bulging, goggling eyes rolled upwards so that only the whites were visible. Buteyko looked with a sense of doom at the dejectedly stooped shoulders of the assistants.

"He who is angry is in the wrong," he said, seeking to shelter behind the proverb.

"I shall phone and have you shut down," Sharatsky began to leaf feverishly through a battered phone directory, "so that you cease to exist..."

How awful. Buteyko's blood ran cold. And this was the reaction of a man who for so many years had been engaged in the study of respiratory processes!

"Perhaps I should run through it again for you," Dr Buteyko said at last, rather impudently, rolling up his charts.

"Do you think we're going to sit here and listen to a repetition of such arrant nonsense?!" Sharatsky cried, although it was only a few minutes ago that he had been demanding that Dr Buteyko repeat what he had said...

"There's a word for people like you: charlatan!" the General spat with venom. "You'll be lucky if you don't end up in a camp in Siberia!"

"Very well, as you wish...." Having already given up hope Buteyko reached for the door handle. Even once he was out in the corridor he could still hear Sharatsky bawling after him from his office.

Ever-present well-wishers subsequently informed Dr Buteyko that the General was still raging feverishly a whole week after the Doctor had left. In fact there was some concern that he might have developed epilepsy.

Recalling this episode made Buteyko feel very morose. If the General were to get even a hint of Natalya Voronova's mission, they would have to kiss goodbye to any notion of a clinical trial of the Method in Leningrad. What else could they expect from the deep-breathing medical commander? (After his meeting with Sharatsky Dr Buteyko was in no doubt whatsoever that the General was a deep breather.)

Nevertheless, it's no good losing your nerve, he told himself sharply. God willing, things will work out alright. Only fools claim there is no God. He exists. There is no doubt that he exists! But not, of course, in the way people imagine Him... Let's just hope He will help Natalya...

CHAPTER 23

The Head Doctor is a human being. First session in the VEDB course. An attack suppressed. The faith of the patients

Unlike the doctor who had been so concerned about her at Akademgorodok, the scientific research and educational complex just outside Novosibirsk, Natalya did not believe in God. Consequently, neither could she count on His assistance. In medicine, as in sport, Natalya had become accustomed to relying on herself alone and she measured her confidence in her own ability by how prepared she was for any forthcoming challenge.

As for Buteyko's preparations, she would stake her life on them. Slackers and shirkers never lasted long with Dr Buteyko - the conditions at the Laboratory simply did not suit them. However, despite the military-style planning, all Natalya Voronova's efforts would have amounted to nothing were it not for Igor Feoktistov, the Head Doctor at the clinic that Academician Chugunov had selected for the trial.

Even were the Method three times as brilliant, patients still trust authority above anything else. So if the clinic management established an aura of mistrust around her work from the very start, Natalya alone could hardly hope to surmount the patients' resulting antagonism to her advice.

Were that to be the case, she would of course probably still achieve a certain amount of success, but on a considerably lesser scale. And it would involve considerably more hassle and garner almost no officially recognised results. Negatively-inclined management of a large medical institution will always find a way to invalidate the achievements of some unknown member of staff from a distant provincial laboratory in curing practically incurable patients - even if they achieve great results.

Interestingly, when it came to Feoktistov, Chugunov had miscalculated! People judge others by themselves and, had the Professor been in Feoktistov's place, he would no doubt have been quick to grasp the merest hint of his boss's unspoken wishes. Chugunov's attitude to the Buteyko Method needed no particular advertisement; the whole of his closest circle (including Feoktistov) knew his opinion on the subject very well. They had known ever since the time the Professor had met Buteyko himself. Chugunov's contemptuous "Breathe - don't breathe" had already become an established barb ("Do what you like - breathe, don't breathe - it makes no difference") in the armoury of the grovelling supporters of his own infamous 'compound powders'.

However, although he knew the disgraced Head Doctor was none too accommodating, it would never enter the Professor's head that Feoktistov might defy the powerful Chugunov school of thought which had so long enjoyed official recognition and approval among the upper echelons of the Soviet Union!

Chugunov did not simply rely on the tacit understanding of his sacred will, he also phoned the Head Doctor several times after Natalya had left his office and

in the course of mundane work talk, asked more than once for his impressions of Natalya and what exactly he planned to do when she arrived on their patch. On hearing that the Head Doctor had decided to set up two trial groups in which the clinic doctors managing the patients would also take part, the Professor screwed up his face as though he had bitten into an unripe lemon.

“Do you mean to take all those people away from their work?!” he roared down the line, casting aside any pretence of nonchalance. But then, remembering that Feoktistov was technically fulfilling his own instructions, he slightly altered his tone. “Look here, Igor,” he said, fatherly concern in his deep voice, “As the leading institute in this field, we naturally don’t have the right to dismiss any proposals like this out of hand, not even the most absurd ones. However, I consider it my duty to remind you,” here his voice became slyly ingratiating, “that you already have at your disposal a remedy which was trialled and approved some time ago. No patient has yet complained about the compound powders.” Professor Chugunov laughed a hoarse, sibilant laugh, but this time was forced to cover the receiver with his hand as he began to gasp for breath until his eyes streamed with tears due to a violent attack of coughing.

“So, bear in mind,” the Professor had somehow managed to get the attack under control and pursued his point to its logical conclusion. “Innovations come and go, but at the end of the day, responsibility for the condition of the patients in your clinic lies with the Head Doctor...” Chugunov waited for a response, but quickly lost patience and was forced to continue.

“Things will be clearer to you there on the ground, of course, but nevertheless, Igor... I think that two groups of patients, and especially the involvement of the doctors treating them, is rather extravagant with your chronic staff shortages. Half that input would be more than enough without diverting your doctors from their immediate responsibilities. But it’s up to you, old chap, it’s up to you.” Detecting evident dissatisfaction in the staccato replies from the other end of the line, the Professor wound up the conversation. “You’re in charge, after all...”

“Bloody Feoktistov! Devil take him!” Chugunov swore to himself once he had hung up. Him of all people, the lousy labour camp veteran. Just one word and the authorities would be ready to make him understand... It seemed Feoktistov had already forgotten how many times he’d been called in front of the security agencies since his release from the camp. Chugunov recalled Feoktistov’s explanation long ago about how he’d saved the lives of Soviet people back when he was in the concentration camp. They had been dying like flies, apparently, with no medical care whatsoever.

But what I want to know, matey, Chugunov muttered to himself, is what brought you and your good deeds to that Nazi concentration camp in the first place? The rules are quite clear: Soviet soldiers do not surrender themselves alive to enemy captors...”

Chugunov actually spat with vexation. Feoktistov had forgotten all about it, the scoundrel, including the fact that they’d employed him in a respectable post -

even with a record like his. And the fact that he'd received enough assistance when he needed it to ensure he wasn't banished to a Soviet labour camp in Kolyma unlike thousands of others in his position. It beggared belief that he was now planning to test this quackish Method on two groups of patients! And take doctors away from their regular duties. The Professor ground his teeth.

And all this rather than make the snotty girl feel she was an outsider here. Well, Chugunov thought to himself as he made a note on his pad. We've put up with you for a long time, Comrade Feoktistov. We've protected you as best we could to the best of our ability. But it's pearls before swine, it seems...

Let him organise 10 groups for her - in the end it's not the patients who decide! And, as far as the Head Doctor's stubbornness was concerned, if he didn't come to his senses the relevant bodies would make their own findings in due course... Chugunov slammed his notebook closed and rang briskly for his secretary.

Of course, Natalya knew nothing of this when she finally met her Leningrad patients for the first time, after some difficult preparatory work organising the trial groups. When seeing her charges at close quarters for the first time, Natalya felt at something of a loss. To put it plainly, she felt rather scared.

In the small room a collection of elderly, extremely sick people was ranged on chairs, stools and a couch. The majority were women. Of course, when she had initially looked through their notes with the doctors she had already had an idea of the sex and age of the patients. She knew that the majority of them had endured the terrible Siege of Leningrad. However, that was on paper. Now, hearing their wheezy, irregular breathing, which seemed to make the very curtains at the windows flutter, and looking into their grey, wrinkled faces, gaunt with years of deprivation and illness, she was suddenly brought up short by the harsh realisation of the huge responsibility she bore.

Eighteen pairs of eyes, bloodshot with affliction, looked at her as though they gazed upon their last hope. They had already seen so much in their bitter lives, these Leningrad women, that it seemed nothing could surprise them any more. Having lost numerous relatives during the siege and themselves come close to succumbing to the harrowing torment of starvation, they had survived and had awaited happier times.

But, alas, now they were dying - for the experience of constantly being woken throughout the night by terrible asthma attacks could hardly be called living. If only it was just at night, but they were afflicted by attacks during the day as well. At home, out and about, at the shops, wherever they went. These patients had tried everything, including Chugunov's famous powders. There was no-one in the Soviet Union left for them to turn to. Professor Chugunov's authority seemed incontestable and unshakeable, but it turned out that asthma could not be cured by authority alone...

Now, then, standing before them was this slim, pleasant-looking young woman, who might have passed for a student. She had no authority whatsoever, yet the

patients could not take their eyes off her. This doctor, so the rumours had it, had brought with her a new, previously unknown remedy to their affliction. It didn't matter to the patients whether she was young or old, whether she was dressed in the latest fashions or in some coarsely sewn, home-made garment. The important thing was that the doctor embodied HOPE!

They had such vast experience of life and had endured so much disappointment along the way, with fruitless attempts by the medical profession to defeat their accursed illness which insidiously tormented them day and night. With all this, they might well have been expected to be extremely sceptical. And yet, against all the odds, they held on to hope!

Their hope was like that of a child who has got into trouble and pins its hopes on the chance appearance of a kindly grown-up. What else was there left for them to do? Outside the confines of the office only one thing was waiting for them - a cruel and painful death.

Natalya glanced doubtfully at herself in the large mirror on the wall immediately opposite her, above the bluish, ceramic wash basin to the left of the door. She had not yet done up the buttons on her white coat and beneath it was visible a meticulously pressed black jacket and a starched white blouse, lightly pleated across the chest. And above this were her large, wide-open eyes. With an imperceptible movement Natalya adjusted the back of her neckband and fastened her white coat with trembling fingers.

"Well, then..." She looked at her little wristwatch. "I don't think anyone else is coming, so we can make a start."

It was only that evening, when she had returned to her room at the hotel and had begun to feel a little calmer, that she was able to reconstruct in her mind the different parts of her first uncomfortable but exciting meeting with the Leningrad patients.

... "First of all I want to tell you about the amazing scientist and physiologist, Dr Konstantin Buteyko, who lives and works far away from here, in Siberia," she had begun. She told them about the combine-complexator and about the incredible diagnostic work which could be undertaken with it. The eyes of her audience burned. Equipment - that was something concrete. Naturally, every one of them wished that they might one day have the chance to be examined by the wonderful physiological complexator.

However, when Natalya once more stressed that the Method developed by Dr Buteyko and his colleagues at the Laboratory did not involve medication, the atmosphere in the wintry semi-gloom of the office became very quiet indeed. The silence was broken only by a sudden trickling noise made as a drip from the tap fell into the wash basin.

"What do you mean, doesn't involve medication?" asked a heavily stooped, grey-haired woman with a dry cough who was wearing an old grey knitted

cardigan and was seated close to Natalya.

"And you don't use hormones?" exclaimed an unusually thin woman sitting just behind her, holding a brown handbag in her lap.

Really! These hormones! Despite the fact that it was very warm in the office, Natalya shivered slightly. Medication containing hormones was experiencing something of a boom among patients, although it had only recently been introduced into wider medical practice for the treatment of asthmatics. Hormones were certainly effective to begin with. However, they were essentially deceptive and the modest benefits of using them were soon cancelled out by serious problems for the patient who became caught in their net. (Buteyko followed medical innovations very closely and this was something he had observed immediately.)

"Of course," Natalya gathered up her courage, "in many cases hormone medication seems to help to control asthma attacks."

"Exactly. I couldn't get through a single night without my tablets!" again she was interrupted by the woman in the knitted cardigan.

"Excuse me, what's your name? I'm afraid I've not yet memorised them all," said Natalya.

"Friedman. Nina Friedman," the patient responded quickly.

"Well, Mrs Friedman," Natalya looked sideways at the clinic doctors who were also present at this session, sitting with open exercise books and pens in hand. "The thing to understand is that hormones have a wider impact on the body."

"What do you mean?" Deep furrows appeared on Mrs Friedman's waxy forehead which was marked by dark blemishes.

"Well, they destroy the adrenal glands for one thing," Natalya pronounced firmly, turning away from the clinic doctors who sat still and tense in their places.

"You're saying these tablets destroy things?" Nina Friedman took the cherished box out of her bag with trembling hands. "You can't get these anywhere! You have to have a prescription and it has to be stamped twice... and you have to have connections." She looked enquiringly at the flame-haired doctor sitting a couple of feet away from her. "Dr Buyanova will back me up."

"Nevertheless, the effect of the continued use of medications containing hormones is not positive," Natalya pressed on, trying to be as tactful as possible without diverging in any way from her planned course.

"But we monitor the dose they take." Dr Buyanova entered the conversation apparently seeking to justify herself, though she sounded rather embarrassed. Nevertheless, the offended expression in her dark eyes spoke much more

eloquently than words. Look here sweetie, she seemed to be saying, why exactly have you taken it upon yourself to educate the patients? You're breaking the rules of the game. Natalya could read it clearly in the doctor's eyes.

Yes, she knew perfectly well that representatives of conventional medicine prefer to make sure their patients remain docile, unquestioning lambs. They don't tend to expand upon the side effects of medication. Moreover, and it's no use pretending otherwise, they themselves don't always know about the side effects. Also, it is not common practice in the medical world to educate patients about all the finer details of the destruction wrought on the body by their conditions.

But this was where the Buteyko school differed from the generally accepted conventions - practitioners endeavoured from the outset to transform their patients into competent partners who understood everything and knew absolutely everything there was to know about their illnesses! Only then could the patient be expected to follow the Method. The Method requires willpower and where will that willpower come from if the patients know nothing whatsoever about the processes taking place inside their bodies due to their condition.

"Don't be afraid to tell patients the truth!" Buteyko impressed upon his students. "Only perverse and deceitful Western medicine blurs patients' eyes with ignorance. If the patient doesn't know the true extent of the danger of their illness, they will never be able to combat it effectively! And we can't do our job without the patients' help. We don't torment them with tablets. We call into being the natural forces lodged deep inside them since time immemorial."

... "Of course," Natalya looked keenly at the doctor who had taken exception to what she was saying. "Doctors do try." She placed particular emphasis on the word 'try', "They try to monitor the dosage of hormone preparations. But, unfortunately," she again turned to Nina Friedman, who still clutched the precious packet of tablets, "our medicine is still dominated by very rough and ready guidelines. We say, 'Take three tablets a day for two weeks.'" Natalya noticed the red-headed doctor wince and lean over to whisper something to her fair-haired colleague. "But it could be that after a day you only need to take two tablets, not three. On the third day you might need just one!"

The patients had pricked up their ears and now hung on her every word.

"In order to determine the necessary daily dose of a medicine, the patient would either have to be able to be examined at any time of day or night by Dr Buteyko's complexator in Siberia (which is obviously unrealistic) or we must break the established guidelines for taking medication, which means the patient must study the work of Dr Buteyko.

"Don't be surprised by the word 'study'," she said, quickly anticipating the women's interjections. "Dr Buteyko's Method is, in essence, the proper study of a healthy lifestyle. So, Mrs Friedman, you cannot get rid of your asthma with those hard-to-come-by pills of yours and an overdose could ruin your adrenal glands

for ever..."

"I have a whole load of other problems apart from asthma," Nina Friedman sighed, putting the tablets back in her bag and appearing to become even more stooped. "I've got angina and arteriosclerosis... well, what haven't I got?"

"This is a very important point in our discussion," Natalya broke in, deliberately addressing the two clinic doctors present in the office. "For some reason the Buteyko Method is often thought primarily to be just for the treatment of asthma. This is not the case." Now she turned back to the elderly asthmatics who had begun to talk heatedly amongst themselves. "This is most definitely not the case! The volitional elimination of deep breathing cures hypertension, angina and dozens of other conditions caused by overbreathing."

Here Natalya gave full rein to her temperament. She told the patients how Dr Buteyko had come to make his Discovery. She explained again in detail what exactly was involved in the Method developed by the unconventional scientist (having previously mentioned it only in passing at the start of her talk). She gave them a number of striking examples of how patients who had been examined by the combine-complexator had been cured of the most widespread diseases. But before plunging into the maze of theory she did the deep-breathing test with them. As always, the effect of this procedure was compelling. Her audience was, without exception, overcome by coughing, dizziness and the onslaught of full-blown asthma attacks. The red-haired doctor became so dizzy that she nearly fell off her chair.

"In future you should be on the look out for cerebral haemorrhage," Natalya warned her, cautiously. "The deep-breathing test is a sort of express diagnostic procedure. It shows up weaknesses in your body that you'd never even suspected."

"I got this shooting pain in my liver," Dr Buyanova's blonde colleague exclaimed with wide eyes, clutching at her right side. "I've never had any trouble with my liver!"

"You see, Dr Kuznetsova, the Volitional Elimination of Deep Breathing is not without its value for you too! It'll clean out your bile ducts much more effectively than any choleric."

At that moment, the door was unexpectedly pushed open and a tall, stout old man began to make his way into the room, somewhat hindered by the patients who were sitting tightly packed round the doorway.

"Where do you think you're going, Mr Kurochkin?" Dr Buyanova leapt up as if she had been scalded. "Who gave you permission to leave the ward?"

Clutching at his heart with the crooked fingers of his left hand, the old man guiltily blinked his cloudy, watery eyes.

"Dr Buyanova," he said in something approaching a croak, his agitation bringing on a fit of coughing, "I beg you..." He faltered in the doorway. "Please let me join the group..."

"But it's not my decision." The doctor blushed and glanced at Natalya. "We discussed your request before. It's your age, Mr Kurochkin..." she said reproachfully. "I explained to you: no-one over 60..."

"Miss," Ivan Kurochkin took a couple of hesitant steps towards Natalya, "don't worry, miss, I'm quick to learn."

Suddenly his shoulders began to shake. The old man clutched at his chest with both hands and collapsed into a chair cleared for him in an instant by the women who had immediately understood what was happening. A harsh cough convulsed the old man's large frame, pinning him to the chair. Kurochkin's mouth opened wide and he gulped wildly, like someone on the point of death, desperately swallowing air. The muscles in his neck stood out like knotted cords with the pressure.

Setting aside the sample diary she had earlier prepared for her charges, Natalya leapt to the sick man's side. The patients clustered round Ivan Kurochkin in a panic. They understood exactly what such a serious attack meant for someone over 70.

"Send for someone with a syringe..." cried Olga Buyanova, flinging herself towards the door, having seen the state Kurochkin was in.

"There's no need," Natalya stopped her. With a strong movement, using both hands, she straightened out the huddled figure of the old man. She gently pushed him back as his spine attempted to curl back again and in a loud voice issued several commands.

"Close your mouth! Close your mouth now and relax. Breathe in and out but only through your nose. Don't tense your stomach, don't tense it."

Catching the moment when the old man breathed out, Natalya used the fingers of both hands on the lower part of his ribcage to hold him in position. "Now, don't breathe for three or four seconds," she instructed peremptorily.

"Now breathe, but only through your mouth and not deeply," Natalya allowed her patient after a short pause. "The reason you had this attack was because you breathe too deeply. Gently! Breathe out. That's right. Gently." She pressed her point home, more calmly now.

"More gently. Relax. Don't breathe," Natalya repeated the control pause. Then, having allowed the patient to go through five breathing cycles, she went back to the control pause again and repeated the whole process several times. After four minutes the attack had passed.

"Is your breathing easier now?" Natalya asked the old man who had come to himself again.

"The breathing's better and my heart felt so much easier straight away," he replied, looking at her with great relief and happiness in his eyes. "And that accursed, unbearable stabbing, stabbing feeling's gone."

"I should think so! If instead of the ideal five litres of air per minute you're gulping in 30," Natalya responded in a loud voice so that everyone present could hear her.

"My dear," the old man began to slide down from his chair, clearly intending to get down on his knees. "Please take me! For the love of God, take me on to your treatment programme!" The wide striped sleeves of his hospital pyjamas began to flutter as if in a breeze. "I won't die on you here in your sessions." He cast a glance at the still frightened Dr Buyanova. "I got through two world wars without dying and I'll survive this too with your help. Just take me, just say you'll take me, please! I definitely won't hold out much longer in this hospital." Again he looked at the red-haired doctor. "Take me on, my dear. Have some compassion..."

It was an extremely delicate moment. Natalya had already discussed Mr Kurochkin's case with Olga Buyanova, who herself had known him for less than a year. She had no objection to his being included in the trial group, but nevertheless she had told Natalya about his critical condition. A veteran of two world wars who had been gassed by the Germans back in 1914, the 78-year-old Ivan Kurochkin was considered by the clinic to be a completely hopeless case.

"His asthma has apparently been simmering away since way back then," Dr Buyanova explained quite openly to her Siberian visitor. "How they could then send him to the front again in 1941 I just can't fathom. Now it's not just that his lungs are ruined. His heart's good for nothing, his blood pressure is very unstable. He has spastic colon, colitis, constipation and severe mobility difficulties. Not long ago we had to admit him as an in-patient again. Well, there you have it... He heard rumours about your group even before the sessions began. He pleaded like a child. But, knowing your age limit," she sighed deeply, "I refused point blank."

Natalya recalled these words of Dr Buyanova during their earlier discussions about the make-up of the group. The doctor had bowed her head, as if to hide her eyes. "Of course, to take such a sick man on in the group would be knowingly setting ourselves up for failure. We can't give him a new heart. We can't stitch his lungs back together. And he could kick the bucket at any moment... We're all aware of it. We're really only keeping him on the ward out of pity. There's nothing we can do for him. We're just trying to ease the inevitable end a bit."

Recovered now from the attack, Kurochkin stared at Natalya Voronova as at an icon. His imploring gaze made her feel uneasy. If only this had been somewhere deep in the provinces, one to one, she could have risked it. But here... during this

semi-official trial of the Method they had had to fight so hard to get! Here she just couldn't take the risk. She simply didn't have the right. They had definitely agreed at the Laboratory not to include anyone over 60 in the group. And if something were to happen to Kurochkin, Chugunov's minions would instantly forget about the underlying conditions of this veteran of two world wars. 'Killed by the Method!' they would say. And what would Buteyko say then...

Deep in thought, Natalya started once more to flick through the pages of the patient diary she held in her hands. This was an extremely delicate moment and she had some hard thinking to do.

"Don't send me away, I'm an old man..." Noticing the lengthening pause, Ivan Kurochkin, with tears in his voice, reminded her of his presence, placing his hands on his belly.

That was the phrase which decided her. OK, she couldn't take the risk, yet to send this extremely sick man packing (and how could you describe it as anything else) was also impossible after he had somehow managed to make his way to the teaching room and what he believed was his only hope of deliverance, with only the assistance of unknown well-wishers. Everything she had wanted to go on to tell the group of patients after the deep-breathing test - everything about the theoretical side of the Method and all the best examples of people being cured of serious illnesses which they had observed at the Laboratory - all this now stuck in her throat.

How would these gravely ill people sitting before her take what she had to say if she refused this unfortunate invalid who had twice risked his life fighting for his country? Her internal struggle would be nothing to them. All they would be left with would be doubt about the effectiveness of Dr Buteyko's Discovery, sown in the very first minutes of their acquaintance with her and with the Method. No! Natalya could not allow that to happen! Moreover, purely on a human level, she could not let her mouth form the words to give Kurochkin his marching orders.

"Hmm, what are we to do with you?" Natalya noticed how Olga Buyanova, embarrassed by this tricky episode, perked up. "Alright, you can stay. But if you do, you must make sure you stay on to the triumphant conclusion..." With a gesture she halted the old man as he attempted to rise and smother her in expressions of gratitude. "We don't accept defeat."

She had made a difficult choice. Yet, once she had made it, the patients proceeded to listen to her with redoubled attention in the time left before the second group arrived. Naturally, they would not all without exception become unwavering supporters of the Method from the very first day. There were doubters and those who expressed frank disbelief in this treatment 'without medication'. That was something Buteyko's colleagues were used to.

But in one respect Natalya had doubtlessly won a victory. At a basic human level, she had absolutely and completely won the liking of these patients (and this was something which was of considerable importance in the treatment

process). The concerns of the doubters she would be able to dispel in the future, but it would have been considerably more difficult to overcome the group's antipathy towards their teacher, had it emerged at such an early stage.

At the end of the session Natalya gave each of the patients individual exercises to do as homework. Her general recommendation to all the patients was to spend no less than two hours per day on them (and ideally three). They could perhaps do it for 10 minutes every hour, but slightly different approaches were of course suitable for different patients. So, for instance, Natalya counselled those who suffered very frequent attacks to do the exercises more often and those with heart problems she asked not to overdo the maximum pause.

She was especially pleased that the clinic doctors had joined in with the practical work from the very first session, attentively following what should be done with the patients and how.

"So I shouldn't take any of my medications any more?" Nina Friedman asked Natalya anxiously, rubbing her flaccid cheek with her hand and sounding perplexed.

"No! You shouldn't stop taking your medication suddenly like that," Natalya said categorically. "For the first while, if you feel that you're not managing the attacks with the exercises alone, take your medication when you need it. But you'll find you need it less and less day by day. It's best to decrease the dose by a quarter each time."

Natalya then showed the women how they should fill in their diaries and with that she brought the session to an end. Of course, the first session had lasted rather longer than the intended hour. However, practice showed that this was always justified. People were encountering an extremely unusual, unconventional method of treatment for the first time and so it was important not to cut the time short. These were costs which would later be repaid with interest.

CHAPTER 24

Dealing with night-time attacks. What willpower can achieve! Learning to relax and to measure the pause correctly after the exercises

On the whole, Natalya Voronova was satisfied with herself. Even the first step, which was usually the hardest, had not gone badly. But what of the Kurochkin issue? She was seriously concerned about him. His worn-out body might misfire at any moment and then... She would not be forgiven for a fatal outcome.

It never occurred to Natalya that the fateful invalid would in fact become her most brilliant success. She never imagined that a time would come when, at a critical moment for their Laboratory, reporters trying to defend Buteyko from the attacks stirred up by the Ministry of Health would write about Kurochkin in the newspapers.

The risk she ran by accepting him into the group was considerable. But the payback in the event of success was also not to be underestimated. However, all that was still in the future. For now the day-to-day life of Leningrad in February stretched out before her. The number of attacks suffered by Natalya's charges began to reduce. After two days many of the patients hit a period of sanogenesis as the body cleansed itself.

The next stage in the campaign for complete recovery was to do battle with the nocturnal asthma attacks. This was where the fun and games would start! The Method, which was not easy to master during the day, had to prove itself to the patients at night too. It would be no easy matter!

"I didn't feel too bad during the evening," Mrs Friedman announced, leafing through her diary. She already looked brighter and her shoulders appeared less stooped. "But at three o'clock in the morning I got this feeling as though my throat was being compressed. I woke up covered in sweat. My heart was pounding and I was gasping for breath, almost fainting. I tried to use the Method again to stop the attack, but I couldn't do it." She guiltily averted her swollen eyes from Natalya. "In the end I had to get the hormones from my bedside cabinet, but I really didn't want to!"

"I did explain to you," began Natalya. "If you want to get better, you have to forget about getting eight hours sleep for the next month! If you're getting an attack at three in the morning, you need to get up at two, put your feet on the floor, get into position and start doing the exercises. Then you'll be fine. The attack will go. You'll scare it off! For the time being you should all be practising the Method three times a night. At one o'clock, then in the middle of the night an hour before the anticipated attack and finally at five in the morning."

"But why at five o'clock?" the sleep-loving Mrs Friedman asked loudly.

"Mr Kurochkin," Natalya turned to the old man, who was already visibly stronger. "Can you explain to Mrs Friedman why you need to do it at five?"

"Yes, it's because your attack could shift forward from three o'clock to the morning," the old man replied jauntily. He was actually looking appreciably younger now and his memory seemed to be better than that of Mrs Friedman, who had already heard all this from Natalya. "Those attacks are tricky things!" Kurochkin continued, screwing up his milky eyes. "If you manage to hoodwink them at night, they lie in wait for you in the morning."

"You can't last for long without sleep," the disgruntled Nina Friedman twisted her dry lips wryly. "That's what the night's for - for rest. Anyway," she deliberately turned away from the old man to address Natalya, "the Buteyko Method is helpful, of course." She looked at the women sitting near her who had immediately begun to nod. "We're all starting to sense it for ourselves. But tell us, are we really going to have to do the exercises every hour for the rest of our lives? Including having to get up at night for it? How much willpower do you have at night? How much progress are we really likely to make during the night?"

Mrs Friedman felt a sense of rising anxiety which was making her start to overbreathe and so she adopted the Buteyko position. She was a very diligent student. In terms of the seriousness of her illnesses, she ran Kurochkin a close second. But the night-time waking troubled her a great deal, as it did many of her fellow sufferers. It is often said that older people really don't want to sleep much, but this isn't true - they do! And the generally accepted convention - that in the not too distant future they will be able to sleep to their hearts' content - is hardly reassuring.

Natalya understood that in this instance it would not work simply to tell them they must do the exercises at night. She would have to do something to convince her patients to *want* to do it. She made up her mind...

"OK!" she pushed an unruly lock of hair off her forehead. "I'll explain. I'll explain to you just what can be achieved even at night and why you shouldn't discount it. But first of all," Natalya noticed how the stooped Ivan Kurochkin sat up straight under her gaze, "let's be clear about something: at the moment you can't sleep at night anyway without doing the exercises... What sort of rest is it when suddenly, in the middle of the night, you're pitched into that bottomless pit of suffocation?"

"That's true," grunted Kurochkin in confirmation, wiping his moustache with his hand. "You pitch into that hole and you think your heart won't stand it..."

"There you are, you see!" Natalya took up the narrative, pleased to receive Kurochkin's support. "You don't get to sleep properly either way."

"There's no escaping it. You wake up when it's got you by the throat, " the women echoed in agreement.

"But if you start practising the Method an hour before the attack and measure your control pause from time to time while you're doing it, then you're

guaranteed to sleep between those sessions! You may only get to sleep two or two and half hours until the next session, but it's guaranteed. And you won't have to keep on doing it. Once the night-time attacks stop, you'll be able perhaps to drop the session at one o'clock in the morning. Gradually, you'll come to be able to drop the night-time sessions altogether." The patients smiled, pleased at this turn of things.

"Now I'd like to talk about what can be achieved at night. At the Laboratory we once had a very sick man called Viktor Sablin..." Natalya fell silent for a moment or two. The example of Sablin was without doubt one of the most remarkable recorded during the existence of the Laboratory of Functional Diagnostics. Just a simple recounting of this unusual case had a very tangible effect on any audience. However, Buteyko insisted that the facts of the case be dealt with extremely carefully. Throughout his long years of practice Buteyko had only seen three or four similar cases - and he had made his famous discovery back in 1952.

"They confirm that an outcome like this is possible in principle, but is extremely difficult to achieve," he had said on more than one occasion to a small circle of like-minded associates. "If it seems to be of crucial importance, you can tell your patients about these cases, but you must warn them at the end that not everyone can hold their breath with such exceptional force of will. Indeed, it will often lead to a negative outcome. Also, it poses particular risks for patients with heart conditions. Ultimately, patients are cured not by holding their breath but by reducing the depth of their breathing. It's true, the depth of inhalation can also be reduced to extremes, but that, as the saying goes, is for the chosen few..." and Buteyko would chuckle enigmatically.

"This seriously ill patient was called Viktor Sablin," Natalya broke the attentive silence in the crowded room unhurriedly, as though she was still pondering the matter. "He was a short, stoutish man of about 45. He came to us at the Laboratory of his own accord - he wasn't dragged there by anyone. He simply felt he had nowhere left to turn, he was so tormented by his illnesses. He was a lathe operator at a factory in Novosibirsk and by the time he turned 45 he had managed to damage his health to such an extent that there was practically nothing more any of the hospitals in this major Siberian city could do for him.

"While you're listening to me, don't forget to practise the Method," Natalya reminded her patients who were becoming lost in her story. "Adopt the position. Relax. Take your pulse and measure your control pause as I taught you. And breathe gently. Gently." She corrected the posture of one of the patients sitting nearest to her by adjusting her shoulders.

"Everyone sit up straight, nice and straight. Relax. Your stomach should be soft and relaxed, not tense."

Natalya checked to see how well the patients in the front row were following her instructions.

"Ischaemic heart disease, severe angina and serious arteriosclerosis made it

impossible for Viktor Sablin to lead a normal life," Natalya continued, having reassured herself that the group was not losing precious learning time.

"I wish I could convey to you the dogged persistence with which Sablin practised Buteyko's Method! The sweat just ran off him, he worked himself so hard doing the exercises. On seeing such diligence Dr Buteyko, despite being an extremely busy man, took time to give Sablin personal instruction.

"And yet Sablin had an incredibly tough time of it. Having started with a control pause of five seconds, over the course of two and a half weeks he managed, with great difficulty, to increase it to 12 seconds. In the normal way, to double your pause in that short a space of time would be an impressive result. But of itself a control pause of 12 seconds indicates that the level of carbon dioxide in his body was only slightly above 4%. That means it was only about 0.7% above the fatal level."

Natalya used her pointer to indicate the relevant column of the table of pulmonary ventilation criteria (showing the correlation between the control pause, alveolar carbon dioxide and patient health) which hung behind her.

"The patient's body had been terribly damaged by deep breathing, so many of the mechanisms essential for life were seriously impaired. And although, unsurprisingly, patients who are gravely ill generally progress with the Method more quickly than patients with less serious conditions, nothing like this had been seen before. The tremendous willpower of this individual was incredible, exceeding all expectations. What's more," Natalya looked at Mrs Friedman who was holding her breath, "this extraordinary phenomenon happened, paradoxically, during the night - the long, deep Siberian night.

"Seeing that he was lagging behind the others in his group, Sablin redoubled his efforts. By the end of the month his control pause had gone up to 25 seconds and his maximum pause was 45 seconds. When he succeeded in raising his CO₂ levels to 5%, the quality of Viktor Sablin's life improved considerably, but he was still unable to completely rid himself of angina attacks, and this was what he complained of the most.

"As you already know," Natalya turned to the table again, "A person only becomes healthy when they have accumulated at least 6.5% carbon dioxide, that long-disparaged but, as it turns out, life-giving gas.

"Sablin had already left our Laboratory and was practising the Method on his own at home. But the nocturnal angina attacks were still making themselves felt from time to time. Then, on the night of 17 January (a date Viktor Sablin would remember for the rest of his life) a miracle occurred." Natalya paused. "Yes, there really is no other way to describe it. It was a genuine miracle. And I'd like to point out," she raised her voice, "it was not an asthmatic who experienced it, although our enemies don't want to hear about anything other than asthma. Indeed, they don't even recognise the success of the Volitional Elimination of Deep Breathing in treating asthma - much less a patient with heart problems!

“What happened with Sablin was as follows.” With an awkward movement Natalya almost knocked the jar of clean spatulas off the table, causing the women sitting nearby to jump in surprise.

“That night Viktor Sablin woke up at half past one. For several days he had not been troubled by his heart while he was asleep, but now he suddenly experienced an acute angina attack. Sudden chest pains and an increased heart rate overwhelmed him to such an extent that, furious with his insidious persecutor, Sablin took a snap decision: either the angina attack would choke the life out of him that very second or he would die, but he would not take a breath until the attack stopped!

Pulmonary Ventilation Criteria							
Condition of the Body	Type of Breathing	Extent of Dysfunction	Alveolar CO ₂		Control Pause (CP) (sec)	Maximum Pause (MP) (sec)	Pulse per minute <small>thebreathingman.com</small>
			%	mmHg			
Super Endurance	Superficial	V	75	54	180	210	48
		IV	74	53	150	190	50
		III	73	52	120	170	52
		II	71	51	100	150	55
		I	68	48	80	120	57
Normal			65	46	60	90	68
Disease	Deep	I	6,0	43	50	75	65
		II	5,5	40	40	60	70
		III	5,0	36	30	50	75
		IV	4,5	32	20	40	80
		V	4,0	28	10	20	90
		VI	3,5	24	5	10	100
		VII			DEATH		

“At the point of ordinary exhalation he held his nose and exerted all his willpower, and, I should emphasise, Sablin was a man with extraordinary willpower. By this point his maximum pause was in the region of about 50 seconds, but that was not enough to save him! When the hand on the stopwatch crept up to this figure, which was his absolute limit, he still didn't let go of his nose...

“God only knows what Viktor Sablin experienced next, but even when he had been holding his breath for nearly 80 seconds, he still continued to hold it. Then, suddenly, when the length of the pause reached a minute and a half, Sablin felt a sort of jolt inside his head. It felt as though someone had flicked a switch and at that very second the attack ceased. He let go of his nose, which he'd been holding with his right hand, and for

a few minutes sat motionless.

“The chest pains did not start again, but that was only the half of what he had achieved. The most important thing was something different,” Natalya's audience hung on her every word. “Viktor Sablin felt that after that internal click he began to breathe in a completely different way! He no longer had to restrict the depth of his breathing consciously. Of its own accord his breathing had become imperceptible and inaudible. What had happened was what Dr Buteyko had long believed was entirely possible and what one should aim for. But it was something which was so far only possible for a few individuals who had

the necessary willpower. What had happened to Sablin was that the respiratory centre switched from regulation by oxygen to regulation by CO₂!!!

"It was as though Viktor Sablin had been transported back to the time when the Earth's atmosphere was dominated by carbon dioxide and cellular respiration was naturally attuned to regulation by CO₂, that component of the Earth's atmosphere which is so important for life. Moreover, he no longer needed to resort to special breathing exercises. The only thing he still had to do was to exert preventative external control over his breathing."

"Oh my goodness!" A rather spare woman sitting next to Mrs Friedman could not contain her excitement. "That's what you need, Nina," she continued, clapping her neighbour on the shoulder. "Then you would not need to get up during the night or do the exercises during the day either!"

Mrs Friedman's cracked lips curved into a good-natured smile.

"Well, and you too, Valya." She also nudged her neighbour with her elbow. "I bet you wouldn't have anything against it..." The two elderly women, though worn out by their afflictions, laughed amicably. "So what do you have to do to achieve results like this Sablin?" Mrs Friedman asked, shifting in her chair.

"Let's agree on one thing straight away," said Natalya, frowning and turning the stopwatch over in her hands. "No trying this out at home! I want you to do the exercises just as they've been taught during these sessions. I want to reiterate that it's not the pause which will cure you but reducing the depth of your breathing. Holding your breath to excess like that is harmful and, for people with heart conditions, extremely dangerous." Natalya suddenly felt very warm. "Viktor Sablin was lucky. He crossed a dangerous line and pulled it off. But the heart might not stand it - you could do irreparable damage.

"If you practise the exercises correctly, you will never be at any risk. But extreme overloading of the system is always fraught with the danger of unforeseeable consequences..." Natalya wiped her damp brow with the sleeve of her white coat and continued more calmly. "I told you all this in order to demonstrate that it is possible to achieve a great deal at night. The route Sablin took was that of a one-off individual with rare reserves of willpower. We are better off following a more well-trodden path. The most important thing is not to stop and not to take breaks voluntarily. I can assure you that the end result will be more or less the same. After a few years of perseverance you won't need to be doing the exercises on an hourly basis.

Noticing the drawn faces of her patients, she smoothed over a tricky point. "In fact, it won't even take years - even after a couple of months the frequency of the exercises can be reduced to a third, although the length of the exercise sessions themselves will be increased slightly. After a few years you really will start to breathe almost like Viktor Sablin, by which I mean without having to exert any special effort. Your respiratory centre will need to re-set the way it works.

"Of course, you will still need to do a couple of exercise sessions each day, morning and evening, as a minimum. But that's nothing compared with the hourly sessions you need to do at the moment."

The patients brightened visibly.

"But still," a rather desiccated-looking, bare-headed woman in the back row stood up, "was this Sablin really a one-off?"

"Of course not! That's not what I meant," Natalya replied, slightly rattled. "There have been other cases. But not many. Bear in mind, it's not as though we've yet had tens of thousands of patients passing through the Laboratory. If use of the Method were to become much more widespread, then there would probably be more examples of this kind. For instance, I personally also saw what Dr Buteyko did with another man, a pilot. I would say he by no means lagged behind Sablin, either in terms of willpower or what he achieved with the Method.

"Dr Buteyko doesn't usually worry that the patient might reduce their breathing too much, to the point of being blue in the face. There are very few people who do that, so it's very rare for him to cut someone short in their efforts. But even Buteyko felt he had to step in to stop this pilot!

"He was a tall, handsome man of 38 and was beside himself with worry due to severe hypertension. He had already been taken off flying duties permanently and had been registered disabled. His systolic blood pressure sometimes rose to around 200. As a result he seized on the Method like a drowning man clutching at straws. He began to hold his breath with such force that first his finger nails, then his lips turned blue. I had never seen anything like it at the Laboratory.

"He actually managed to increase his pause from 10 seconds to 100. Even Dr Buteyko was shouting, 'Stop! Stop!', but the pilot still continued to hold his nose," Natalya smiled almost imperceptibly as she remembered this episode.

"After that his hypertension started to improve quite quickly. Within a month he was back in the cockpit. He really was a man on a mission - a cherished and desperate mission! But you should remember, pilots are in any case a breed apart, with great strength of will. Weak-willed people don't get taken on as pilots.

"How long do we have left? My watch seems to be on the blink." Natalya unexpectedly interrupted herself.

"There's 25 minutes left," Mrs Friedman prompted obligingly.

"Excellent!" Natalya picked up the stopwatch in her right hand. "Enough of these digressions. Let's leave supernatural feats to supermen and women and return to the world of ordinary mortals. Take up the position again. *Legs, legs, Elizaveta!* Your legs should be slightly apart and your feet tucked just under you. Your legs should not be crossed," she raised her voice slightly at one of her

younger patients who had evidently forgotten.

"Why should you not cross your legs?" she addressed her now serious and attentive audience.

"Because it constricts important energy centres in the groin and places unnecessary strain on the heart!" Kurochkin rapped out in military style, clearly having taken in and assimilated the previous sessions.

"If you really have to," Natalya added, relenting slightly, "as an exception you can place one ankle on your opposite knee. Dr Buteyko allows patients to use that position as well. But I hardly think it's a position many of you here would be comfortable with," she continued.

"Mrs Friedman! What did I teach you to do with your arms? They should never be crossed either! Your hands should be placed loosely on your knees. Mr Kurochkin, why should you not cross your arms?" Again she turned to her gifted student.

"So that the biofields don't intersect." This time Kurochkin answered rather more quietly - few people yet really believed in biofields.

"Now, everybody relax, let your stomach go loose so that it becomes soft. How do you relax your stomach muscles and your diaphragms at the same time?" Natalya didn't wait for a reply. "You place the left hand in the region of the belly button and on the in-breath pull in your stomach - tense your abdominal muscles. Then let it go again as you exhale. You will relax as you do it.

"Elizaveta!" She went over to the slim, red-cheeked Russian teacher who still dressed almost like a school girl although she was 45. "You're not relaxed. I can see. Your neck is tense and your stomach too. Tut tut! Look how hard it is. You can't even push it in with your fingers."

Natalya laid a hand on the teacher's slightly rounded belly. "It won't work like that. The Method is most effective when you're relaxed! If you're tense you won't feel the benefit."

"But what can I do?" Elizaveta asked, almost in tears, straightening her brown, uniform-like skirt, which had ridden up above her knees. "The relaxation bit doesn't work for me like it should... I try and try," she pulled her stomach in and let it go several times. "But, you see, it's hard again..."

It looked as though the teacher might burst into tears at any moment. Her pretty, round face was contorted into a bitter grimace.

"There's no need to get upset," said Natalya, hurrying to her aid. "If any of you are having trouble with relaxing by tensing and releasing your stomach there is another method. Stay in the same position and bend your arms hard at the elbows. Clench your hands tight, until your knuckles are almost white and tense your whole body as hard as you can. Your whole body - the muscles in your

neck, arms, legs and stomach - should be tensed to the utmost." Natalya demonstrated how it should be done, unwittingly showing them her well-toned figure as she did so.

"Hold that tension with all your might! As hard as you can. And when you feel you can't bear it any more, let everything go by throwing your hands out like so," and she unclenched her hands. "Relax.

"That's a rather more energy-intensive method, of course, but it's pretty much fail-safe. So? Is it working?" Natalya asked the teacher, who had tensed her muscles so hard that the veins in her hands and arms stood out.

"Yes, that seems better," Elizaveta replied, delightedly unclenching her whitened fists.

"Excellent! Everyone's sitting as they should be. Now we'll measure your pulse and control pause." Natalya flicked on her stopwatch. "Remember your readings and write them in your diaries. Elizaveta, what did you get?"

"Pulse 79, control pause 12," the teacher replied quickly, delightedly touching her stomach, which was now soft and relaxed thanks to the new technique.

"Now I want you all to start practising the Method. Everyone reduce the depth of their breathing for the next 15 minutes," Natalya instructed them evenly. "You should be breathing quietly, without appearing to - almost inaudibly and imperceptibly."

Natalya walked carefully among the chairs, taking care not to make a noise, attentively watching and listening to each patient.

"Mr Kurochkin, well done. Look how hard he's trying!" she praised the old man who was sitting as quiet as a mouse. "But what about you, Mrs Friedman? Minus points," Natalya stopped near the elderly woman. "Surely you must be able to feel how your stomach and rib cage are moving? Backwards and forwards. Backwards and forwards."

Natalya laid her hand, palm down, on Mrs Friedman's heaving chest for a few moments.

"With normal breathing you shouldn't be able to hear it or see it. That's what I keep telling you!" She looked at her elderly student reproachfully. "Today I can see and hear yours quite clearly. What's going on?"

"I had a bit of a falling out at home with my husband," replied Mrs Friedman reluctantly, obviously unhappy with herself. "I still just can't calm down."

"You must put it all aside, put it aside," Natalya said, as gently as she could. "All your family woes and domestic problems must be left outside the door when you come into these sessions. We need complete tranquillity and relaxation. Forget

about your troubles and just think about something pleasant.

"For example, imagine you're in a boat. All around you is the endless blue of a vast lake. Above you there is only the gentle summer sun and nothing else. No thinking, no worrying. You're not in a hurry to get anywhere. Total relaxation and quiet, shallow breathing."

She again laid her hand on Mrs Friedman's now rather calmer chest. "There now, that's much better. Carry on like that."

For a time there was almost complete silence in the room.

"And now let's finish the exercise. Take your time and gradually return to normal," Natalya said quietly, informing the room that the 15 minutes had come to an end.

Once the patients had had a little while to come to themselves again, Natalya asked them to measure their pulse and control pause again and record the results in their diaries. She also made a few notes in her notebook.

"What did you get, Elizaveta?" Natalya asked the now visibly more cheerful teacher and located the relevant chart in her notebook.

"Pulse 75. Pause 14 seconds," Elizaveta read out the results from her diary.

"Is that good or bad?" Natalya continued to quiz the teacher. "What should happen during the exercise ideally?"

Elizaveta leafed furtively through her notes.

"The pulse rate should go down and the pause should increase," she asserted loudly, rising triumphantly from her seat.

"Sit down, sit down," Natalya motioned to her. "That's exactly right! If your diaphragm was completely relaxed and you reduced the depth of your breathing for the full 15 minutes, the pause should actually rise by perhaps half a second. And your pulse rate should go down by two or three beats."

"But my figures were identical today - the same before and after," Nina Friedman exclaimed anxiously.

"Well, that's just how it is today," Natalya glanced at her diary. "You said yourself that you'd had trouble at home. Evidently you didn't manage to relax properly during today's session. Try to make up for it later on in the day."

"But I had identical readings too! Seventy-four and 15 at the start and end of the exercise," a woman with high cheekbones seated next to Nina Friedman looked suspiciously at Natalya. "And I've not argued with anyone."

"Nevertheless, you've nothing to worry about," Natalya took the diary from the woman's hands. "Look," she opened the diary at the page with the patient's most recent notes from home. Day by day your indicators are improving. Your pulse rate was 87 and now it's 74 and your control pause has increased from six seconds to 15.

"I don't want any of you getting above yourselves," Natalya got up from her chair. "Dr Buteyko always says that it is altruistic people who do best with the Method. People who are greedy or egotistical are destroyed by their own avarice and, as a rule, they have considerably less success with the volitional elimination of deep breathing. You must learn to celebrate even your most insignificant successes and don't despair if your progress is not as rapid as you had hoped.

"As far as your particular case is concerned," Natalya again opened the crumpled diary belonging to Nina Friedman's neighbour, "you wrote down the end result from today's exercises incorrectly."

The high-cheekboned woman's eyes widened in surprise.

"Yes, yes! Don't be surprised." Natalya moved closer to the astonished patient. "I deliberately told you to finish the exercise exactly 15 minutes after you began. And everyone else stopped immediately. But what did you do?"

"What did I do?" The woman's eyes widened still further.

"You carried on practising the Method for another couple of minutes - almost to the point when we started measuring the pulse and control pause. Even though I repeatedly reminded you that there should be a break between finishing the exercise and measuring your pulse and control pause, while you come out of the Method. Otherwise your control pause may even measure less than it did initially. The thing is, you'd basically not yet come out of the Method!

"When you're practising the Method you should have the feeling of being slightly short of air. This means that, if you are proficient at the Method, at that moment your control pause will be almost zero or at any rate lower than your initial pause - not higher. Do you understand where you went wrong now?"

"Yes, I do." Nina Friedman's neighbour nodded contritely.

"If you all make sure you don't deviate from the rules, there'll be fewer of these kinds of misunderstandings." Natalya looked mistrustfully at her watch which for some reason seemed to be slow today and hastened to round up the session.

"The second group is probably already waiting outside and I don't want them getting jittery. I don't think you'll resent spending time at night on improving your health now," she said, bringing the slightly prolonged session to an end. Then she went over to open the door at which the next group of patients had already started to knock impatiently.

CHAPTER 25

Standing in for the emergency services. Gudzenko – an ‘average’ angina patient

Once the night-time attacks which had plagued Natalya's patients had stopped, the results of both her study groups levelled off and became essentially standard, that is to say roughly as envisaged by the methodology.

The trainer herself was reassured and gained more faith in herself. Without a doubt, the Head Doctor's support at every step of the way played a major and invaluable role. The diligence of the clinic doctors who attended all her sessions was of immense importance. Whether or not they themselves believed deep down in the Method, they adopted their Buteyko colleague's techniques extremely thoroughly. But it by no means came easily to them! It meant that everything they had been taught at medical school amounted to nothing. Buteyko's Discovery forced them to look anew at almost everything they had long held to be true. Had it not been for the Head Doctor's determination to establish the best possible conditions possible for Natalya's experiment, they would probably not have had the chance to become such active supporters of her work.

The unconventional nature of the information conveyed by the untitled practitioner added to the ill will of the clinic doctors' superiors, who would probably have brought to nought anything Natalya attempted. They would simply have said black was white and that the obvious successes were a temporary confluence of coincidental factors which had nothing to do with genuine science. It is much easier for people to think like that. It means there is no need to bring down the buttresses which have held things up for years. It would be enough merely to utter the word 'quackery' and everything would click into place.

But that didn't happen. Feoktistov deliberately gave the undoubtedly overworked doctors the time they needed to attend Natalya's sessions, despite the potential retribution he risked from Professor Chugunov. He willingly undertook the necessary changes to their consulting schedules, even though it was not to the liking of many people at the clinic.

Natalya grew closer in particular to Ivan Kurochkin's doctor, Olga Buyanova, and her colleague, Emma Kuznetsova, with whom she attended the sessions. They both worked impeccably, following with great thoroughness exactly what Natalya did with the patients and how she did it. They wrote down practically every word she uttered, even attempting to sketch the various movements. Natalya quickly realised that they could become valuable assistants.

By the third session they had, on their own initiative, already begun to explain things the patients didn't understand or which they had somehow missed from the previous sessions. Under Natalya's direction, they began to work with individual patients to try and halt incipient attacks. Since she found that she needed to do extra work with a number of individuals who were finding it more difficult to master the Method, she gradually began to assign some of them to

Drs Buyanova and Kuznetsova.

For their part, the two doctors were delighted at the trust she was placing in them and did their utmost to rise to the occasion. By the middle of the course they had formed small subgroups. Rather than provoking any kind of professional jealousy in Natalya, she felt a deep sense of satisfaction that the ranks of Buteyko supporters were gradually beginning to grow, even within the very bounds of Chugunov's empire.

The patients derived a double benefit from these volunteer assistants. They attended the sessions with Natalya, but were then able to go over anything which was unclear or which they found hard to understand under the supervision of their Leningrad doctors.

Natalya devoted a great deal of attention to individual work with each patient. Although the Method was the same, the process was slightly different with different patients. It was important always to take into account each individual's endurance, stamina and psychological condition.

For example, with a patient who had adequate willpower but who was rather lackadaisical about the training sessions, it might be necessary to be quite strict and demand that they follow meticulously all the directions of the practitioner. With another more temperamental patient, who evidently doubted their own abilities (like, for instance, the Russian teacher who had such difficulties with the relaxation), the most important thing was to provide support in the form of simple, friendly encouragement. It was not a case of coaxing them to work harder or, at least, it was not just that. The important thing was to notice immediately even the smallest hint of progress in those who were lagging behind. It was essential to remark on it straight away, saying something like, "Well done, you did that really well. You see, you can do it! Keep it up!" This approach was often much more effective than any dressing-down would be.

Thus Natalya monitored the behaviour and progress of her patients extremely closely. She would suggest to one patient that they come to her for additional work for half an hour before the main session with the whole group. To another she might suggest that they stay behind after the end of a session.

She endeavoured to modify the exercises each patient did at home on an almost daily basis in accordance with their state of health. For example, if a patient was experiencing fewer attacks in a 24-hour period, they could do fewer exercises. The opposite also applied. Natalya rigorously took into account by how much the number of attacks had reduced and how the pulse and control pause measurements changed. Together with the patient she would decide whether they should cut the dose of conventional medication by a quarter or keep it as it was for the time being.

It was a huge and exhausting task and the assistance of the clinic doctors who were newly converted to Buteyko could not have come at a better time. Their small subgroups absorbed some of the patients and consequently Natalya had

more opportunity to undertake more in-depth individual work on the Method with the most difficult patients.

Generally speaking, Buteyko recommended working with groups ideally of no more than 15 people. Practical experience at the Laboratory showed that as a rule this was the optimum size for the training sessions and produced the best results. However, ideals always remained ideals, alas, and harsh reality dictated its own terms. The influx of patients to the tiny Laboratory was so great compared to their limited capacity that groups of 10 to 15 people was often something they could only dream of.

You can't say to an ill person, "I'm sorry, there are still so few of us VEDB practitioners you'll have to come back in about 10 years..." The patient needs to be treated today - in 10 years' time they might well no longer be in need of anything beyond flowers... Even here in Leningrad, despite the fact that it was to a great extent down to her (she had come here herself and put together the groups herself), Natalya was not able to allow herself the luxury of conducting the course with groups of just 10 patients.

For one thing, the numbers of people wanting to take part was so high. They had already made themselves known during Buteyko's earlier visits! People had already heard something about the Method. In addition, Professor Chugunov would never acknowledge the effectiveness of the Method if it had only been tested on five or six patients - even if they were to blossom forth like never before following the course. Buteyko had taken that into account and Natalya also knew the score. So, like it or not, she had two groups of 18 and it was, of course, draining. It had an impact on her own health, apart from anything else.

It was not just the treatment groups. Back at the Laboratory she had been able to acknowledge and accept that one or two of the patients among the poorer students would never correct their breathing and therefore would never experience the full health benefits. Ultimately you could explain to these patients (and they did exist) that the Method is not the same as taking tablets - if you don't put in the effort you can't expect to receive the benefits like manna from heaven. But this was a clinical trial! It may not have been an official trial with the blessing of the Ministry of Health, but unless she managed to demonstrate an almost 100% success rate, a fully official trial sanctioned by all the highest authorities might never take place.

This meant that, regardless of whether or not one patient or another was doing things properly, she had to drag them along with her! It might be by the scruff of the neck, but drag them she must, back towards their long-lost health. And there was only one way of doing it: by sacrificing her own health rather than theirs. She had to share with the patients her own vital energy, nerves and strength of spirit. Consequently, the assistance of the clinic doctors was never superfluous. They were helping the patients and Natalya at the same time and she valued their help extremely highly.

In addition to the sessions with the groups at the clinic, Natalya sometimes

ended up effectively standing in for the emergency services. Of course, this could not be considered part of her responsibilities by any means and the framework of the clinical trial in no way made provision for it. But what could she do when somewhere in the neighbourhood an elderly woman, a Leningrad Siege veteran, was dying from an asthma attack and the emergency doctor was unable to do anything for her?

Thus, in the middle of her second week in Leningrad, she found herself at the flat of Anna Gladilinaya. Turning blue as she fought to breathe, the severely disabled woman, who had lost all but one member of her family during the terrible period of the Siege, writhed in convulsions on the hard bed in her tiny shoebox of a flat in a vast, remote municipal housing development.

Her last link with salvation was a phone, the only one on her landing (shared with six other households), but which she had managed to reach. Natalya managed to help Anna Gladilinaya, but how many other brave martyrs, locked away in the residential rabbit warrens of this huge city, desperately needed similar help?

"I was already choking so much," Anna Gladilinaya told Natalya after the attack had eased. "I had no strength left! I endured and survived the famine, the Siege and the death of my loved ones. But at that moment I thought, I'm going to smash the window and jump out of it! In the end I managed somehow to get some air into my lungs." A cloudy film veiled her reddened, deep-set eyes.

"I was completely lucid. I knew it was the fourth floor, that it's winter outside and icy. And I knew that the little top window was open! So I knew I wouldn't get any more air by smashing the window... But I felt this irresistible urge." She nodded at the large double window, patterned with icy tracery. "I was so desperate, I wanted to smash my head through it. My head! I wanted to smash my head through it with all my strength... That's honestly how it was, my dear. So thank you! From now on I'll try to breathe using your Method and perhaps my crazy notions about the window will pass..."

Ah, how this simple story broke Natalya's heart. How many others like it she had already heard. Yet it was something she never got used to. Millions of people were tormented by terrible distress and the Chugunovs of this world just stuffed them full of their 'compound powders'. And this was when almost a decade and a half had elapsed since Dr Buteyko made his great Discovery! How underhand and sly these learned academics were when it came to their desperate struggle for power. They'd sooner let millions like Mrs Gladilinaya go to the grave. They'd let them hang themselves, choke to death, poison themselves and jump from fourth-floor windows but they'd never give up their place in the sun to someone like Buteyko. Not for anything! Theirs was a dark force indeed and a powerful one.

Anna Gladilinaya finished recounting her bitter story, clutching at the hem of Natalya's white coat, evidently fearful of being left alone again.

"The way doctors treat you nowadays... Originally - that would be 15 years ago -

I went to them about these same attacks, though they weren't so severe back then. They said, 'You've just got a cold. Take some aspirin and use a hot footbath. It'll pass. Here's a sick note for three days.' A month later I went back again." Anna Gladilinaya straightened her warm knitted stockings. "I was feeling even worse and had a high temperature. This time their advice was, 'Warm your heels with mustard and take these tablets.' And they signed me off sick again. Well, the third time they didn't bother to hide the fact that they saw me as an enemy of the state. They said it looked as though I was just shirking my work..."

Anna Gladilinaya became sad. "I just had to get on with it. I started to go to the hospital less often. But the damned cough just got worse. At night it was as though someone was pulling a noose tight around my throat. I couldn't breathe." She dabbed at her watery eyes with a lace handkerchief.

"I toughed it out until eventually I had to call an ambulance. They immediately told me point blank, 'You don't have bronchitis - that's asthma.' Well, asthma's pretty much incurable!" The old woman tugged emphatically at Natalya's white coat. "I know that now. I saw enough of it over 15 years... And they went on to say it was an advanced form of asthma. Well, you have to ask yourself, how come it had got to be so advanced? You can ask the question," the old lady made a helpless gesture, "but no-one's responsible. In the end you're the guilty one. Tell me, for the love of Christ, why do these doctors go through medical school? 'Take a footbath' - I ask you." She stretched out a stocking-clad leg. "Any quack could come up with that. But no-one brings them to book. You may as well lie down and die. But keep your mouth shut."

"They'll be called to account. One day they'll be called to account." Natalya rose from her chair, gently freeing herself from the old woman's grasp. "I'm not going to suggest you put your feet in a steam bath. But I would strongly recommend you to breathe less deeply. In 15 years you may not have seen an asthmatic who's been cured, but over the last year and a half I've seen countless cases of recovery - at the Laboratory. The Buteyko Method really has asthma beat. And that's together with a whole host of other accompanying medical conditions. But so far not many people know about it." She hung back at the door. "That's the problem. But now you at least do know about it!"

Natalya looked out of the corner of her eye at the bright square of the window. "So, banish all those dark thoughts and get to work. Work, as they say, cures many ills. And the Volitional Elimination of Deep Breathing is work. It's hard work! But, believe me, if you stick with it, you'll never feel the need to smash your window..."

Thus, one day after another, Natalya's everyday life in Leningrad flew by, always at the same breathless pace. Meanwhile back in the Lab in Akademgorodok, they waited - waited and hoped. If the trial was successful it would mean completely new horizons for the Laboratory. If Chugunov himself gave the go-ahead, the Method would soon start making great strides across the country. That was *if* he gave the go-ahead. This was the thought that had been tormenting Buteyko the whole time. He had no doubts about the effectiveness

of the Method, but there was no limit to the dirty tricks the great pseudo-scientists would stoop to and you could only guess where they might direct a blow at the last moment.

Things appeared to be going well for Natalya. She phoned and boasted of her successes. The study groups were gathering momentum and it looked as though they would reach the finishing line without a hitch.

... "The Method is not just curing their asthma. A whole host of other medical problems, including age-related hypertension and angina, are just disappearing before our very eyes!" Buteyko recalled the excitement in Natalya's voice as her words came down the line to him. What she had said didn't surprise him at all. The thing was, they were conducting a trial of the effectiveness of the Method specifically in relation to asthma. It simply wasn't possible to demonstrate officially in one go just how many diseases could actually be cured with the volitional elimination of deep breathing. If asthma alone was enough to have him pretty much labelled a freak, the whole caboodle might result in harsher and more decisive retribution on the part of his high-ranking colleagues...

In that case neither the asthmatics, nor the hypertensive patients nor the angina sufferers, nor many, many others who suffered at the hands of flawed, upside-down Western medicine, would ever see the light at the end of the tunnel.

So they were starting with the asthma sufferers, which was actually fortunate, as they provided such graphic results. Those with other conditions would have to languish for some time yet. Nevertheless, a long wait was better than being condemned to wait forever.

His colleagues at the Laboratory knew the secret check-list. People came to them with diagnoses that would have Chugunov in apoplexy if he heard that the Method was also able to cure them. But Buteyko's colleagues had no problems with it. They accepted everyone who came to them - without falling into a dead faint. In fact, it was these patients with complex diagnoses who were the ones who often turned out to be the great successes! It was quite amazing...

Natalya had said that the Head Doctor at the clinic intended to do things properly and hold a research conference at the end of the trial. This would give her and her assistants the opportunity to demonstrate the clear improvements experienced by the patients using the Method - patients whom nothing had helped for many years, including Chugunov's powders.

Deep down Buteyko was convinced that Professor Chugunov would do something to try and upset the apple cart. For someone like Chugunov it would be no trouble to trump any of Natalya's aces. In any case, at best, the conference would only deal with asthma. How he wished that it could be declared out loud from the Leningrad stage for all to hear that the Method had beaten ischaemic heart disease and hypertension.

The thing was, all doctors knew that there was no such thing as a 'pure

asthmatic'. Asthma patients, like all other seriously ill people, always had all manner of accompanying conditions. Often these were no less serious than the one diagnosed as their main condition. But Chugunov, of course, would make out that they were only treating 'analytically pure' asthmatics. It was foolish even to hope for more.

But what a shame! Natalya had so much to tell her Leningrad colleagues based on the evidence of their local patients who had now been through a trial using the Method and her own personal experience at the Laboratory. Just take the example of that one-armed army veteran from Ukraine - Gudzenko was his name, wasn't it...? Buteyko sought to remember. Yes, that was it. Grigory Gudzenko - a colourful figure and no mistake! Such characters were not unusual at the Laboratory, but you didn't forget one like Gudzenko in a hurry, even though many others were cured and expressed their gratitude and wrote letters. But for someone during the training sessions to whoop with joy at having mastered the Method- that was something which did not happen very often.

Gudzenko had come to the Laboratory in shiny leather boots, breeches and a green, Stalin-style military tunic. He was of average height, powerful and well-built. An Armenian peaked cap with a dark green badge concealed what turned out to be a completely bald head. The empty left sleeve of his tunic was held closed by a wide, brass-buckled military belt.

Grigory Gudzenko had never suffered from asthma in his life. But for many years this veteran, who had once walked from Moscow to Berlin, had had mild heart problems: ischaemic heart disease and angina according to the notes he brought with him. His wasn't an especially severe case. He had never yet had a heart attack and had never ended up in the resuscitation ward. Basically, he had an average case of a very common disease. But it was this ordinary but persistent ailment that day by day crushed him into the ground more relentlessly than some heart attack sufferers!

"I have constant pain in my chest when I walk or lift anything." Gudzenko recounted his woes to Natalya who was working with him. "At night, sometimes I'm lying there and feel fine. Then I turn over awkwardly and, all of a sudden, we're away! I don't get a wink of sleep the rest of the night. It's agony - worse than toothache."

Buteyko, who was present during this conversation, looked sympathetically at the Order of the Red Star, forlornly pinned to the left lapel of Gudzenko's army-style jacket.

"I went to the doctor's in Belgorod." Gudzenko took off his cap, revealing his bald, pink head which was lightly covered with a white down. "They started giving me all sorts of tablets. One time I even spent four days in hospital, in the cardiology unit. They dosed me with four tablets every day. But none of it had any effect. Then they did give me some medication which actually took away the pain for a while. But it didn't work for long. Soon everything was back to how it was before..."

"In any case, it would be terrible to be taking tablets for the rest of your life. I went to Moscow, to the medical institute there." Gudzenko's lively hazel eyes glanced to one side. "The doctor there talked a fine tale. 'We don't treat simple angina,' says he. 'We only treat patients after they've had heart attacks, once there's already scarring...'" At this point Gudzenko broke off briefly.

"So, tell me, what was I meant to do if they weren't going to do anything as long as there was no scarring? It was so painful. And this was simple angina... It would be better to be done with it once and for all!"

The doctors found it hard to listen to Gudzenko's story. What doctor would actually class suffering like that as 'average' angina?

"Things didn't go as far as me having a heart attack, thank God. But I did have constant pains in my chest. Well, what can you do? I'm no spring chicken. I guess the cogs start to wear out..."

Buteyko had seen people before who took to the Method very well. But for someone to grasp the whole process as quickly and easily as Gudzenko did and to practically holler with delight during the training session on the very second day - that was something which really didn't happen very often. It was a bit easier for asthmatics as they could feel their condition easing from the very beginning of the course. Their attacks were cut short straight away. However, angina usually required rather more long-term commitment.

Yet here before them, literally on the second day, sat their patient - assuring them without any coercion that the previous night he had for the first time ever managed to conquer the chest pains which had tormented him for years. And Gudzenko recounted it with such feeling, describing his victory with such spirit! They'd really never seen anyone quite like him. He put such Herculean effort into the course that the whole group looked on spellbound, with envy written on their faces.

Natalya had explained to the patients that a typical indication that you had really got the Method right was usually a feeling of warmth spreading throughout the body accompanied by a slight but pleasant sensation across the skin, a little like goosebumps. But in Gudzenko's case, he relaxed so industriously and reduced the depth of his breathing to such an extent that a few minutes after the beginning of the exercise his bald, pink head was actually covered in beads of sweat!

"I feel fantastic! I feel so amazing!" he began to bellow. He'd not experienced bliss like this for so long, not even when he visited the sauna where he was always too preoccupied with concerns about his heart. Now, he insisted, he couldn't feel it at all.

"Nothing! I have no pain whatsoever!" he kept exclaiming in amazement. Sitting not far from him was a woman in her fifties, in full make-up. Her scarlet-painted

lips twisted in resentment: her attempts at relaxation were considerably less successful and she was infuriated by the veteran's rapture, which later, outside in the corridor, she rather coarsely compared with someone having an orgasm.

Gudzenko's childlike delight in the Method continued throughout the course. He returned home to Belgorod having almost tripled his control pause (from eight to 20 seconds). Before he left, he made a speech which was short but delivered with such sincere gratitude that even Buteyko's colleagues were extremely moved, though they were accustomed to flattering testimonials from their patients. Grigory Gudzenko didn't say anything special. This former soldier, who had not yet parted with his boots, was never going to be transformed into a great orator. But here again what counted was the tone and expression with which he uttered his few simple words.

"So, have you come to believe in the Method? What do you feel you've achieved here?" Buteyko had asked encouragingly, seeing Gudzenko hovering in the doorway, evidently wanting to express some acknowledgement.

"I..." Grigory Gudzenko agitatedly straightened the left sleeve of his tunic, which had slightly slipped out of the belt. "Dr Buteyko, if we're talking about achievements, I..." He took off his cap. "The pain. You know. The pain started to go!" Gudzenko turned smartly towards Natalya. "And what's more - I now know how to get rid of it completely!!"

That was how he had said it. With so much feeling that the laboratory technician who was standing nearby actually dropped the heavy periodical he had been holding.

"There's such lightness in my body now. I feel light as a feather - I could just fly away." His fellow student with the make-up had also come to say goodbye and smirked quietly to herself. "And my head feels so clear." He touched his bald crown. "It's amazing. I'll probably start writing poetry. Before I couldn't even tell you the answer to two times two... Everything was fuzzy and blurred, like in a fog. God forbid that anyone should suffer such a plague! So, my heartfelt thanks to you all." Grigory Gudzenko clicked his heels together smartly and energetically shook hands with everyone present before ceremoniously turning round and heading for the door.

Two months later he phoned and he continued to do so regularly. Each time he asked that his warmest greetings be conveyed to his practitioner and heartily wished Dr Buteyko a long life. And he never stopped raving about the Method - he'd been smitten with it once and for all. He would report back on how he was actively recruiting his many friends and acquaintances to it. He told them how he had taught his wife to sleep Buteyko-style, on her front, with tight straps to prevent overbreathing. He recounted how, to be on the safe side, he would stick a piece of tape over her mouth and his own. Every time, at the end of the conversation he would say, "It doesn't matter how much longer I live for, however long I live, I shall always worship the Method!"

That was one unusual patient he and Natalya had had. If only they could hear about him at the upcoming conference in Leningrad, as well as those like him such as Kurochkin. Natalya had said on the phone that the old man had managed to combat hypertension as well as asthma after - entirely at her own risk - she had introduced him to the Method.

Ah, what was the use of dreaming of such things - it made Buteyko's heart ache. Let them at least acknowledge the Method as a cure for asthma. If they only acknowledged that, it would make things easier in the future. So now all hopes were pinned on Natalya and Natalya alone. Would she be able to outflank Chugunov in a tight corner? She ought to be able to! She would try, at least. After all, they no longer had any other alternative.

CHAPTER 26

Professor Chugunov harrumphs. The patient demonstration at the research conference. Pauses and illnesses. Can you lose weight from overeating? The preliminary trial is a success, but the Head Doctor is sacked

A month flew by in relentless work. Natalya didn't even notice that it was now the beginning of March. The course was now drawing to a close. It was a Tuesday morning and she was about to go and take her usual session when she heard on the radio that it was 2 March. The announcer was cheerfully reporting the start of spring.

"In country as vast as ours, spring cannot take us by storm," she cooed jauntily. "In the foothills of the Kopet-Dag mountains in Turkmenia they've already finished sowing the grain, while at the foot of Kukisvumchorr, near Kirovsk, they are only just preparing for the traditional northern sports festival. But be that as it may, the calendar is the calendar and Monday marked the beginning of the most enchanting season of the year, much celebrated by poets..."

Ironing her skirt, Natalya still had time to catch the enthusiastic report that the cheerful sound of snow dripping as it thawed was growing ever louder and that on the streets of Leningrad they were selling mimosa grown on the warm shores of the Black Sea.

Goodness, she'd just not noticed! She was so involved in her groups, she'd ended up in a kind of stupor. Unexpectedly adopting a more serious tone, the announcer stated portentously that spring was especially important this year, since it was the final year of the Seven Year Plan. The first post-Khrushchev spring, Natalya remarked to herself as she tested the iron with her finger.

"We can all rest assured that our Soviet farmers will undertake the most productive spring sowing yet, since the Plenary Session of the Communist Party Central Committee in October and November last year relieved them of the unnecessary obstacles which fettered their initiative and restricted opportunities for rural workers..." the programme's presenter continued, as if picking up on Natalya's thoughts.

Did that mean the retreat was being sounded on the nationwide planting of maize then? Natalya tried to work out the implications of what she had heard as she ironed the hem of her skirt. What had they written about the Plenary Session she'd just heard mentioned? She remembered a report last year on the October Plenary Session which had astounded her and her colleagues. Very briefly (but in large type) the front pages of the main newspapers said that the Plenary Session had taken place on 14 October and acceded to a request from Comrade Khrushchev to be released from his duties as General Secretary of the Communist Party Central Committee, member of its Presidium and Chairman of the Council of Ministers of the USSR, due to his advancing age and worsening health. She had noticed at the time that he was called plain 'Comrade Khrushchev' and the usual titles of the head of state were omitted.

A strong, healthy man like Nikita Khrushchev unwell all of a sudden...? In the same large type the article went on to say that the Plenary had chosen the then evidently much healthier-seeming Leonid Brezhnev as General Secretary of the Central Committee. On the right-hand side there had been portraits of Brezhnev and Kosygin. Both of them had their hair cut short (making them look younger) and both wore the Hero of the Soviet Union gold star medal. And that was it! There had been nothing else. Not a word. Nothing about the collective farms' problems in the sowing season. Nothing about the restrictions imposed on them. But now, it turned out, there had been restrictions and these had been lifted at the October and November Plenary Sessions.

All this only gradually permeated into her consciousness. However, when the announcer started to digress slightly from her farming theme to talk about the upcoming local soviet elections, Natalya immediately remembered that the research conference on her clinical trials of the Method was scheduled at the clinic for Friday. This quickly brought her back down to earth from the dizzy heights of politics. Yes, this was it! On 5 March she would present the scientific community with the results she had achieved with the Leningrad patient groups.

Of course, there was plenty to present. Of the 36 seriously ill patients, just two could be said to have achieved only average results; the Russian teacher and a former weaver from a local garment factory had not really managed to normalise their breathing properly. They had made some progress, but they could of course have achieved more, had they demonstrated sufficient determination and staying-power. All the rest had successfully crossed the line which divides the hopelessly ill from essentially healthy members of society. Of course, they weren't going to run the 100 metres, but at their age there was no call for them to. Moreover, Natalya's charges now no longer suffered the nightmare of nocturnal attacks and their daytime attacks had disappeared early on during the course.

They had virtually given up most of the medication they had been taking for years. While some of them were perhaps still taking very low doses of the tablets they had previously been prescribed, it was no comparison with the quantities they had all had to take before they started with the Method.

Basically Dr Buteyko's students had achieved extraordinary success where not one of the doctors who had previously had any contact with the patients (including Professor Chugunov) had been able to make any progress. Figuratively speaking, the Volitional Elimination of Deep Breathing had raised 36 patients from a living death - there really was no better way of describing the semi-existence they had endured before the clinical trial.

Now everything depended on what conclusions the committee of experts would draw from this and, naturally, the deciding factor would be the opinion of Professor Stepan Chugunov. The Head Doctor had invited him to the conference early, informing him of the date well in advance so that the 'incredibly busy' Academician could free up a small window in his packed schedule for such an important event.

So, three days remained until the last battle! Natalya briskly completed her toilet and hurried off to take her classes. By about three o'clock she was able to finish for the day and decided she could do with a bit of time off. She would go to the cinema, stroll around the streets of the city and do a bit of window shopping. She needed a break from the strenuous effort and tension of the last few weeks and there would be no time for it on Wednesday and Thursday, since she needed to prepare her patients thoroughly for the impending test.

On Nevsky Prospekt she finally saw the mimosa she had heard about on the radio that morning. The vendors had been canny - International Women's Day was only just around the corner on 8 March.

As always (and as it had been back in her student days), Eliseev's Emporium astounded her with the abundance of its window display, packed with the most amazing array of fabulous goods. There were elaborate towers of beautifully wrapped green and yellow children's chocolates at 15 kopeks a piece and wonderfully tempting coffee cream cakes. There were displays of every sort of sausage and salami and dark brown bottles of Riga beer, glistening with beads of condensation.

There was so much to look at for a visitor from the provinces. Setting aside all thoughts of her diet, she filled her string bag with all manner of tasty treats and went to look for the nearest, less popular cinema where she would not need to queue for ages. Fortunately Natalya knew the city well and she was in luck. She soon came across a brightly coloured poster announcing 'An encounter with the famous circus and cinema actor, Yuri Nikulin, in his new film *Here, Mukhtar*'.

The box office queue at the rather second-rate cinema was not too long and Natalya was soon comfortably settled in one of the somewhat hard seats in her favourite middle row. During the short newsreel that preceded the main feature, her imagination was caught by the poignant, half-forgotten words of the famous Olga Berggoltz which came ringing out from the screen.

"...It bears the barbed wire,
as though t'were a crown of thorns,
encircling the siege - a bleak symbol.
Within this ring, shoulder to shoulder,
the three of them stand,
child, woman, man,
beneath the bombs as though beneath the rain,
their gaze cast suddenly upwards to the sunset."

The poet had dedicated these lines to the creation of the Siege of Leningrad Medal. Now, on the threshold of the 20th anniversary of the Victory over Fascism in 1965, the poem reminded the people of Leningrad of their responsibility to perpetuate the extraordinary acts of bravery performed by their fellow citizens who fell in the heroic battle with Hitler's forces.

How much Leningrad, the long-suffering city on the Neva, had endured... No monument could hope to capture the tragedy. The cloying sweetness of the chocolate stuck in Natalya's throat. However, as the newsreel finished and the main feature began, she was quickly distracted from these melancholy thoughts. Yuri Nikulin was playing what was for him an uncharacteristic role. Millions of cinema-goers were used to seeing the actor playing inveterate drunks, swindlers and brawlers, but this time he was appearing as a policeman. And what a superb actor he was! Anyone seeing him on screen for the first time could hardly imagine that the figure before them was usually a baddie.

Nikulin was so gentle, so profoundly personable in the way he related to his sniffer dog, Mukhtar. He and Mukhtar were so brilliant at catching robbers that you didn't even think about the baddies he had played in the past. Watching Mukhtar's adroit handler, his uniform cap jauntily tipped to one side, you just wanted to abandon whatever it was you did and go and work for the police. But you can't drop everything just like that. Natalya swallowed a caramel. Everyone to their own trade, as the saying went...

Her relaxed mood was spoiled when she remembered the remark passed by the clinic's Head Doctor, Igor Feoktistov, after the session earlier that day. He had looked in to the training room when she had finished seeing the last of the patients who had stayed behind with specific individual questions.

Pushing aside his rather damp chestnut hair which was trying to form ringlets (he had evidently come from somewhere in a hurry), he waited until the door had closed behind the last patients and turned amiably to Natalya. He wanted to know how she felt things were going on the eve of the conference. He listened attentively to her optimistic reply, then suddenly broke in, seemingly inadvertently, to say: "I don't like the way he harrumphs..."

"Who harrumphs? Why don't you like it?" Natalya said, her ears pricking up with foreboding.

"Well, the thing is," Igor Feoktistov took a clean spatula from the jar standing on the table and, perplexed, twirled it in his strong fingers, "I had a meeting with him yesterday."

"With whom?" Natalya asked, feeling increasingly uneasy.

"With whom? With whom? With the chief adjudicator at our conference - Professor Chugunov!"

"Right. So?" Natalya urged the Head Doctor on rather impatiently.

"I reminded him about Friday, about the conference and that." Feoktistov put the spatula back in its place. "I told him about your brilliant success with the group. And he replied: 'Success?... Interesting. Hmm. Hmm. How can that be? Hmm. Hmm.' Basically, he harrumphed a lot. And not in a good way. It was kind of disparaging somehow..."

Now, as Natalya sat in the semi-darkness of the cinema and recalled the conversation with the Head Doctor, she started to feel uneasy. The thing was, there were only two days left until the conference. And there was so much at stake!

She continued to enjoy the film and afterwards she strolled back unhurriedly through the streets of the populous city. But when she reached the doors of the hotel, she was struck by an unsettling thought: what was really at the bottom of the Professor's disparaging harrumphing?

How simple everything was in the film. Mukhtar was always hot on the trail. Thanks to his brilliantly trained nose he was able to track the criminal down by his scent and bark loudly: "Tally ho, seize the thief!" But what about medicine. Where could you find a Mukhtar who could unerringly sniff out any dirty tricks beneath the surface gloss and impeccable manners and bark to raise the alarm as loudly as possible, across the whole city, across the whole country...?

By 11 o'clock on 5 March seats were hard to find in the clinic's hall. In addition to the local patients who had taken part in the trial and would be speaking with her, everyone who had ever heard anything about the experiment taking place within their walls had come to hear Natalya's presentation. It was not only the doctors who had been immediately involved in the study groups - surgeons, neuropathologists and ophthalmologists were also present in the hall.

Basically, there was virtually no-one at the clinic who was indifferent to the trial. Only one person was missing. The chair which had been reserved for him stood empty. Professor Chugunov had evidently decided to absent himself from what he anticipated to be an awkward situation by using a well-tried method.

When the Head Doctor had phoned him the day before, Chugunov had explained that regrettably he probably wouldn't be able to come to the conference because, unfortunately, he was terribly busy this week. And that was it... Such a small thing. Go ahead and do the appraisal. But without the chief adjudicator. He sadly didn't have the time. He was overworked as it was, to be honest.

Mind you, had he got wind that the clinic authorities were distinctly ill-disposed to the Siberian woman's innovations, he would as likely as not have been overjoyed to grace his minions with his presence. But as it was...

The Professor didn't have time to listen to any fanciful declarations about miraculous recoveries. He had already left childhood far behind him.

He had delegated this business to Feoktistov - let him devise a way through it... But without the Professor's presence, the conference would be reduced from flagship to an empty, irresponsible farce.

They talked so much romantic nonsense about the wonders of the Method.

However, this rubbish needed the blessing of science! Only then would it have any significance. But as long as Professor Chugunov headed the department, that would never happen. All the more so, since Buteyko had given no hint of being prepared to offer co-authorship and instead of coming himself had sent that little birdlike go-between. What was he meant to talk about with her? What authority did she have?

Natalya reluctantly turned to face the empty chair. She instantly felt her chest tighten. She had tried so hard! She had pulled those patients back from the brink - patients who were in point of fact under the care of Professor Chugunov. He was directly responsible for the Leningrad asthma sufferers. After all, he was head of a leading pulmonology department.

And there you had it. All the while his patients continued to rot away in their homes and the 'compound powders' offered them no relief from their brutal attacks, he was continuing to recommend this useless medication to other patients far and wide. Yet when three dozen patients were liberated from their suffering without any kind of tablets Professor Chugunov was unable to find the time to undertake a serious scrutiny of the Method that had saved them.

Even among the doctors here in the hall today, there were quite a few who suffered from hypertension and angina. Many had lived through the horrors of the Siege. Surely these people had the right to the very best treatment that contemporary medicine had to offer?! Surely Professor Chugunov felt at least a little pity for them? Although, it had to be said, it seemed he did not feel much pity for himself - he had a constant sniff and wheezed as he breathed and yet he wouldn't give up his powders! He wouldn't give them up himself and wouldn't allow others to give them up either.

"It's time we made a start," Igor Feoktistov said quietly, seeing that the audience was becoming restless.

"Yes, yes," Natalya replied, briskly nodding as though trying to shake off an invisible burden. "I'm ready."

After a short introduction by the Head Doctor, she slowly came forward to the very edge of the low stage.

"Ladies and gentlemen! Distinguished colleagues! With the assistance of the doctors here at the clinic, I have over the course of the last month been working with two groups of seriously ill patients - all of them asthma sufferers."

Natalya felt a nervous tickle forming in her throat. No. What would be would be! She wouldn't give a damn about the absence of the high-ranking professor! She demonstratively turned away from the empty chair. She would talk about the results of the trial for all those people who had for so many years been treated as simple cogs in the machine. She would present her report as though she was oblivious to the disdain of the driving gear of that machine. Who knew which way medicine's slow wheels here would turn after her presentation? It was

entirely possible that they might go into reverse, despite all the disciples of compound powders.

There they were, sitting in the front row, her unbeatable trump cards: patients who had genuinely been cured! Let Chugunov with all his arrogance find even one patient to put up beside them who had been cured with his powders. If he did she would go - just jump down from the stage and disappear. But as long as the Professor had no such results to present, then let them listen to her! However preposterous, bizarre and contradictory Buteyko's Discovery might seem to the powers-that-be at first glance, let them at least listen. The thing was, behind its apparent simplicity and oddness there were people who had been lifted up out of the abyss of their suffering by the Method. What difference did it make to them whether Dr Buteyko's discovery was incredibly astute and wise or brilliantly straightforward? The most important thing was that it had saved them from inevitable death, while the powders slowly but surely paved the way to mortality.

And she would say this out loud! Not in some dark back room but from this stage which, though perhaps not vastly prestigious, was certainly a national stage as far as many thousands of pulmonologists were concerned. She would talk without any of the pseudo-scientific flourishes so often employed to intimidate the public. She would speak simply and honestly, telling it how it was.

"What is the Buteyko Method?" Natalya faltered slightly, searching for the right words. "It is based on Dr Konstantin Buteyko's Discovery of the Diseases of Deep Breathing.

In a clear and business-like manner she gave her audience an account of Dr Buteyko's process of discovery. With the aid of a colour poster pinned up on a stand, she vividly demonstrated the main aspects of the breathing process as it takes place in the human body. This led on neatly to the actual methodology of Buteyko's technique and some of the specific exercises.

"And now," Natalya picked up a slight stir in the auditorium, "I would like to hand over to the people who are in the best position to demonstrate that what I have told you here is correct!"

Limping slightly, Ivan Kurochkin mounted the stage. His black jacket was evidently a garment which did not often come out of the wardrobe and which smelt strongly of mothballs. It simply glittered with medals. A Cross of St George nestled next to an Order of the Red Banner. Another two dozen or so medals, slightly tarnished but specially polished for this solemn occasion, decorated the old man's proudly puffed out chest.

"Ivan Kurochkin. Seventy-eight years old. Suffered from severe chronic bronchial asthma. Additional conditions: ischaemic heart disease and hypertension." The sandy-haired doctor provided the audience with the relevant background information for Ivan Kurochkin.

"It's all true." The tall, dignified old man patted Dr Buyanova on the shoulder. "It's

all true. I'd had asthma ever since I was a young man. It started after I suffered German gas attacks at the Front. For the next 20 years I suffered terribly. Basically, it would be true to say that I had asthma my whole life. And now it's gone!"

With shaky steps, Ivan Kurochkin approached Natalya, who was standing a little way away from him.

"Thank you, my dear, for liberating me!" Kurochkin began to kiss Natalya's hand, which she quickly tried to put behind her back. "Please tell Dr Buteyko," the old man addressed the hall where, in the first row, the others from his group were sitting, "that his Method has been for us like being reborn!" Kurochkin again took Natalya's hand and she felt the back of it becoming wet with the old man's tears. "Not only do I no longer have asthma," Kurochkin bellowed into the hall, "my blood pressure's down as well and I've stopped getting chest pains. There are doctors sitting here." He stretched out his left arm. "I survived two wars but in peace time, when the asthma was slowly killing me, no-one could help me!"

For a second the old man was blinded by the flash of a newspaper photographer's camera in the third row.

"I was treated by Chugunov," Ivan Kurochkin continued undiplomatically. "What medication didn't he advise." He again looked at his fellow patients in the front row, apparently calling upon them as witnesses. From their places, everyone who had completed the course with him nodded their assent.

"Those hormones fattened me up like a hog - all to no avail! Things just got worse and worse. What's the point of all that when there's the Buteyko Method?!" the old man cried. "Tell me that, dear people."

He again tried to catch hold of Natalya's hand, took out a handkerchief and mopped his eyes which were wet with tears. Then abruptly, looking rather stooped, he left the stage.

"Now I'm slim and healthy again!" Ivan Kurochkin made his final comment from the floor of the auditorium.

"Nina Friedman." In a loud voice Dr Buyanova introduced the elderly woman who was to take Kurochkin's place on the stage. She was wearing a dark green dress which literally hung off her - it looked as though it had been made for her to grow in to.

"My experience was very similar." Mrs Friedman started before her diagnoses had been announced. "I could hardly breathe. I had constant spasms and chest pains. But now I can *breathe normally*..." Her small, kindly eyes twinkled. "It's true, I no longer breathe like a steam train, I breathe Buteyko-style, which means I don't breathe deeply any more.

"I can see there are lots of women here today." Nina Friedman looked into the

middle of the hall where a group of nurses was sitting. "I'd like to give you one piece of advice." Friedman smiled slyly. "Even if you consider yourself healthy but would just like to lose some weight, learn Buteyko breathing!" A wave of muttering was heard from the centre of the room.

"Before I met Ms Voronova, my weight was driven up by hormone deficiencies." She cast a grateful glance in Natalya's direction. "I went up to 98 kilos... and I'm only 1.65 metres tall! But now, as you can see, this dress hangs off me like a sack. All my clothes have had to be altered. I lost 15 kilos in a month and the weight is still coming off. And all it's taken is to practise Buteyko breathing! The effect is better than any sport or exercise."

Her statement excited a great deal of interest among the audience.

After this, one patient after another mounted the stage. For each one, the clinic doctors who had attended Natalya's course with the groups gave an introduction. During their presentations the patients responded to a wide range of questions from the floor. How many years had they been ill? Had their attacks stopped a long time ago? Weren't they worried that their afflictions would recur?

"I wonder if I might ask a question?" A rather thin surgeon in horn-rimmed spectacles raised his hand from the fourth row. "We have seen evidence today of your undoubted success, with examples provided by all your patients. They have been able to rid themselves of their asthma attacks. Many of them have also managed to normalise their blood pressure, ameliorate angina etc." The surgeon nodded in the direction of the front row. "Yet the means of achieving all these things was always the same - they stopped breathing deeply. I wonder if you could explain the process involved in a little more detail for us. For example, how long must the control pause you mentioned in your presentation be, in order to guarantee relief from a particular disease?" The surgeon looked penetratingly at Natalya, as though seeking to lure her into piling a great heap of disparate, haphazard facts on their heads...

"I understand your question." Natalya went over to the stand with the posters. She removed the top one illustrating respiratory metabolism in the human body and revealed underneath it a bar chart with five bars.

"This chart shows the partial pressure of carbon dioxide in the pulmonary alveoli," she explained unhurriedly, with emphasis. "It's a very interesting chart," her audience had become unusually quiet, "although I hadn't planned to spend much time on it today."

Natalya gestured the surgeon to sit down. "We are currently talking about the clinical trial conducted to assess the effect of the Method on asthma sufferers and that's what the official report will focus on. However, since you have touched on this issue I am not going to avoid it.

"This poster illustrates our experimental data, which enable us to calculate, for example, what length of control pause is necessary generally speaking to relieve

the patient of very common, serious diseases such as bronchial asthma, hypertension, angina and obliterating endarteritis."

She paused for a moment. The doctors had grown serious and couldn't tear their eyes away from the mysterious chart...

"I have spent some time here explaining that the Method does not bring temporary relief, it is a lifelong weapon in the fight against illness. I said that only once a patient has achieved a control pause of 60 seconds is he or she insured against illness." Natalya picked up the wooden pointer which leant against the poster stand.

"What I've said may sound convincing but it's still only words. This chart, however, is a different matter." Natalya tapped the poster which had attracted such universal, rapt attention. "Another aspect of Dr Buteyko's great Discovery is that he does not base his work purely on a verbal exposition of his principles. He has also undertaken very precise mathematical analysis. Figures, figures and more figures - that's his creed!

"We have just one task here today - to validate treatment using the Method, but only in relation to asthma." She put down the pointer and straightened a couple of the posters which had slipped. "However, this does not mean that the Volitional Elimination of Deep Breathing is only capable of relieving this one condition.

"Indeed, Dr Buteyko himself initially cured his own malignant hypertension with the aid of the Volitional Elimination of Deep Breathing." Natalya saw the surgeon who had originally asked her this tricky question almost leap of his seat in agitation at her words.

"Naturally," she again passed the pointer across the chart, "at our Laboratory we have conducted and continue to conduct research into the effectiveness of the Method in relation to other diseases linked to a CO₂ deficiency in the body. The five bars in this chart bear out far more eloquently than words the fact that you can only become completely healthy, by achieving a control pause of one minute without the risk of getting rid of one disease only to develop another." Natalya looked defiantly at the surgeon, who had barely regained his composure.

"Of course, I am exaggerating slightly. The chart doesn't show the control pauses for each of the five conditions. You can see from the heading that it deals with partial pressure of carbon dioxide in the lungs. This measure is given for each disease in millimetres of mercury and is shown above the relevant bar on the chart. This is, of course, much more accurate than patients empirically measuring their own control pauses. Instruments are instruments. Nevertheless, in answer to the question, I would say that, if we look at the table showing pulmonary ventilation criteria next to the chart (she moved the pointer across the seven stages leading to death depicted on the table), it is possible to convert millimetres of mercury to a measurement that approximately corresponds to the

control pause.

"Then," Natalya took a piece of chalk and made some simple calculations on a small blackboard, "we end up with a scenario where on average we can get rid of bronchial asthma by increasing the control pause to 25 seconds. I would emphasise, however, that this is an average! It's very approximate. A significant role is played by the age of the patient and the severity of their condition. Also, please note that 25 seconds is definitely the control pause and certainly not the maximum pause."

Table of Pulmonary Ventilation Criteria (Correlation of control pause and other parameters with alveolar CO ₂ and patient health)							
Physiologic al condition	Type of Breathing	Extent of Dysfunction	Alveolar CO ₂		Control Pause (CP) (sec)	Maximum Pause (MP) (sec)	Pulse per minute
			%	mmHg			
Super endurance	Superficial	V	7.5	54	180	210	48
		IV	7.4	53	150	190	50
		III	7.3	52	120	170	52
		II	7.1	51	100	150	55
		I	6.8	48	80	120	57
Normal			6.5	46	60	90	68
Disease	Deep	I	6.0	43	50	75	65
		II	5.5	40	40	60	70
		III	5.0	36	30	50	75
		IV	4.5	32	20	40	80
		V	4.0	28	10	20	90
		VI	3.5	24	5	10	100
		VII	DEATH				

"That's a bit more concrete," the inquisitive surgeon cried from his seat, the lenses of his glasses flashing.

"In individual cases considerable variations in either direction are entirely possible." Natalya finished what she was saying as though unaware of the interruption. "But, generally speaking, this estimated average control pause can provide a useful reference point.

"So, why does the chart demonstrate better than words the benefit of a control pause of a minute?" Natalya returned to her train of thought.

"Imagine for a moment that you suffer from asthma and that you've managed to achieve a control pause of 25 seconds and have succeeded in eliminating

your asthma attacks with the aid of the VEDB.

"It's possible that you will now be healthy for the rest of your life. But there is another possibility." Natalya moved the tip of the pointer from the smallest bar on the chart to the one adjacent to it. "Unfortunately, there is no guarantee that you won't suffer from hypertension in the future. Do you see how the second graph is labelled? If the partial pressure of carbon dioxide in your alveoli is below 38.1 mmHg, you are not protected from hypertension. But if you just succeed in pushing your control pause above the 35-second mark, you will leave this perfidious affliction behind."

The young nurses seated in the centre of the auditorium looked at Natalya with undisguised admiration. The surgeon in the fourth row rubbed his smooth-shaven chin vigorously.

"If you manage to raise your control pause to 36 seconds, you can deliver the final blow to angina." Natalya tapped the third bar on the chart with the pointer. "And, finally, we come to that scourge of men over 40 - obliterating endarteritis - which makes their legs look almost gangrenous below the knees." Natalya glanced sideways at the surgeon who was shuffling in his seat. "You can only be free of it with a partial pressure of carbon dioxide in the alveoli of over 39.2 mmHg. And at this stage, the control pause should be over 39 seconds." Her pointer halted for a while at the fourth bar of the chart.

"As you can see, when they have banished asthma patients still have to be on the look out for all manner of other dangers. But it is certainly worth achieving a control pause of a minute," Natalya tapped the pointer on the fifth and largest bar, "because then you are done with all these dangers forever! A partial alveolar pressure for CO₂ of 46 mmHg reliably protects you from all the vicissitudes of fate. You will become truly healthy."

A ripple of surprise went through the hall.

"So that's how Dr Buteyko works." Natalya hastened to finish talking about the chart that had so interested her audience. "Rather than excessive verbiage, he prefers thoroughly-checked figures - and that's what he teaches us, his colleagues."

"May I take a photo?" The curly-haired newspaper photographer climbed on to the stage and took several close-up shots of the chart to which he seemed almost magnetically drawn.

"But let us return to asthma." The Head Doctor decided to redirect the discussion back to the main theme. "Does anyone else have a question?"

"May I?" A plump, middle-aged woman next to the surgeon shyly stood up. She was wearing a white coat which barely fastened in the middle. "These patients here," she scanned the front row and her gaze settled on Mrs Friedman, "they said it's possible to lose weight healthily with the Method." She smiled self-

consciously and her little ruby earrings swung back and forth. "Could you explain in a bit more detail why that happens? And, if possible, could you say a bit more about your diet... I'm actually an ophthalmologist and don't have any connection with asthma, but it would be very interesting to hear what you have to say."

"Well, you see..." Natalya struggled not to smile at the sight of the woman's white coat straining at the seams. "Dr Buteyko has his own point of view on this. He is deeply convinced that there is one reason and one reason alone for people putting on or losing weight excessively - and that's overeating."

Nudged in the ribs by his plump neighbour, the surgeon actually gave a start.

"Alas," Natalya inclined her head reproachfully, "both groups overeat."

"But you should see what I eat for lunch. For a man it's not food, it's mere crumbs!" the surgeon exploded. She had clearly hit a raw nerve.

"It may be that someone overate in the past." Natalya put him in his place. "In their childhood or youth, it doesn't matter when. Buteyko categorically states that they must have overeaten at some stage!" She straightened her close-fitting white coat, which showed off her slender figure to advantage. "As people who overeat generally also overbreathe, Dr Buteyko believes that their metabolism is as a rule damaged by CO₂ deficiency! Food is not digested as it should be. As a result, abnormalities arise in the form of surplus or, indeed, insufficient weight.

"About the so-called Buteyko diet." Natalya caught the tensely expectant gaze of the plump ophthalmologist. "Basically there is no such thing - and this is confirmed by Buteyko himself. He instructs his practitioners to tell their patients about breathing a hundred times and about diet just once. Indeed, in comparing the importance of breathing and diet for the human body, he usually gives the following example.

"Think about it, how long could you live without food? A month. Many people could manage two. But how long could you manage without breathing? A minute or so. That's how much more important than food breathing is for the body!

"Dr Buteyko sometimes also adds that, if your control pause is a minute and a half then in principle you could even eat nails..."

Having been fully prepared to note down the magic formula, the disappointed ophthalmologist leaned back against the hard backrest of the wooden bench.

"So, my first piece of advice to those of you who are interested." Natalya raised the index finger of her right hand. "If you want to normalise your weight, the most important thing is to normalise your breathing. Once the metabolic process is working as it should, everything will fall into place. Thin people will put flesh on their bones and stout people will lose superfluous fat.

“As for appropriate nutrition - that will come of its own accord. By eliminating your CO₂ deficiency, your body will ‘wise up’. You will find that, without any conscious effort, you’ll simply no longer want to eat the sort of protein-rich foods that exacerbate overbreathing in the quantities you did previously. By protein-rich foods Buteyko means fish, eggs, chicken, pork and beef in particular, as well as dairy products, fish roe and animal fats.”

Natalya noted with a smile how the woman next to the surgeon was feverishly making notes as she at last obtained the information she wanted.

“In Dr Buteyko’s opinion, the least harmful fats are vegetable oils and the preferred meat product is mutton. Next on the list of things that deepen the breathing are clear soups, fish soups, tea, coffee, cocoa and chocolate.”

Natalya noticed the ophthalmologist frown at the mention of chocolate.

“In large quantities it is also harmful to eat vegetable proteins, such as are found in beans, peas and mushrooms, although they are, of course, less harmful than animal proteins. Refined and processed foods are not recommended.”

Seeing over half her audience taking notes, Natalya stopped for a moment.

“Ladies and gentlemen! Don’t get me wrong! Dr Buteyko does not prohibit these foods. For example, there are certain northern peoples who live entirely on meat. However, this does not mean that the VEDB is not appropriate for them. Indeed, we have had cases at the Laboratory where people from these ethnic groups have been put on the Method.

“An individual who is following the Method will automatically eat a lot less meat. He or she won’t need to force themselves - they will automatically be drawn to Buteyko porridge (a mixture of unrefined grains, sometimes with the addition of spring onions or wild garlic) because this will make it much easier for them to maintain the necessary pause. So what I’m saying is, normalise your breathing and trust your body. It will infallibly select the best food for you without any strictly prescribed dietary instructions.

“Of course, there are people whose hackles start to rise if they hear someone saying they shouldn’t eat meat, and they become hostile to the very idea of Buteyko. Well,” Natalya stood up straighter, “I can tell you officially: Buteyko theory does not include any outright ban on meat under any circumstances, nor on any other food. Far from it! Keep your control pause at 60 seconds and eat what you like. It’s another matter if you are finding it difficult to maintain your control pause and therefore naturally come to review your usual diet.

“From the preventative point of view, Dr Buteyko only has one piece of advice for everyday life: when you’re sitting down to a table groaning with tempting fare, don’t forget the ‘under’ principle. In Buteyko terms, everything which involves ‘over’ is harmful. It’s harmful to ‘overbreathe’ and even more harmful to

'overeat'. Ideally you should 'underbreathe' slightly and it's very helpful to 'undereat' a little."

Seeing the ophthalmologist had stopped writing, Natalya explained, "This might not be rocket science but the secret is that whereas other medical scientists may recommend this 'undereating' principle, Buteyko achieves his result by slightly different means. There's no need to beat yourself up. Don't go to bed hungry and dream of cream cakes! Use your willpower to normalise your breathing and your appetite will then regulate itself without any heroic efforts on your part. This is without doubt a new perspective and it also stems from Dr Buteyko."

Feoktistov looked at his watch. The discussion had already been going on for over three hours. It was time to round things up.

"Does anyone else have any more questions?" he asked, tapping his pen on the table. "If not, I would ask you to put forward your proposals for the official report of this clinical trial of the Method."

A pleasant-looking woman rose from her seat and turned towards the now silent auditorium. It was the Deputy Head Doctor.

"I think I am expressing the general opinion of those present if I say that this preliminary trial of Dr Buteyko's Method should be evaluated positively in every respect!"

Something like a sigh of relief rippled through the hall and there was loud, approbatory applause.

"Hear, hear! Quite right!" people shouted from either side and from behind her?

"As for the doubts expressed by our learned colleagues about alleged weaknesses in the theoretical underpinning of the Method, that is a matter of opinion." She looked meaningfully at one of Professor Chugunov's closest associates who was present in the hall. "Associate Professor Spivakov did briefly express some dissatisfaction with the scientific basis of the Method."

Hearing his name, Chugunov's comrade-in-arms put his hand over his eyes.

"I believe that alternative opinions like these are entirely acceptable during the scrutiny of a new advance in medicine," the Head Doctor's deputy said without changing her tone.

"It may be that Spivakov and his learned colleagues find the theoretical basis of the Method inadequate." She nevertheless coloured slightly at these words. "But to us it is entirely satisfactory." The Deputy Head Doctor again turned to the auditorium and her speech was briefly interrupted by friendly applause. "And I would ask you to take account of that in your final report. If the learned doctors disagree with anything," she raised her hands in a helpless gesture, "let them do some work in this area. Let them look for additional evidence."

“Through Ms Voronova, Dr Buteyko has presented us with his evidence. It is completely irrefutable that the practical side of the Method has proved itself. Those of you present here today have seen and heard the patients for yourselves.” Feoktistov’s deputy defiantly raised her head. “It is as clear as day that the Method should be applied as widely as possible!”

... Her contribution formed the basis of the trial report which Natalya received and was finally able to deliver to Dr Buteyko once she had had it certified with all the necessary stamps and signatures.

The outcome of the trial of the Method cost Igor Feoktistov his career. When Natalya travelled once more to Leningrad to look at the long-term results in her former patients exactly a year later, there was someone completely different in the post of Head Doctor. His approach to Natalya was also very different. Although he grudgingly allowed her to examine her former patients, it was only because he realised that she would simply go straight round to their homes if he refused. However, the question of whether she could undertake another study with a new group was resolved with difficulty. The new Head Doctor, Shkiryatov, alluded to certain guidelines unknown to her, forbidding unrestricted experiments which had not been sanctioned by the Ministry of Health... According to him these guidelines had been imposed from higher up.

He shrugged his sloping shoulders and shook his head. It was only when he was pushed into a corner by Natalya’s undoubted success with the previous year’s patients (whose condition during the intervening year had become considerably better, not worse) and also by calls from influential new patients eager to try out the miraculous Method, that Shkiryatov was forced to give in. He gave Natalya ‘exceptional’ permission to carry out one more small study with a new group. However, he warned her straight away that it would not in any way be an official clinical trial. It was ‘purely in response to her request’ and to the wishes of the many patients who had heard about the Method. But there should be no talk of any kind of scientific conference following the study or any official report until the Ministry of Health had issued a decision on this matter.

Shkiryatov really didn’t want to follow Feoktistov. He would ideally have liked to refuse Buteyko’s ambassador point blank, but it seemed that this would be impossible. Articles had appeared in the papers about Ivan Kurochkin, the veteran of two wars who believed in the Volitional Elimination of Deep Breathing as ardently as people believe in God. The journalist clearly sensed that dark clouds were gathering above the fate of the Discovery of Diseases of Deep Breathing - the absence of Professor Chugunov at the conference had been noticed by many.

Aside from the newspaper articles, the bush telegraph was also active. The three dozen patients cured by Natalya had not taken a vow of silence. Rumours spread persistently throughout Leningrad about this unusual means of curing the most serious conditions which were considered practically incurable. There grew

an army of people wishing to try out the Method for themselves. Taken together, all this enabled Natalya to conduct her repeat study. However, Igor Feoktistov's replacement unfortunately took little interest in her successes with the new patients.

Shkiryatov's fat, self-satisfied face said it all: know your place. You got your group. You did the work without mishap. Thank God! Now go back to where you came from and don't come back here again...

CHAPTER 27

Why asthma patients die, and how their doctors are punished if they suddenly stop dying

Buteyko was well aware of the growing rumbles of distant thunder all the while the Discovery of the Diseases of Deep Breathing was becoming more widespread. It wasn't so much a conscious awareness, more a vague, uneasy feeling. On the surface everything appeared to be going really well. Natalya had brought back such a glowing report of her clinical trial that for three days the whole Laboratory were doing hand stands!

The long-awaited document not only recognised the effectiveness of the Method in treating asthma, mention was also made of its innovative role in alleviating a whole host of other conditions in many patients. Before Natalya's trip to Leningrad this had been something Dr Buteyko could only dream of. In a nutshell, Natalya had made amazing strides in raising the profile and enhancing the prestige of the Discovery of the Diseases of Deep Breathing. Given her working conditions in Leningrad in the winter of 1965, it was more than anyone could ever have been expected to achieve, there was no doubt about it.

On the face of it, you might think they could afford to relax a little. They had achieved success - substantial, documented success with all the stamps and signatures of the Leningrad clinicians to prove it. However, over the years Buteyko had received too many blows below the belt from all sides to be able to believe in real success. He in no way wished to belittle Natalya's achievement - far from it. He realised how wise his choice had been in the face of such a decisive test. Yet a sober analysis of the facts of the matter revealed the other side of the coin. His young, daredevil colleagues did not pay much attention to this, but he, once bitten, twice shy, could not turn a blind eye to what was happening in this dog-eat-dog world of academia.

For one thing, the magnificent (that was the only word for it) document Natalya had brought back with her on the results of the preliminary trial of the Method lacked the most important signature - that of Professor Chugunov. Secondly, despite the fact that it was so thoroughly positive in every respect, his local enemies had started to intensify their hostile activities since he had received the document. This told him, far more clearly than words could have done, how the self-sacrificing work of Natalya Voronova in Leningrad was viewed by the local medical top brass there.

They had made their views known to the medical elite here in Siberia. It was obvious that Chugunov had met with General Sharatsky in Leningrad and that a dispatch with very different contents had also been sent to Novosibirsk, parallel to the trial report...

Buteyko felt this particularly acutely when one day, just a few months after Natalya Voronova had returned from Leningrad, one of his staunchest followers burst into his office in floods of tears. The tall, attractive Lydia Nevzorova was barely recognisable. The fire which usually burned in her bright eyes was

extinguished. Her round rosy cheeks were streaked with tears.

"Whatever's happened?" Buteyko hurried over to her. "What's wrong? Who's upset you?"

"Martynov!" was all Dr Nevzorova managed to get out between sobs, not removing her orange handkerchief from her eyes. "He's persecuting me with his investigative commission. He's making life impossible!" As she uttered these words, her shoulders shuddered convulsively and she sank down into the chair Buteyko had pulled out for her.

It looked as though there had definitely been a message (or phone call) from Leningrad. What Lydia Nevzorova went on to tell Buteyko, once she had calmed down a little, certainly pointed very clearly in that direction.

Vyacheslav Martynov was someone Dr Buteyko had turned to for help in the past (having convinced himself of the pointlessness of trying to find any sort of common language with Pomekhin). This was back before Buteyko had completed his PhD.

On that icy January day in 1962 he had gone to see Martynov, a senior lecturer at Novosibirsk Medical Institute, because positive and thoroughly complimentary rumours about him abounded. He was truly a rising star in the Institute firmament.

He was still quite young, too; Buteyko and Martynov were almost the same age. And he was so progressive! He wasn't afraid to give unbiased lectures to the students in the department absolutely refuting the status quo. He fought so hard for the interests of the students and risked entering into dangerous disputes with the authorities on their behalf. And most importantly, he was completely devoted to science - day and night. He was always searching for something new, always seeking to get to the heart of the matter, working tirelessly.

Perhaps this was just the person to help him, Buteyko had thought naively, scrutinising the pink-cheeked Martynov with his neat beard when he went to meet him in the small auditorium which was still emptying after the end of one of his classes. They didn't go to the department - there might be other academics there and Buteyko wanted to talk to this rising star one-to-one.

"I've heard excellent reports about you and so decided to come for a chat," Buteyko said, flattering the senior lecturer.

"And I'm very pleased to see a diagnostician who is so well-known in our circles," said Martynov, quick to return the compliment as he stroked his jet black beard with slender fingers. Without hesitation Dr Buteyko recounted the tale of his Discovery of the Diseases of Deep Breathing. He explained the basic idea of his Method, adding some thoughts about its potential importance in the areas of general medicine which were of particular concern to Martynov.

"I believe you are currently primarily engaged in combating rheumatism.

Rheumatic conditions respond well to treatment with our Method," Buteyko had said, casting his hook a little deeper.

"What?! Hold on a moment! What are you thinking of? Absolutely not!!" Martynov was not willing to swallow the bait. His rather small, bulging eyes widened unnaturally. "What on earth are you talking about? What's all this stuff about breathing? Excuse me, but we are up to our eyes in problems. You've got to understand that the issue of rheumatism is a global one. Our best scientific resources are dedicated to solving it. In fact we are literally on the brink of solving this great challenge!"

"But the thing is, breathing less deeply will help you to solve it," Buteyko interjected.

"Dr Buteyko!" Martynov grimaced as though he had toothache. "I don't know how your Method works on asthma sufferers, but to suggest using it for rheumatism is, in my opinion, quite ridiculous. We've got *heparin* - now that's another story! We can definitely overcome rheumatism with a medical product like that. Well, and not just rheumatism - heparin could beat lots of other diseases. Just give us time..."

Martynov had written his thesis on heparin and quite simply idolised the substance that so fascinated him. He was prepared to treat virtually anything with it. Buteyko, himself someone who tended to get very enthusiastic about things, began to realise that he wouldn't be getting any help from this heparin fanatic. As a scientist Dr Buteyko, was disinclined to overestimate the significance of heparin, unlike Martynov. Yes, it helped to thin the blood - that was well known. But no-one except Buteyko knew that heparin also contributed to a slight reduction in the depth of the patient's breathing! That was the reason behind its suitability for administration in so many different circumstances. However, it could never hope to replace the Volitional Elimination of Deep Breathing. The VEDB was a hundred times more effective and had no harmful side effects, whereas heparin, like any medication, had an impact on the body that was far from neutral.

However, Martynov believed in heparin alone. He saw it as a true panacea. So it was all the more insulting to Buteyko when, after a time, Martynov began to reproach him publicly for saying that the Method was a panacea. "There's no such thing!" Martynov declared, conveniently forgetting his own glorification of the panacea heparin.

On that occasion in January 1962, Buteyko came away from Martynov with nothing. All he was left with was the bitter aftertaste of yet another unsuccessful attempt to gain at least one supporter in local medical circles who genuinely believed in his discovery. It never entered Buteyko's head, however, that the heparin fanatic would soon become a second Professor Pomekhin for him.

Martynov quickly scaled the career ladder. Following his PhD, he went on to do a post-doctorate. He soon occupied a key position at the medical institute. And

when the joint signal of wrath came from Leningrad (from Professor Chugunov and General Sharatsky) about Dr Buteyko's 'irresponsible activities', this Pomekhin Mark II began to take energetic steps towards stopping them, encouraged by the original Pomekhin...

Martynov, incidentally, had not ended up curing rheumatism and other conditions with the aid of heparin. He was aware that Dr Buteyko was practically invulnerable as a scientist and that he had a rigorous, transparent and verified theory backed up by irrefutable laboratory research and so he decided to attack Buteyko on a weaker flank. One of his first victims was the general practitioner from Berdsk, Lydia Nevzorova.

Cheerful, brown-haired Lydia, who had graduated from the medical institute in 1960, had had plenty of opportunity to hear the impassioned, subversive lectures given by Martynov back in her student days.

"In science you cannot take the roundabout route. If you are convinced that you are right, you cannot simply nod obediently, not even in the face of national luminaries. Our lives are so short. We must use them to do something significant! We must help those on whose behalf we take the Hippocratic oath. We must help them, perhaps at the cost of our own material wellbeing and careers. And if necessary we must also be prepared to pay a far higher price..."

These words of Vyacheslav Martynov, lionised by the student community for his courageous ideas, had set her heart aflame. She desperately wanted to be even just a bit like him. Brimming with the 'revolutionary' ideas of the young idol of the Institute, she decided she should shoulder a heavier burden herself. At the time she could see no heavier burden in medicine than seeking a cure for asthma, with the exception, of course, of cancer and suchlike. She had frequently seen the complete powerlessness of doctors endeavouring to relieve a patient from severe, continued asthma attacks.

Lydia swore to herself that she would devote all her energies to combating this debilitating condition. In her final years of study she combed all the relevant medical literature and went to dozens of extra seminars to find out more about all the latest innovations and discoveries in this area. She also repeatedly consulted the Institute's well-known scientists in the field.

When Lydia found herself assigned to become a GP based at Berdsk hospital, she decided that she was now sufficiently prepared to fulfil her vow. Asthmatics were thick on the ground on her patch, each one more gravely ill than the last. The young doctor rolled up her sleeves: theophedrinum³, breathing exercises, Lydia Nevzorova allowed neither herself nor her patients any rest.

This intensive treatment of unfortunate asthmatics was at the time universally

³ Anti-asthmatic drug used in Russia known also as 'teofedrin', 'theofedrin', 'theophedrin' and 'teophedrin' in English. Contains theophylline, theobromine, caffeine and ephedrine.

sanctioned, and so she was all the more horrified when the result was that, one by one they all began to die - as if in response to a command! Admittedly, they didn't all die at once. Lydia Nevzorova would hardly have held on to her post if they had. However, from the time she arrived, mortality among the bronchial asthma patients showed a clear rise.

This fact didn't create any particular problems professionally. These patients had long been considered incurable and it was not unusual for them to die. All her actions were in strict accordance with the official guidelines for the treatment of such patients. Moreover, the energy and effort Nevzorova invested in her work was so obvious that it was impossible to find fault with her. Of course, fault can always be found with something, especially in the event of fatal outcomes... Nonetheless, the attitude of the kindly, thoroughly decent Head Doctor was one of sincere, maternal concern.

"You're just unlucky, Lydia. That's all there is to it," she stressed to the completely distraught Dr Nevzorova. "Other GPs have the same problem. And these are seriously ill asthma patients. To be honest, no-one has ever yet managed to truly cure them. Unfortunately, my dear, some things are simply beyond our power. Our only hope is science..." The Head Doctor sighed in sympathy with her woebegone colleague.

But the absence of any disciplinary measures against her didn't make Lydia's life any easier. At night she began to dream of her dying patients. Worse still, the surviving asthma patients started to fear her.

After going to the funeral of a fellow sufferer some of Lydia's frightened patients pleaded with her not to come to their homes any more. It was not uncommon for her knock on the gate of a house to be greeted by the loud, frenzied barking of an unchained dog... A rumour spread among the asthma patients that the appearance of the young doctor would bring misfortune and, as she frequently called on her patients on her own initiative, she started to find that doors were slammed in her face when she appeared.

On the day when the wife of one of her most seriously ill patients informed her in a distinctly unfriendly manner on the doorstep, not even inviting her into the flat, that her husband was not at home and she didn't know when he'd be back, Lydia decided to give up medicine. She had seen the light on in the patient's room and behind the closed blinds she had been able to make out the silhouette of a man...

With difficulty she forced her leaden feet to take her back to the clinic. On automatic pilot she set about seeing the queue of patients waiting outside her door for their consultation, through habit rather than on the basis of any rational decision. Almost none of them were asthma patients, for they had recently taken to phoning for an ambulance if they needed attention.

Lydia Nevzorova listened to the patients, took their blood pressure and made notes in their records, yet all the while her mind was crowded with desperate

thoughts. Where should she go? What should she do? She had failed to keep the oath she had sworn to herself. She was clearly a very long way from becoming a doctor like Martynov. "The most important thing is not to give up. Keep going, keep going towards the goal you've set yourself, regardless of the obstacles you may encounter," she recalled him saying.

But she couldn't do it. It turned out that not everyone was cut out to be like Vyacheslav Martynov. There was just no place for her among the white coats.

Lydia handed the prescription she had just written to the fifth patient and asked him to send in the next one. Into her office came an elderly man with a slight limp, looking rather ill at ease. He was dressed in a baggy, dark blue suit which looked as though it had been made for him to grow into. Lydia Nevzorova started in surprise.

"Mr Vostrikov! What brings you here? Where on earth have you been?!"

Zakhar Vostrikov was one of her extremely ill patients. There were times when he had to call an ambulance several times a day in order to cope with the asthma attacks which threatened to kill him. When she had first started in her job Lydia had also called on him regularly, but recently he appeared to have vanished. After she was met several times at his gate by an angry dog, she had rather lost sight of him. Then, the fact that his emergency calls had stopped led her to the sad conclusion that he had joined the ranks of the deceased.

"Sit down, sit down." Lydia quickly pulled out a chair for Vostrikov. She knew it was hard for him to stand for long. He looked as though he'd come back from the dead, she thought, as she noted her patient's inexplicable weight loss (Vostrikov had suffered from obesity).

"I'm fine, I'm fine." With a smile Zakhar Vostrikov remained standing and rested one hand on the back of the chair proffered to him. "I'm almost well, Dr Nevzorova," he said straight away without preamble, proudly straightening his shoulders.

"How? What do you mean?" Lydia had almost lost her tongue. Here was a patient everyone had presumed dead announcing his resurrection. "And there's nothing wrong with you?"

"No, nothing to speak of," Zakhar Vostrikov replied, smiling even more mysteriously. "I was cured of asthma by Dr Buteyko."

"Who?" Lydia half rose from her chair.

"Dr Buteyko from Akademgorodok," Vostrikov repeated more distinctly. "He has a special asthma laboratory. People come to him from all over the world."

Seizing her coat from its hook, Lydia dashed headlong for the door.

"Ladies and gentlemen! The consultation is ended for today!" she practically shouted at the few remaining patients who sat on the leather couch by the window in the corridor. "Don't wait for me."

As luck would have it, an ambulance with a driver with whom she was on good terms appeared. In half an hour Lydia had negotiated the crowd of visitors clustering around the entrance to the mysterious laboratory and literally burst into Dr Buteyko's office.

"Where's this Dr Buteyko? Show him to me!"

Dr Buteyko was taken aback at the sight of the attractive brunette, her black eyes burning like coals in her agitation. But the white coat he could see under her open winter coat gave him a clue as to what was going on.

"I'm Dr Buteyko." He broke off his conversation with a rather polished-looking, neatly coiffed man. "I expect you're here about the asthma treatment." He looked the striking stranger up and down once more. Lydia nodded briskly in reply.

"I'll just finish my conversation with Professor Demin." Dr Buteyko half turned back towards this imposing gentleman. "In the meantime you can chat with some of the patients in the corridor."

"Are you a patient?" Lydia Nevzorova caught at the sleeve of a frail-looking, elderly man nearest to the door to the Laboratory.

"Soon to be ex-patient," the man said, disengaging his arm. "I was mortally ill. I had asthma, chronic rhinitis and dozens of other problems."

"And how did you come to be cured?" Lydia asked with distrust. She could see none of the signs of severe bronchial asthma in the man.

"Well, I just didn't breathe so much." The old man cast a sidelong glance at the packed doorway of the Buteyko establishment.

"Are you having me on?" Lydia exclaimed in a loud and rather hostile voice. But the second and third patients she spoke to assured her that the man wasn't lying.

Thus began Lydia Nevzorova's acquaintance with Buteyko. For a long time in the evenings after work she went to Akademgorodok. At the time, of the 20,000 local doctors, she was virtually the only qualified physician who had any desire to thoroughly master the Volitional Elimination of Deep Breathing. It was not long before the results of her efforts became known. In a very short space of time, Lydia had saved 200 inpatient beds and 900 days of disability pay in her district alone - by taking Buteyko's discovery and using it in her practice! The diseases of deep breathing took flight before this able student of the extraordinary Dr Buteyko.

“But why was it the asthma patients in my district specifically who started dying one after another before I knew about your Discovery?” Lydia asked Buteyko one day.

“Well, because you started such intensive treatment! The thing is, before modern treatments were developed for the fight against asthma, asthma patients suffered but they didn't die... Then, once theophedrinum and other drugs came along, where was there for the poor patient to turn? There was nowhere in this world. The reason is that theophedrinum does not eliminate the disease, but it does do great harm to the body. And then there were those breathing exercises. *Breathe more deeply, more deeply,*” mimicked Buteyko and raised his arms above his head.

“That's why a negligent doctor may have a lower death rate among their asthma patients. A doctor like that does not zealously carry out all the Ministry of Health's directives. But you started to work in earnest with the patients. That's why they stopped letting you into their homes...”

This speech sent a shiver up Lydia's spine. It meant that all those colleagues of hers were not curing patients but were just contributing to the over-fulfilment of the funeral parlours' productivity plans! It was an incredible and preposterous image!

After that she was able to think about herself with a certain amount of pride. The inflammatory urgings of their idol, Martynov, were finally justified - not to take the well-trodden path in medicine, not to bow down before the universally accepted authorities!

For example Buteyko didn't care a fig about the regional health authority, even though it persecuted him day and night. And she was not afraid to apply his Method openly, despite the fact that the local high priests of the medical establishment spread slanderous lies about the man who discovered the diseases of deep breathing. Only Professor Pomekhin presented any real threat. From the most elevated lecterns he proclaimed Buteyko to be a dabbler and a charlatan. As a result ordinary doctors were too intimidated to familiarise themselves with the Method, believing it would come to no good...

So Lydia was all the more pleased to realise that she was not browbeaten by circumstances. She found herself in that longed-for, daring young generation of medical professionals about whom Vyacheslav Martynov had waxed lyrical in his fiery lectures. Lydia no longer contemplated abandoning her work. On the contrary, her accomplishments with the asthma patients in Berdsk meant she was soon promoted to the hospital itself. There she successfully continued her work, getting even the seemingly most hopeless cases back on their feet and so freeing up large numbers of scarce beds.

Then suddenly, like a bolt from the blue, there appeared a investigative commission authorised by the powers that be to investigate, in the words of its

head, her *'all but criminal, unconventional medical activities'*. But the worst thing was that the commission had been set up and directed to investigate her by none other than that almost legendary idol of her student days, Vyacheslav Martynov. This fact alone was enough to send her out of her mind.

Over the last few years the former lecturer had carved out a meteoric career for himself. Having successfully completed his post-doctoral thesis, the fiery lecturer became one of the top candidates for the senior management of a subdivision of the Siberian branch of the Academy of Medical Sciences that was soon to be established. Of all things, one of the first actions he took in this new potentially career-defining administrative role in the arena of academic medicine was to set up this medical investigative commission. The commission was tasked with nipping in the bud even the most tentative propagation of what was perhaps one of the greatest discoveries in the history of medicine!

Instead of examining all Lydia's patients who had been cured with the Buteyko Method, Martynov's commission took quite a different approach. The president of the commission interrogated her - there was really no other word for it - about patients in her care who had died, quizzing her closely on when and under what circumstances the deaths had taken place. Since almost none of the patients under Lydia's care in hospital had died, they started to dig deeper, touching on the early period of her work as a general practitioner.

"People were *afraid* of you," the head of the investigative commission pressed her. "And your notes?" He goggled at her with his unpleasant, deep-set eyes. "How do you keep your notes? Where do you record the theophedrinum? Where are the notes about the breathing exercises? What are these incomprehensible diary notes - pulse by the hour, control pauses? Do you have authorisation from the Ministry of Health for this?"

"There is no authorisation from the Ministry of Health for the Buteyko Method. But, of course, there is authorisation for the application of theophedrinum and breathing exercises in the treatment of asthma! Perhaps you'd like to ask the relatives of the patients who died how exactly how their loved ones were helped by these treatments that are so widely tried and tested..." Tired and losing faith in any kind of justice, Lydia attempted to parry the blows of the head of the commission.

"Another question: did you actually treat them with theophedrinum back then?" the president's expression was loathsome. "Of course, it's quite possible to write one thing in a patient's notes while in actual fact preaching any charlatan's theories."

"How dare you say such a thing!" Dr Nevzorova's head shot up defiantly, but then, remembering who had sent the commission, she lowered it again.

During the time the commission was carrying out its investigation, Lydia Nevzorova heard plenty of talk about Martynov. Mainly it was behind the scenes gossip by those outraged by the actions of the president of the commission

towards one of the best doctors at her level in the hospital.

... "I heard it myself, cross my heart!" a senior nurse told her friend in a secluded spot near the canteen as she recounted how Lydia's former hero had scaled the career ladder. Lydia had by chance sat down for a brief rest not far from where the conversation was taking place. The nurses didn't spot her because she was concealed behind a large potted cactus standing on a low wooden table.

"My older brother is a head doctor in Novosibirsk. He hangs around with the bosses there and sees and hears loads of things," she explained heatedly to her friend, who had seemed sceptical about where she had her information from. "That Martynov, once he'd finished his post-doctorate, he became sort of possessed. He started to make money wherever he could. My brother said that even his close friends were shocked at his greed! A professor's salary wasn't enough for him, the money he got for scientific research wasn't enough - he embezzled *15,000 roubles* that was meant for clothing for psychiatric patients!"

Really letting rip, the nurse raised her voice. "His records said that the money had been spent on some kind of scientific work. But actually he got hold of a mink coat for his wife and a whole load of other fine clothes. It's outrageous - were the psychiatric patients meant to go naked and barefoot or what? The case ended up going to the police. The anti-fraud people opened a file on Martynov but he wised up in time and paid 10,000 back. He used some contacts or other. Basically he got away with it in the end, but not without a scandal."

"And the investigating authorities never detected any embezzlement?" The infuriated nurse lowered her voice slightly.

"That's something else, Valya! It's nothing compared with what's to come. My brother says that as soon as the bosses at the Ministry of Health heard about Martynov's pilfering, they immediately fast-tracked him into the Academy and promoted him!"

"You mean they reward you for a thing like that?" the other nurse said in astonishment.

"Valya, were you born yesterday?" her friend upbraided her. "That's the way things are here - every boss is a thief. They don't appoint honest people. Who needs them? At the Ministry of Health they saw a professor embezzling and thought, 'Aha, one of ours! Let's promote him into the high ranks. *He's reliable.* He won't let down his own...'"

"You don't pull your punches, do you?! Tell it like it is!" gasped Valya.

"If you don't believe me, look at what Martynov's commission is up to. You can't see Dr Nevzorova's face any more, they've pushed it so hard into the ground. And she's the one who's practically bringing patients back from the dead with this new Method. Who, apart from a swindler, would want to destroy a person like that? And my brother said quite openly that the president of the commission is

Martynov's butcher. He sends him wherever there's someone to be done away with. And he's bloody good at it..."

Lydia Nevzorova didn't believe everything she had heard, but she became even more despondent.

The commission completed its work by reprimanding her and giving her a formal warning, which she immediately hastened to impart to Buteyko.

So, summing up everything that had happened in the year following the preliminary trial in Leningrad, what Buteyko was feeling was far from a soothing euphoria. The secret war against his Discovery had evidently not abated for a moment. And the blow they struck him at the personnel department of the Siberian Branch of the Academy of Sciences in the summer of 1966 demonstrated once and for all that his enemies were already openly going for bust.

CHAPTER 28

Buteyko is invited to Chicago but tacitly forbidden to go

It was the end of July. Just over three months ago, the Eighth Five-Year Plan had been adopted to thunderous applause at the Twenty-Third Congress of the Communist Party, and Brezhnev assumed the title of General Secretary. Party leaders promised far-reaching economic reforms that would, among other things, support greater scientific and technological progress. It appeared that long-awaited winds of change were blowing. The Soviet Union began to widen its international links, and on 20 July President de Gaulle arrived on an official visit, his first since December 1944. National papers carried his photograph, and the General Secretary declared on television that the Soviet Union was ready to co-operate with any country in the advancement of science and the economy.

Buteyko watched all this with pleasure. On 19 July he had received a form from *Who's Who* for his biographical details, accompanied by an official invitation to visit the US on a lecture tour about his Discovery. This was his big chance! *Who's Who* only included the most eminent world figures and his inclusion would mean a great deal. And for the first time in all these long, difficult years he would have the opportunity to talk directly about his Discovery of the Diseases of Deep Breathing to an international audience. After a lecture tour in the US, no-one would be able to put the genie of his discovery back in the bottle. Besides, the US was a rich country, with enormous financial and technical resources. It was entirely possible that he might be able to start up a Soviet-US laboratory, or even an entire research institute. American billionaires wouldn't hesitate to part with a few million dollars for the sake of their own health. In any case, risk-taking was innate to the American pioneering spirit.

Such were the Doctor's reflections as he sat with the international airmail envelope lying in front of him on his desk. Naturally he was aware that relations between the US and USSR could be better, to put it mildly. The Soviet press harshly condemned the US war on Vietnam and published sickening reports of atrocities committed by US soldiers. However, if you were to believe the Communist Party no-one in the USSR wanted to continue the Cold War, and the slogan 'Peace and Friendship between Nations' often resounded from Party podiums.

And after all, Buteyko reassured himself, the French President was visiting. The US and France were both Western powers. There couldn't be such a great difference between them.

A few days later, it occurred to Buteyko that he should ask permission from his superiors before answering the letter - a reply that did not suit them would be unlikely to reach its destination. He therefore set off to see the administration of the Siberian Branch of the Academy of Sciences.

The pop-eyed official long examined the letter. From the man's unnaturally fixed expression, Buteyko guessed that his visit had been expected - probably the authorities had already been informed that he had received an invitation from

overseas. There was a long, uneasy pause.

"You see," said the official eventually, stubbing out his unfinished cigarette in a metal ashtray, "the Branch President and his First Deputy have also received the same invitation."

"Really..." Buteyko half got up from the soft armchair.

"They didn't reply... but you can do what you want." The official suddenly thrust the envelope back at the Doctor and hurriedly left the room.

The man's words echoed in Buteyko's mind as he left the massive administration building. If the Branch President hadn't answered, it was clear what a lowly researcher 'should' want to do. It was as if the official had thrust a knife into his heart. The President and his Deputy could afford not to reply - a lecture tour in the US would not add much to their already brilliant international reputation. But what was he to do, a humble doctor from far-off Siberia?

Buteyko's mind unwillingly went back to the list of candidates for the Supreme Soviet that he had seen a couple of months ago: the President of the Siberian Branch of the Academy of Sciences had been on it, along with a short biography.

Lavrentiev had been born in 1900 to the family of a teacher from Kazan - considered members of the intelligentsia at that time. In 1922 (as the Civil War was drawing to a close) he graduated from Moscow University. He showed particular aptitude for mathematics and theoretical mechanics and gained his PhD and Doctor of Sciences degrees. In 1939 he was first elected a Member of the Ukrainian Academy of Sciences and shortly afterwards became its President. A year later, he became a Full Member of the Soviet Academy of Sciences.

Buteyko had an exceptional memory and remembered Lavrentiev's biography almost by heart. In the 1950s Lavrentiev worked in Moscow as the Director of the Institute of Precision Mechanics and Computer Engineering and in 1952 (the year of Buteyko's discovery) he became a Party member. He was one of the first scientists to move to Novosibirsk in 1957 when construction was beginning, and he soon became the President of the Siberian Branch of the Soviet Academy of Sciences. Buteyko recalled that according to the biography, Lavrentiev had mentored a cohort of top mathematicians and engineers who had on many occasions brilliantly represented Soviet science abroad. So why was the President now refusing to promote the achievements of Soviet science in the US?

It was all right for Lavrentiev, thought the Doctor. He had three Orders of Lenin and four Orders of the Red Banner of Labour, and had twice won the State Prize for his outstanding contributions to science and technology. Turning down a lecture tour in the US was no skin off his nose.

It was a different matter for Buteyko. He hadn't received anything but persecution from the proponents of orthodox medicine. How else could he feel?

Someone with plenty of food can refuse a crust of bread, but someone who is starving will die without it. Where was the much-vaunted 'fairness' in the system?

Looking back over seemingly disconnected events (the hounding of Dr Nevzorova and the virtual prohibition of his overseas trip) Buteyko realised that the successful preliminary trial of the Method had not dispelled the clouds hanging over him. Of course, the official hadn't been told what to say by Professor Pomekhin or even Martynov, but those in authority based decisions on their opinion, and of course they had their own machinations and intrigues. The Doctor knew this deep down, but even he couldn't foresee the consequences of his failure to respond to the invitation from Chicago. His enforced silence would play into the hands of the big shots in American pharmacology. His Discovery, which made drugs superfluous, was like a knife to their throats. Even the meagre articles from the Soviet press about his work had provoked a frenzied reaction. They would turn his silence to their own advantage. If he didn't reply, they would say, that meant he hadn't got anything to say. He was just another charlatan.

However, it wouldn't be enough to bad-mouth him. It was better to destroy a dangerous opponent, even just a potential one. It would be best of all if someone else could do their dirty work. A trip to the US by a highly-placed Soviet doctor in the anti-Buteyko camp was like manna from heaven to the US medical and pharmaceutical industries. They would give the boulder that had long been threatening to come down on Buteyko a very gentle nudge...

CHAPTER 29

The Head Doctor of a TB clinic welcomes the Buteyko Method

... "And the idea of using the name of a different academic supervisor on your dissertation really is mean!" Dr Wilma Goncharova was the former Head Doctor at the local TB hospital and had only recently started working at the Laboratory. She had turned red with anger almost to the roots of her hair as she reprimanded Dr Bubentsova, who clearly hadn't expected such a dressing-down. Natalya Voronova had discovered them arguing in a corner of the Laboratory.

"Dr Buteyko has given you everything," Wilma Goncharova reproached the cowering Svetlana Bubentsova, "but you've just thrown it back in his face. How would you have dealt with your hypertensive patients without his Discovery? And now that you've collected all your data on patients treated with the Buteyko Method, you no longer need him! Maybe you'd like Professor Pomekhin as a supervisor instead? You'd have no problem if he was supporting you..."

For a few seconds, Natalya was lost in admiration for her friend. Dr Goncharova looked stunning at that moment. Her beautiful dark eyes flashed with righteous anger, and she didn't look her 30 years.

Wilma Goncharova had started working at the Laboratory less than six months ago, in early 1967. Right from the beginning she had been closest to Natalya, perhaps because of their similar personalities.

"Why are you attacking me?" Dr Bubentsova tried to defend herself, the corners of her full mouth turning down as if she was about to cry. "We discussed this question together as a group." She looked imploringly at Natalya. "I explained the situation to everyone. You have to understand, I'm a single mother and without a PhD I won't have enough to live on!"

"But to approach him with your 'delicate question' at such a time, Dr Bubentsova!" Dr Goncharova softened slightly. "That thieving Dr Dzagoyeva is stealing his Method and you ask him if you can avoid naming him as your supervisor!" Wilma Goncharova scornfully shrugged her rounded shoulders. "His work is more important to him than anything else, and yet his colleagues want to remove his name from their dissertations rather than rallying round to support him! Maybe I shouldn't have said anything to you." Dr Goncharova also looked at Natalya. "I'm quite new here. But you started that awful conversation with Dr Buteyko about your dissertation right in front of me, and I saw his hands starting to shake. I'm sorry to put it so bluntly, but it was simply cruel of you, especially at the moment."

"Couldn't your question have waited, Dr Bubentsova? You've seen how those crooks in Alma Ata are copying his Method," said Natalya, putting her oar in.

"But I couldn't go on waiting for ever!" Dr Bubentsova dabbed her moist eyes with a handkerchief. "You've seen how things are in the Laboratory, Dr Goncharova. Do you think we've had it easy over the past few years? No, we

just have one hassle after another. Just you wait, we'll be closed down completely and then no-one, not you, not me," she shoved the handkerchief into her pocket, "will get a PhD. But they're not so prejudiced in Alma Ata, they'll steal the Method and get their PhDs. Just you remember what I've said!" and she half ran into the corridor without waiting for a response.

"What on earth happened?" asked Natalya. She thought she knew what the matter was, but asked her friend to be sure.

"Oh Natalya." Dr Goncharova made a tired gesture. "You heard everything. I can't stand two-faced people. It's no skin off my nose that she's got to work with Dr Buteyko in future. She's betrayed him and she ought to know what she's done. I'm not like her, I say what I think. I was born this way and no doubt I'll die this way too. I don't want to change."

Natalya already knew Dr Goncharova's story from other conversations, and was secretly proud she had chosen her as a friend. Much of what Dr Goncharova had seen and done in her short life interested Natalya, as a woman and a doctor who did not stick rigidly to what she'd been taught in medical school, and simply as a fellow human being.

Wilma Goncharova was born in 1937, a year marked by massive political oppression and purges. As she often said, her whole life was branded by that terrible year. Her parents were ethnic Germans from the Volga region, and at the beginning of the war their family was herded onto a train and sent east along with thousands of others suspected of collaborating with Nazi Germany. They were leaving behind a simple but adequate lifestyle in which they had their own farm, cow, horse, pig, and sheep, and were almost comfortably-off by the standards of the time. Her father was respected locally for his knowledge of livestock.

Her mother gave birth to a fifth child on the train, who didn't survive. Little Wilma didn't understand what death was and laid a toy she'd made out of bright red paper on the pillow of her 'sleeping' brother.

When they arrived in Siberia, fetid, draughty barracks awaited them instead of their parents' cosy house. The family somehow scraped out their own shelter in the ground and occupied half of it, in the other half putting some poultry they had miraculously acquired with their remaining money. Wilma's father wasn't allowed to live with his family and could only visit occasionally.

"Fascist swine! Nazi scum!" Such abuse was hurled at them daily. Wilma tried only to play with her brothers and sisters and avoid Russian children - their company could be dangerous. As her older brother was soon forced to live and work away from the family, they had only their mother left to protect them. Not that the children had much opportunity to play - they had more than enough work in the dugout and small garden.

The Second World War finished and Wilma entered primary school, but restrictions on the Volga Germans were not lifted. Even by the time she was 17, no-one from their German colony had been granted permission to travel inside the country. As she couldn't leave the town, she couldn't enter higher education. But then in June 1955 restrictions were relaxed a little and she received permission to go to the Novosibirsk Medical Institute for the entrance exams. She was told she could only go by rail and mustn't stray from the stipulated route, otherwise... She knew what would happen 'otherwise'. Thousands of German prisoners-of-war were labouring on construction sites in Siberia, and there would doubtless be a place for her...

The competition to enter the Novosibirsk Medical Institute was particularly fierce that year. A Russian girl needed a minimum of two A's and two B's to enter - but that would not be enough for a Volga German. However, Wilma's good looks (examiners are only human, after all...) and her undoubted abilities won her a place, and at the end of the year, she at last received travel documents.

1956 brought a fresh wind of change throughout the country. Khrushchev's 'secret speech' revealed the abuses committed under Stalin. Wilma's life became far easier. In her sixth year of medical school she married a wonderful Russian man. Everything seemed at last to be going well for her, until she contracted tuberculosis.

The doctor who discovered her illness held the x-rays up to the light for a long time. He shook his head and tutted regretfully. Such a pretty girl to have TB... Wilma's years in a damp dugout with no ventilation had caught up with her.

The disease was discovered when her group was on a placement at the tuberculosis institute. Her lungs were repeatedly x-rayed, after which she was immediately hospitalised. However, Wilma had no intention of spending months recuperating as so often happens in such cases. She needed to finish medical school! She wanted to live and work at long last. She decided to become a tuberculosis specialist so that she could treat fellow sufferers.

In the autumn of 1961, Dr Goncharova (as she now was) started working in a TB hospital near Akademgorodok, then she and her husband moved to Akademgorodok itself as her husband found work as head of a laboratory in a new research institute. In these years Wilma saw for herself what a provincial TB hospital was like. It was located a few kilometres outside Akademgorodok, in the industrial suburbs. Most of the patients were factory workers or farmers from neighbouring villages. The ramshackle building was made of wood and its gloomy corridors were filled with the sickly-sweet smell of slops and chlorine. They lacked the most basic medicines. Patients had to spend months lying on rusty beds that squeaked terribly. There were not enough dressing gowns, slippers and pyjamas. The staff were paid a miserable wage, turnover was high, and embezzlement was a common occurrence. The hospital was rife with dirt, deception and theft. The Head Doctor, Valentina Kharitonova, embodied all of these characteristics. At 42, this tall woman was already losing her good looks. She ruled the roost at the hospital. 'Dead souls' (people who didn't actually work

at the hospital) were listed on the payroll, and large quantities of surgical spirits often disappeared. She entertained district health officials in her office in the evening and bullied and persecuted any who objected to her behaviour. Patients were periodically dosed up to the eyeballs with virtually useless medicines such as tubazid⁴ and streptomycin, if any were left over. These made the patients dopey and damaged their hearing, but they still had TB.

The patients themselves took full advantage of the situation. Male and female patients had affairs, and used a variety of means to get hold of medical spirits as well as ordinary vodka. The housekeeper who looked after the bottles was constantly hung-over.

Wilma's first years at the hospital seemed like a nightmare. It wasn't just that patients didn't get better - everyone, including the staff, was robbing the place. The Head Doctor was constantly caught up in drinking binges and love affairs, and not only indulged in pilfering herself but allowed others to steal anything and everything. The worst was that she made no attempt to have the decrepit wooden building rebuilt, hence putting patients and staff at risk. Like the other departments the x-ray department was located in a room with wooden walls, meaning both staff and patients were constantly exposed to radiation.

Although staff were either resigned to the Head Doctor's behaviour or equally corrupt themselves, a conflict between them and Dr Kharitonova gradually started to develop. Secret conversations about the need to replace her became ever more audible and frequent.

An unpleasant incident at the beginning of 1965 finally made Dr Goncharova's patience run out. She had just returned from maternity leave. Her daughter was only two and a half-months old, but she had to be placed in a crèche. Wilma was still breast-feeding, however, and as everyone knows, it is vital for mothers not only to avoid alcohol and tobacco at this time, but also to avoid those who abuse these substances. Dr Kharitonova knew this as well as anyone. However, this did not prevent her sitting next to Dr Goncharova for a good 10 minutes, examining x-rays. Dr Kharitonova reeked of wine and cigarette smoke as she tried to give Dr Goncharova a muddled explanation of the dark spots on their patient's left lung.

"... I think the inflammatory process has worsened..." said Dr Kharitonova, with dull eyes and a profound expression as she stated the blindingly obvious. She mechanically opened her handbag.

"Goodness, what's that doing here?" she exclaimed in mock surprise, pulling out a cigarette.

"I'm sorry, I don't have any matches with me," said Dr Goncharova, standing up and leaving the room abruptly.

⁴ Isoniazid

After this incident, mutterings against the Head Doctor increased and finally reached the ears of the authorities. A management meeting was organised. Executives from the regional health authority questioned staff for a long time. Dr Kharitonova's colleagues sullenly hung their heads and shot meaningful glances at her, but no-one dared to complain about the chaos at the hospital.

"So what exactly is the matter?" an official eventually asked.

Seeing that everyone else was now silent despite their previous clamouring, Dr Goncharova resolutely rose to her feet and looked directly at the man.

"It's not a question of petty squabbles and tittle-tattle. Our disagreement with Dr Kharitonova is purely professional!"

Dr Kharitonova gave an unexpected dry cough at these words.

"Judge for yourself. Instead of taking key decisions about patient management, the Head Doctor has taken on many other responsibilities."

Dr Kharitonova stopped coughing and listened with scarcely concealed suspicion.

"For example, she personally issues such small items as pens, pencils and cloths."

Dr Goncharova could feel tension mount in her temples and tried to control herself.

"In other hospitals, a housekeeper or administrator does this kind of job. Here, the Head Doctor has assumed these roles, so there's no-one to turn to in emergencies - the Head Doctor is otherwise engaged."

Dr Goncharova knew that her listeners would have to read between the lines, but she had no choice. Even she didn't have the strength to tell them about the Head Doctor's nightly revels in the hospital. However, the civil servant from the regional health authority seemed to understand and started making notes.

Sensing which way the wind was blowing, Dr Kharitonova watched his sharp pencil race across the paper. Following Dr Goncharova's example, the other staff cautiously began to describe their difficulties. The hospital was cut off from the town, wards were overcrowded and resources lacking. The Head Doctor dealt with tasks unrelated to her role, which prevented her getting on with her own job. It would be useful if the authorities could give Dr Kharitonova (and of course the rest of the staff) more support.

The Head Doctor slapped her knee in agitation and glared at Dr Goncharova who had stirred up this wasps' nest, but she didn't openly contradict anyone. Instead, she would occasionally turn to her neighbour, the head of the district health authority, and sigh eloquently with downcast eyes as if saying, 'after all that I've done for them, this is how they repay me...' Dr Kharitonova would

doubtless have liked to tear Dr Goncharova's throat out on the spot, but she knew how she should deal with her.

Dr Kharitonova needed a week to prepare her counter-strike. On Tuesday afternoon, Wilma had asked permission to stay at home to wait for a plumber to bleed her radiators. It was a particularly bitter winter this year, and Wilma's flat was freezing cold. Bleeding the radiators would help them cope slightly better with the low temperature, but at half past two, before the plumber arrived, the Head Doctor unexpectedly turned up.

"I've got the car. Come with me now! We're going to the district health authority," she ordered Dr Goncharova peremptorily

"But I specially requested this time off! The plumber is due..." Dr Goncharova protested weakly, alarmed by the Head Doctor's unexpected visit.

"Leave someone here instead." Dr Kharitonova pursed her lips and glanced around the empty flat. "Ask a neighbour or someone. It's urgent!" She wrapped her luxurious fur coat tighter around her and headed towards the door. "And be as quick as you can, please. There isn't much time."

Dr Goncharova somehow persuaded a pensioner from across the hall to wait in the flat and hurried out into the street.

'What is she up to?' wondered Dr Goncharova all the way to the health authority offices. 'Is she going to demand my resignation? But then why involve the authorities?'

The head of the district health authority was just finishing a meeting when they arrived. He greeted Dr Goncharova warmly, despite her fears.

"I'm sorry to call you over so urgently," he said, smiling and indicating they should sit. He took a paper from the desk. "Dr Kharitonova is going for some training." He held the paper closer to his eyes. "We took the decision that you should replace her as Head Doctor while she is away. The order has already been drawn up." He held out the paper to Dr Goncharova, who was taken aback by this turn of events.

"Thank you for showing so much faith in me." Wilma unconsciously shrank from the order. Dr Kharitonova fixed her with a look full of hate and incomprehensible glee. "But I've not been working here long. There are plenty of more highly qualified people on the staff."

'What, so you're scared now? Maybe you should have looked before you leapt,' Dr Goncharova read in Dr Kharitonova's watery eyes, bloodshot from alcohol.

'You've made a mess of the hospital, now I've got to sort it out... you've just arranged for me to take temporary charge so I can take the blame,' Wilma silently answered.

"You'll get all the support you need immediately," the head of the health authority said, interrupting their silent duel.

'Just you think before opening your mouth at a meeting,' Dr Kharitonova's self-satisfied smirk seemed to say.

"But there are so many candidates apart from me," Dr Goncharova protested out loud once more, but she had already made up her mind.

"We chose you," the head of the district health authority said with a mysterious smile. "We can see things more clearly from outside."

The air in the office was stifling and to Dr Goncharova the moment's silence seemed to last forever.

"Well, if the order has been signed, it has to be carried out," she said slowly.

"That's more like it!" cried Dr Kharitonova, unable to keep silent. "Now the ball's in your court." She wiped her hand across her perspiring forehead. "Be bold and creative! Put all your ideals into action. But watch you don't over-do it," she added with a malevolent smirk, "or your efforts might back-fire."

CHAPTER 30

People believe what they want

As Dr Goncharova had suspected, there was a malicious motivation behind her temporary promotion. Dr Kharitonova knew the best way to get even with her most dangerous opponent.

The anonymous denunciations of Dr Kharitonova received by both district and regional health authorities mentioned that she included 'dead souls' (people who didn't really work at the hospital) on the payroll. She had managed to cover her tracks in time, but this was not enough for her. She didn't know who had sent the typed denunciations to the authorities, but she decided in any case to discredit the person she held responsible for stirring up all this commotion; scarcely a month after Dr Goncharova's appointment, an incident occurred that left Wilma shaken for a long time.

Arriving at work one morning earlier than usual, she was amazed to bump into the housekeeper at her office door. The woman was half-dressed and looked as if she hadn't slept. She stepped back from the door and hurriedly began to button her overalls over her apparently naked body. Dr Goncharova's sensitive nose caught a whiff of spirits.

"What are you doing here at this unearthly hour?" Dr Goncharova asked, astounded and unable to tear her eyes away from the housekeeper's shaking hands.

"Well..." the housekeeper at last managed to fasten her gaping overalls, "it's coming to the end of the month, and there's going to be an audit this quarter. I've been coming early in the morning to do the accounts."

"You've been doing the accounts!" Dr Goncharova thought she could see a shadowy figure disappearing down the dim corridor towards the men's ward. "Well, that's fine." She caught another whiff of spirits. "Let's see what the audit reveals."

Alone in her office, she couldn't shake off the feeling that something was terribly wrong. The sheet covering the couch in the corner didn't seem to be arranged in the same way as the day before and it looked crumpled. Her glass wasn't standing beside the carafe as usual but some way off to the side. She had the impression that the locked office had not been empty that night - not to mention other nights!

Without quite knowing why, Dr Goncharova took a key from her bag and went over to the heavy safe hidden behind the double chest of drawers beside the window. Gently, as if she herself was a thief afraid of setting off an alarm, she turned the key twice anti-clockwise. Even more gingerly and almost noiselessly, she opened the heavy door of the small upper compartment. This was where the personnel files for all the hospital staff were kept. Holding her breath, she examined the contents of the lower shelf. She broke out in a sweat. There were

three files there belonging to people whom she didn't recognise, containing records detailing their appointment to the hospital, all with an official stamp and her forged signature.

There were only two keys to the safe. She always carried one with her, and the other she kept in the locked middle drawer of her desk, just in case. Dr Goncharova darted to the desk and pulled at the drawer handle, but it didn't open. She rummaged in her bag, found the tiny key and opened the drawer. To her horror, the safe key wasn't there. She was so shocked that she couldn't get up from the desk for a few moments. She let her hands drop and leaned back against the hard chair back. She stared at the yellowing newspaper that lined the empty drawer like someone condemned. She emptied the few other items contained inside the drawer onto her desk and looked through them three times.

What if the auditors had discovered these "employees"? Wilma felt completely overwhelmed. She'd be disgraced. With an effort of will, she forced herself to stand up and lock the safe door again. Making up her mind what to do, she left the office.

The head of the district health authority was disconcerted by Dr Goncharova's appearance so soon.

"Here's the safe key, and you can fire me!" Wilma's face was covered with red blotches as she passed the key to the official. "I have no intention of going to court for hiring non-existent employees."

"Please, please..." The official stroked the paunch under his well-made suit. "What employees? What's this key? Sit down and calm yourself."

"There are files for employees whom I don't recognise in my safe," blurted Dr Goncharova, perching on the edge of a chair. "And that's the safe key. The duplicate has disappeared from a locked drawer. We're just about to have an audit. Why should I answer for someone else's dirty tricks?"

The head of the health authority wiped his neck with an unclean handkerchief.

"I don't understand!" He dialled a number on his massive telephone. "Come in to see me for a moment," he said abruptly into the speaker.

They sat for a few minutes in silence. The door suddenly creaked open and Dr Kharitonova strode into the room. Walking in front of Dr Goncharova, she awkwardly opened her handbag and removed a hand mirror. Still more awkwardly, she deliberately let the second safe key drop from her coat sleeve onto the floor.

"Dr Kharitonova." Dr Goncharova trembled inside as she addressed her. "You've dropped a key."

“What do you mean?” Dr Kharitonova pretended to adjust her hair. “It’s not my key. You probably dropped it yourself.” She slipped the mirror back into her bag, which she then closed with a loud snap.

“You’ve been looking for something you haven’t even lost.” She met the official’s astounded gaze. “What’s the matter? Have I said something out of place?” Dr Kharitonova slowly looked the official up and down. ‘Who are you looking at, you bald twerp? Haven’t we drunk vodka together dozens of times?’ she obviously wanted to say, but restrained herself. Instead, she crept around the large desk like a cat and stood behind him. With a fluid motion she placed her hands on his shoulders.

“What’s the matter, sweetheart?” Her slack breasts almost touched the official’s prematurely balding head.

This vulgar display made Dr Goncharova feel sick. Still not picking up the spare key from the floor, she stood up and reddening, fled the room. She hadn’t expected such behaviour even from Dr Kharitonova...

However, Dr Kharitonova had miscalculated on this occasion. The head of the district health authority didn’t forgive her display of impudence, and she was quickly and quietly removed from her position. Dr Goncharova took full control of the hospital. Despite her relative youth, she made an excellent head doctor. She persuaded the authorities to grant her resources within one or two months (and sometimes within weeks) that others had taken years to obtain. Major renovation work was at last undertaken. Dr Goncharova not only had the existing building repaired but managed to have some extra buildings added. Her x-ray department was moved to a thick-walled brick building beside the neighbouring fire station. For that alone, the hospital staff would have gladly erected a monument in her honour, to say nothing of the staff of the children’s ward, which had been situated next door to the x-ray department and separated from it by a mere wooden partition. Radiation is much more dangerous for children than adults, and even adults should not have an x-ray more frequently than every six months.

Dr Goncharova had suffered since her childhood under the Soviet system, but was now working for it with all her heart and soul. Working to improve conditions in the hospital was a worthy endeavour, but it was still more important to improve treatment. In this respect Dr Goncharova tried to tackle out-dated prejudices that had amassed in orthodox medicine over decades, supported by the unshakeable convictions of Soviet and foreign authors.

It was at this time, in 1965, that she first became acquainted with the Buteyko Method. She’d heard of the Boy-Wonder from Akademgorodok, but their paths had never crossed. At the end of April, she needed more advice about a patient who had both TB and bronchial asthma. Dr Goncharova decided to take him to Buteyko’s mysterious laboratory. When she arrived, a middle-aged woman suffering from a suffocating attack was being carried in on a stretcher. Her face was so contorted with convulsions that it was frightening to see. Dr

Goncharova stepped aside, feeling her legs go weak. Since her third year at medical school she hadn't been able to stand the sight of asthma patients writhing in the grip of an attack.

Her reaction dated from her second winter as a student. Her high-spirited group and their professor had approached a middle-aged woman lying on a trolley in the middle of a corridor. They could hear her laboured, irregular breathing even without a stethoscope. But still the smiling professor asked the group to take turns to listen to the patient's chest. Naturally, each of the twelve students asked the patient to breathe deeply. Her wheezing grew steadily worse during these examinations, and the group had only taken a few steps away from her when she began to have a massive suffocating attack. Despite the professor's efforts to stop the attack, she died in front of their eyes.

Wilma never forgot this tragic episode. It was only much later when she was working with Dr Buteyko that she realised that the group had 'over-breathed' the woman to death during their examination. However, before she learnt about the diseases of deep breathing, Dr Goncharova was convinced that asthma was incurable, and she was more afraid of the sight of an asthma attack than anything else in the world.

Then, at Dr Buteyko's Laboratory, she saw the Doctor perform miracles. He managed to stop severe attacks in minutes without using any tablets or injections. Wilma couldn't believe her eyes when the patient whom she had seen carried in on a stretcher fell on her knees and started kissing the embarrassed doctor's hands as he tried to raise her to her feet. This woman, who had been awarded the title of 'Hero-Mother' for having at least ten children, would have prostrated herself at her benefactor's feet and touched her head to the floor, such was her gratitude. For 25 years she had tried every type of medical treatment imaginable (even the most barbaric, such as bronchoscopy).

As the saying goes, 'seeing is believing'. Wilma's amazement knew no bounds. When she returned to the Laboratory the next day, the patient was already walking around unaided. She had been taught how to stop her attacks by herself and had clearly learnt this lesson well.

Buteyko examined Dr Goncharova's patient. He commented that the volitional elimination of deep breathing helped other disorders apart from asthma. The patient was strong and the TB had not progressed too far. Dr Buteyko told Dr Goncharova about cases where he had practically cured TB and showed her the notes in his records.

It was as if Wilma had crossed the Rubicon. All the other authors that she had read seemed to disappear. The simple, modest head of the Laboratory of Functional Diagnostics became her idol. His discovery of the diseases of deep breathing contradicted everything that her professors had taught her in medical school. His ideas went against leading Soviet and foreign academics, but he was right! Of course, she wasn't instantly convinced, but the memory of the Hero-Mother patient kneeling in gratitude deeply impressed her. She also understood

that as Buteyko's theories were anathema to official medicine, taking his side was risky, even for an ordinary head doctor with an unblemished record. As an ethnic German, oppressed by the State until comparatively recently, it was doubly dangerous. People hadn't forgotten the post-war trials of the followers of Weissman and Mendel, 'apostates' loudly denounced as Nazi sympathisers. If difficulties should arise, how would she, a German former exile, be branded? She could easily stay quietly on the sidelines - she had swallowed enough bitter pills in her lifetime.

Dr Goncharova could have refused to get involved for other reasons - for example, out of a desire to wreak some kind of revenge on the people who had sent her into exile. As a doctor, she understood that thousands of Soviet citizens were dying every year because they did not have access to the Buteyko Method. However, she had sufficient strength and courage not to confuse the entire Soviet nation with its ruling elite. She was ready to go to any lengths and even to run the risk of damaging her own medical career. When she saw the health establishment's hatred for Buteyko, she mentally prepared herself for the worst. However, even the prospect of ending up behind barbed wire didn't deter her. She was resigned to the fact that the terrible year of 1937 would cast a shadow over the rest of her life. Besides, it wouldn't be so terrible to suffer at Buteyko's side. The hundreds of patients she would save using his Method would more than compensate for any hardship.

Dr Goncharova asked Dr Buteyko for a job in his Laboratory. However, the straitened Laboratory could not even afford to give her a miserable salary as a senior assistant and she had to wait 18 months. When her staff found out that she intended to leave, they tried long and hard to talk her out of it. They all said that getting mixed up with Buteyko was a mistake and that the Laboratory would soon be closed. They also pointed out that life on 98 roubles a month would be very different than life on her current salary of 300 roubles.

"What are you talking about! I'll be working with the unique combine-complexator, which provides mathematical data on diseases such as we can't even imagine!" Wilma defended her decision to her well-wishers. "You should go there yourself and have a look. Then maybe you'll change your tune."

She organised a couple of lectures on the Buteyko Method at the TB hospital. Remembering Buteyko's maxim that the Method could be understood by spending three days in the Laboratory, she drew up a timetable of three-day visits for her staff and made sure they went. However, these visits by her co-workers didn't produce the desired effect.

"I used to think that when they got wind of my discovery, hundreds of local doctors would beat a path from Novosibirsk to Akademgorodok," Buteyko reflected bitterly. He often made similar observations to his Siberian supporters.

"Indeed, Doctor," Wilma was forced to agree. "I sent almost all of our doctors to your Laboratory, and I didn't begrudge any of them the time. But in the end..."

she shrugged her shoulders. "They ooh-ed and ah-ed but none of them mastered the Method. They'd say, wonders never cease... and that was it."

"There seem to be two factors," replied the Doctor after a moment's thought. "The first unpleasant fact is that a prophet is never honoured in his own country. Miracles can happen somewhere out there, far, far, away." He gestured towards the window. "But not here, right in front of them. They think it's some kind of showy circus trick." He dropped his head despondently. "The second factor is that in order to understand the Method, you need to believe that some disorders are induced by deep breathing, and that is far from easy. Doctors have worked long and hard to teach us otherwise. And who I am to contradict the authorities?" He glanced down at his own slight frame. "I'm not an academician, nor a Nobel prize winner. I just have a PhD. We can try to make people overcome this obstacle. It won't be easy..." He was lost in thought for a moment. "As good old Freud pointed out, it doesn't matter what the facts are. People believe what they want to! They are taught to believe the authorities on their pedestals. And as Freud says, they don't care that these authorities could be full of hot air..."

CHAPTER 31

The magic formulae of Buteyko's equations linking respiratory parameters. The Method is stolen. Storm clouds gather

Over a year had passed since Dr Goncharova became acquainted with Buteyko. Her staff had implored her not to abandon them for a laboratory doomed to closure. The Doctor's two talks at the TB hospital aroused lively interest, but they didn't inspire anyone else to leave. Wilma meanwhile waited until a position became available. When the phone eventually rang on 24 February 1967, two days before her birthday, she didn't hesitate for a moment.

During those first weeks in the Laboratory she worked like never before. She forgot her colleagues' warnings about the Laboratory imminent closure and her meagre salary (a third of what she had previously received). A new world was opening up for Wilma, where humans had power over their own bodies. Mankind's potential abilities were enormous, but had as yet been little researched. She wanted to probe more deeply.

The complexator with its screen displaying results from oscillographs and other clever instruments provided data about patients that no other clinic in the country had access to. This machine would amaze any doctor who had the courage to think differently. It measured the CO₂ content of blood, of the alveoli, and of inhaled and exhaled air. At the same time it displayed changes in blood pressure and heart rate. No doubt it could also read the patient's thoughts...

Buteyko had designed and constructed half of the complexator's instruments himself, and this extraordinary apparatus helped him in his work on the diseases of deep breathing. Information that in other clinics was collected using painful procedures was provided at a single stroke by the complexator, with far greater speed and accuracy and with no discomfort to the patient. Moreover, it gave information that other clinics were not able to provide, even using the most barbaric investigative procedures. The complexator substituted advanced science for scalpels, tweezers, catheters and other implements of torture. As the saying goes, the spade is no match for the digger.

The complexator gave the Doctor a far clearer view of the patient than much more dangerous x-rays, for example. In combination with his Discovery, it enabled him to give an exact mathematical description of a wide range of common modern diseases. In a matter of eight years or so, Buteyko managed to throw light on questions that yogis had struggled for centuries to answer empirically. Regardless of the amazing results attained by powerful yogis, they were working in the dark, almost by touch. Dr Buteyko showed that it was possible to convey the magic of Indian healers in the exact language of numbers and symbols. He literally mathematicised medicine. Although his detractors hinted that everything he discovered was already contained in ancient tracts, they could not dispute this fact.

His poster on the Equations Linking Respiratory Parameters alone would have earned Buteyko the prestigious qualification of Doctor of Science, if not entrance

to the Academy of Sciences. Wilma was curious about it from her first days at the Laboratory. Among the many charts and diagrams displayed on the walls or on stands, this poster attracted her attention by its brevity. Four simple equations (which reminded her of school) were clearly written in black ink on white paper. The first said

$$R \text{ (mm H}_2\text{O)} = 76.31 - 7.44 \times \text{CO}_2$$

"So you're interested in our calculations?" asked Buteyko, noticing that Wilma couldn't tear her eyes away from the poster.

She nodded her head vigorously in reply.

"Yes, very. It's the first time I've seen mathematical formulae in a clinic."

"They're the basis of our work," said the Doctor, standing with his legs slightly akimbo and looking at the poster through narrowed eyes. "You won't see anything like them in any other clinic in the world."

"But what does that mean?" Wilma pointed at the first formula.

"Ah! That's an amazing thing. I had to make a lot of sacrifices to have the chance to show it to you and other visiting doctors and to put it forward for publication in journals." The Doctor's kindly eyes darkened. "You see the problems we have here." He gestured at the cramped laboratory. "We work in poor conditions, we don't have enough staff or money for equipment. At least I managed to build the complexator before the persecution started." She could hear the bitterness in his voice. "I've been hounded and hounded. And yet I could have avoided these problems. A proposal was made to me." He shrugged his straight shoulders. "I could have a first-class laboratory and the best employees. I could investigate the implications of my Discovery for days on end. Oh no, not abroad." The Doctor picked up on Dr Goncharova's perplexity. "I could do it in this country."

"So why didn't you?" exclaimed Wilma, fascinated by the unexpected turn in the conversation. "What was the proposal and why did you refuse?"

"It was none other than Academician Parin who made the proposal," Buteyko said, not appearing to notice Wilma's mounting emotion. "Have you heard of him?"

"Of course! He's the country's top physiologist," she replied.

"That's right. And he's the leading specialist on the space programme," said Buteyko in a slightly different tone. "Well, Academician Parin suggested that I come to work for him in Star City, the space research and training facility. Can you imagine the conditions there?"

"Absolutely," replied Wilma, beginning to guess what the problem was.

"I would have everything that a real scientist dreams of." The Doctor's voice rang with absolute certainty. "But then..." he picked up a pointer from a desk and drew an invisible line under the formula that had piqued her curiosity, "these formulae would mostly be read by chaps in generals' uniforms. Do you understand what I'm getting at?"

"Yes, I do..." Wilma copied the first formula into her notebook, to be on the safe side.

"The conditions would be superb, but," Buteyko raised his index finger in warning, "the volitional elimination of deep breathing and my Discovery would be hushed up immediately. Try telling patients about them then, or publishing in foreign journals. You'd be banged up for betraying state secrets, like Academician Parin was himself." The Doctor gave a bitter laugh. "All Parin had done was to share some of his medical discoveries with his American colleagues, with permission from his superiors. That's how it is..." Buteyko took a step closer to the poster. "Everything in this life must be paid for. The Academician wanted to help sick people, even if they were in America, and he was put in the slammer. I don't want to follow his example, which means I have to put up with persecution and difficult circumstances instead of working at Star City. But I would rather live on bread and water than allow my Discovery to be hushed up." He banged the wall next to the poster with his fist. "Just one person saved by my Discovery outweighs all the advantages of a secret laboratory."

"But surely you're exaggerating!" Wilma blurted. "Maybe it wouldn't come to that. Aren't they human in the upper echelons? Surely some of those generals must be sick, or their children. Maybe they wouldn't make you keep everything secret? And just think of the wonderful conditions you would have for research!"

"Oh, you blessed innocent!" Buteyko broke into a coughing fit. "It has all happened before. Why do you think we in the Soviet Union have heard so little of Haldane and Priestley's theory that the breath is regulated by CO₂? Their monograph was published here in 1937, and that was all. It was because the British navy and air force took an interest in their discoveries." The Doctor slapped his knee in indignation. "We're only interested in making war..." He folded his arms. "The atomic bomb is another example. I don't want my Discovery and Method just to contribute to our country's strategic aims. I don't want them just to be used to teach air force pilots and navy sailors how to set records for endurance. That's what happened in Britain - and the sick people who could have benefited from Haldane and Priestley's revolutionary theories got nothing. I want to heal people and save them from death, not to see them killed because pilots flying at high altitudes and sailors on submarines have been trained to breathe less. Yes! They would be ideal soldiers for low-oxygen conditions. But I want people to be super-healthy, not super-killers. Medicine should be given to the sick, and not to those that make our species sick."

Wilma saw that the Doctor was very keyed-up.

"Mankind is already mired in depravity and war. Who knows where it could lead." Buteyko took his head in his hands. "But this I know for sure: the modern world can only be saved by reason, and reason alone.

"Take this formula. By finding the value of R in patients with asthma, hypertension or angina or any other disorder induced by deep breathing, a doctor who has trained with us can determine the extent of the disorder's progression. You see, R represents the resistance of the bronchial tree to the flow of air inhaled by the patient, expressed in millimetres of water. In a healthy subject with a CO₂ level of 6.5% in his body, this resistance will be around 31.7 millimetres of water. In a patient with a reduced level of CO₂, it will be higher, in exact proportion to the extent that the patient's body has been damaged by deep breathing.

"It's very simple as you can see, but neither doctors nor patients know about these formulae. Often the stage of progression of a disease is unclear, and yet here it is, expressed by an exact mathematical formula.

"So what can I do? In order to avoid my current problems and persecution, I would have to hide these and similar formulae in the comfortable prison of Star City." The Doctor's eyes blazed. "No, and again no, even if my difficulties were multiplied by a thousand. Even if I end up on the gibbet or in the madhouse. These formulae will remain accessible to anyone who needs them. Pilots and sailors can find out about them on an equal footing with everyone else. Any scientist who can kit out a laboratory like ours can provide a completely accurate diagnosis. Any patient who knows of their existence can request such a diagnosis from doctors and doesn't need to put up with, for example, a bronchoscopy that produces such inaccurate results but causes such unbearable suffering to the patient.

**EQUATIONS LINKING
RESPIRATORY PARAMETERS**

R (mmH₂O l/s) = 76.34 - 7.44 x CO₂

CO₂ = 6.38 - 0.049 x RR

RR (min) = 23.4 - 0.29 x BHT

BHT(s) = 19.98 - 0.082 x R

thebreathingman.com

R = resistance
RR = respiration rate
BHT = breath holding time

"These formulae were my achievement." The Doctor smoothed his untidy hair. "Yes, we're poor and oppressed, but our formulae and blueprints can be displayed at any conference. People take photos or write them, or else learn them by heart. You could say they're alive." Buteyko affectionately stroked the poster. "People throughout the country are learning about them. Foreign journalists attending medical conferences in Moscow jot them down. They're being printed in foreign journals, and hopefully one day, the whole

world will be talking about them!" The Doctor raised his head in pride. "Science,

particularly medicine, must be international. People fall sick all over the world. Can we really afford to be isolationist?"

"And what do the other three formulae mean?" questioned Dr Goncharova, ever the keen scientist.

"Which ones?" asked Buteyko, somewhat taken aback by her unexpected interruption while he was in full flow.

"Those ones." She read aloud the remaining three formulae.

"Well, you already know what CO₂ is," said Buteyko with a smile. "RR means the respiratory rate per minute. And the BHT is the breath holding time in seconds. The four formulae connect the parameters of respiration."

Wilma immersed herself in the vast ocean of Buteyko's discoveries during her first weeks in his Laboratory. It was all so fascinating that she had no wish to return to mundanity. However, she was soon forced to when it turned out that people came to Buteyko's Laboratory not only to acquire experience - they also came to steal.

Wilma met one of these thieves in April 1967. People had different ways of celebrating the 50th anniversary of the Bolshevik Revolution. Some celebrated it with scientific and medical achievements - others with grand larceny.

Everyone would consider stealing a hundred roubles a crime for which a court would pass sentence. But for some reason, Dr Dzagoyeva from Kazakhstan didn't consider it a crime to publish Buteyko's Discovery under her own name. And instead of a prison sentence, she even got a patent for a discovery that wasn't even hers. This took her less than a year - when Buteyko hadn't managed to get one despite his 15 years of work.

When Dr Goncharova met the full-figured, rosy-cheeked doctor from Alma Ata, she could hardly have expected such 'unusual' abilities. Only her feminine intuition picked up on the insincerity of Dr Dzagoyeva's artificial smile. Buteyko, however, didn't receive many visits from doctors with PhDs, so he greeted Dr Dzagoyeva, a head of department in the Kazakh Research Institute for Tuberculosis, with especial warmth.

"Show her everything, from beginning to end. Answer any questions," he instructed Natalya Voronova loudly, after he had talked to their visitor for half an hour. Wilma tagged along.

"It's amazing, simply amazing!" Dr Dzagoyeva continually exclaimed as she explored the Laboratory.

She was fascinated by everything: by the complexator (which, she claimed, looked like a time-machine from a novel), by the charts and diagrams, and most importantly, by the patients who were finishing a course on the Buteyko Method.

She was particularly impressed by the fact that they included TB patients. When she learnt that Dr Goncharova was a TB specialist, Dr Dzagoyeva positively radiated happiness.

Dr Dzagoyeva spent ten days or so at the Laboratory. She studied the entire course on the Method, and wrote copious notes about the VEDB and diseases of deep breathing in her large green notebook. She examined the complexator from every angle and talked to cured TB patients. Before she left, she thanked Dr Buteyko for his generosity. She loudly deplored the fact that the Method was neglected by mainstream medicine and that Buteyko had not received a patent for his Method.

"It's terrible that they haven't given you intellectual property rights in 15 years!" she exclaimed, narrowing her eyes. "So many people come to visit you. Someone could easily publish your findings under their own name. And then just try to sort it out..."

"But what can I do?" asked Buteyko, making a helpless gesture. "To be exact, I filed an application five years ago, and it's still with the authorities. But I've been working on the Method and my Discovery for ten years more. I've lived through 15 years of turmoil..."

"Good heavens," Dr Dzagoyeva almost groaned. "How bureaucrats make scientists suffer. Never mind, Doctor!" She gently took his hand. "You have supporters, and I hope their number grows daily. They will help you. You can't keep a treasure like that secret." She turned to the complexator. "Your Discovery deserves the highest awards. Personally I ... we all..." she glanced to the sides, as if literally looking for support, "we all are willing to make every effort. You must believe that."

Even after Dr Dzagoyeva had left the Laboratory, Wilma couldn't get rid of an uneasy feeling. She couldn't explain why even to herself. She just hadn't liked the woman - perhaps because of her over-stated, continual praise of Buteyko, perhaps because of the unctuous glances cast by her blue eyes. There had definitely been something repugnant about her. So when they heard rumours a couple of months later that Dr Dzagoyeva and two colleagues were writing an article on the excessive and inefficient ventilation of the lungs in TB patients, she knew her intuition hadn't deceived her.

Not only was Dr Dzagoyeva writing an article without reference to Buteyko, she and her colleagues had also applied for a patent for a technique for treating TB patients who were suffering from 'inefficient ventilation of the lungs'. This technique seemed to be a pale imitation of the VEDB. She had only carried out trials on two or three groups of patients, but that didn't stop her filing an application to the highest authorities. A former patient of Buteyko's from Alma Ata, had attended Dr Dzagoyeva's classes for patients and public lectures at her Institute. He was almost crying as he told the astounded Buteyko how the Method was being distorted.

"You should see what she's teaching those poor patients," the man said, his voice trembling. "At the beginning of the course, she says that the physical and breathing exercises commonly used to treat TB patients with 'excessive and inefficient ventilation of the lungs' (she's made up that little phrase, 'inefficient ventilation'...) are not effective enough. Doctor!" The man looked at Buteyko imploringly. "She's playing such shabby tricks, on both you at the Laboratory and us patients. These deep-breathing exercises aren't just ineffective - they are deadly for TB patients. But this doesn't seem to worry her.

"Why is she doing this? She'll encounter the same opposition from academics as you have, although 'not effective enough' already sounds like more of a compromise. And she doesn't mention you, your Discovery or the VEDB at all. She's trying to put a good face on a bad business." Buteyko's former patient was breathless with emotion. "And do you know what she's saying in order to avoid accusations of theft? She's propounding a new technique for normalising pulmonary ventilation." The man crossed his legs. "You'll never believe it, Doctor. She's saying that patients should hold their breath after breathing out. Cross my heart." The old man indeed crossed himself. "She says that this ensures the correct respiratory volume. And then she brazenly advises that for 'greater effect', patients should stand up and do exercises while holding their breath on the in-breath. This supposedly helps the patient's respiratory system become accustomed to greater physical exertion..."

"And she intends to publish such rubbish and apply for a patent!" cried Buteyko despairingly.

"She's already submitted her article to a Kazhakh journal, and she and a couple of hangers-on have submitted an application to Moscow."

"Do you understand what she's doing? She hasn't only stolen my Method. She's killing people! Sick, trusting people! But where could she have picked up such rubbish? To spend ten days in our Laboratory, fill almost an entire notebook with notes and then spout such nonsense!"

Natalya, who was listening intently, nodded her head in sympathy.

"We just use the control and maximum pauses to assess a patient's progress, and we continually tell them - holding your breath won't cure you. What will cure you is gradually reducing the depth of your breath by relaxing your diaphragm until you feel a slight shortage of air. But as I understand it," he looked at the man from Alma Ata, "she's only talking about holding the breath. These pauses will make patients over-breathe and will fuel the progression of TB!" Buteyko sank into the chair that Dr Goncharova had pushed towards him. "And what do you think of patients doing exercises while holding their breath on the in-breath?" The Doctor noticed that in his agitation he was gripping the tail of Natalya's coat. "I always explain to them that holding your breath is dangerous, particularly on the in-breath. Let alone standing up and doing exercises!"

"After the classes patients would say to each other in the corridor that they didn't feel any better," interjected the man from Kazakhstan. "In fact, some of them felt distinctly worse - they felt weaker than usual and they sometimes had relapses..."

"We should take Dzagoyeva to court!" Wilma almost shrieked. "We can't possibly allow this!"

"Agreed!" Natalya immediately supported her. "Why delay?"

"My young friends..." Buteyko shook his head. "Courts like hard evidence, and we don't have any. Her article hasn't been published yet, and she hasn't received a patent for her 'technique' either. Dr Dzagoyeva is a researcher in a scientific institute. She has the right to perform experiments. The experimental stage is exactly that - experimental, with a certain amount of trial and error. If we challenge her now, it will be easy for her to defend herself. I was just trying this and that, she'll say, my research isn't complete. So we'll have to wait until she publishes."

Wilma stamped her foot. "But then it will be too late..."

"Yes," Buteyko was forced to agree. "But we can't take her to court yet. The only thing we can do is write an official protest to the board of her institute. Whatever else, there are good scientists there who won't be indifferent to the fate of their sick fellow countrymen. Let's just hope that they hear the voice of reason."

Wilma wrung her hands in disbelief.

"If they don't, TB patients in Alma Ata are doomed," Buteyko added bitterly. "Far from helping them, she's harming them! But what I'm most afraid of," he stood up, "is that she might get the green light from the authorities and her article will be published and she'll get a patent for her 'technique' that will open up the whole Soviet Union to her."

"Is that really possible?" Natalya gasped.

"Unfortunately..." The Doctor pursed his lips. "They didn't manage to poison me or kill me off in a car accident, but there is another highly effective way to get rid of me. They can give accolades to this thief who has dressed my Discovery up as a technique for normalising pulmonary ventilation by holding the breath on exhalation. It's highly convenient for my opponents: it won't disrupt conventional medicine or undermine recognised authorities. And of course, it won't help sick people at all. Dzagoyeva's technique won't raise people from the dead, which means it doesn't represent any danger to inept health officials. Her patients won't demand that the Ministry of Health introduces her technique as widely as possible. Dzagoyeva will be the only one to use the technique, and everyone will be able to look after their own interests. But at the same time," Buteyko lifted his right hand, "the real VEDB and Discovery of the Diseases of Deep Breathing will be stopped in their tracks. Dzagoyeva hasn't mentioned them - she is just

propounding another therapeutic exercise, and there are already so many of them. But at the same time, her patent application concerns breathing, as does mine. They won't award two patents in the same area. They'll give it to Dzagoyeva, and that will be that."

Dr Goncharova listened to her teacher with undisguised horror. Despite her experiences of official medicine (fictitious employees on the payroll, the Head Doctor's drunken cavorting with officials in her office), she still couldn't believe it. Dzagoyeva had stolen and distorted the discovery of the century until it was no longer recognisable, then used it to 'treat' the unfortunate patients of at least one major hospital. The idea that the authorities might condone this behaviour was unthinkable!

If the complexator with its shining metal components really had been a time machine, she would have seen something even more terrifying. It didn't enter either her head or Buteyko's that their fate had already been sealed. The Ministry of Health's henchman-in-chief was already on his way to see them with the aim of closing down the troublesome Laboratory once and for all. It would all be very slick: Buteyko's Method would at last undergo clinical testing, by order of the Ministry of Health. They would traipse off to Leningrad to prove its efficacy in the same institute where Natalya had already twice proven its benefits (semi-officially, it was true). The trial would achieve a success rate of practically 100%, but the results would be distorted and falsified in a spurious final report by the institute's Director and his trusted assistant, Professor Chugunov, in order to please the Minister's henchman and to glorify Chugunov's ineffective powders. As she looked at the miraculous complexator and the posters displaying unique mathematical formulae, Dr Goncharova couldn't know that in just over a year, the Ministry of Health's henchman would order the Laboratory to be destroyed. Its staff would be scattered, and the unique complexator would be dismantled. Hospital cleaning ladies would use some of its parts to boil dirty linen. Fragments of Buteyko's precious posters with their priceless mathematical formulae would blow around the hospital yard.

Neither could Wilma Goncharova know that at the same time as the results of the VEDB's official clinical trial were being falsified, Dr Dzagoyeva would receive a patent for her 'technique' for normalising pulmonary ventilation. At that moment, she was just horrified by the man's account and Buteyko's grim predictions.

No-one in that room could have predicted that soon the official who held their fate in his hand would cross the Laboratory's threshold. Their research team would be disbanded, and the millions of patients whom they might have saved would be condemned to an inexorable death. This cruel act would sweep away an ocean of human life, orphan countless children and leave behind it a multitude of women who would never know the joys of motherhood. Nothing could stop it, and the Laboratory would be consigned to oblivion for long, dark decades.

CHAPTER 32

The Ministry official's fateful visit. The beginning of the inevitable end

When the day came for the Minister of Health's powerful henchman to visit, the sky did not cave in, nor did the ground tremble beneath his feet. The Laboratory staff were unaware of the real reason for his visit, but he himself knew precisely what his mission was. Those who saw their relatives dying in the decades to come had him to thank - him and Professor Pomekhin, Professor Chugunov and numerous other like-minded doctors whose determined struggle against Buteyko paid off when Zarubin visited the Laboratory for that first and last time. Afterwards, they and others like them would try to calm the millions of sick people by writing in national newspapers about increased numbers of hospital beds and medical staff. However, they would never write about how they closed the Laboratory and left seriously ill people to die slowly and painfully on those same hospital beds under the care of those same healthcare 'professionals'. History is written by the victors.

The day of the visit began as normal. It was a warm June day in 1967. Dr Buteyko was looking at the duty diary and making notes. He laughed and joked with his younger colleagues. On the stroke of 10 (Buteyko glanced at the clock), Zarubin appeared at the doorway.

Zarubin's appearance may have been unprepossessing (he was bald, fat and ugly) but this did not in the least detract from his authority. He was feared and rightly so: the Minister mostly sent him to punish and destroy. Zarubin did his work well. He could calmly collect indisputable evidence proving the guilt of any victim who had provoked his master's wrath. He carried out the Minister's will, and hence his powers over the health care system were practically unlimited. Buteyko recognised him at once, and his heart pounded as he saw Zarubin's oily gaze slide around the Laboratory. However, he controlled his distaste and stepped forward to greet his guest.

"Excuse my sudden visit," said Zarubin, lumbering across the threshold. He was followed by two officials from the regional health board. An administrator from their Institute brought up the rear.

"I was just passing through your area, inspecting the local health authorities." He nodded at the small official standing to his right. "I couldn't resist dropping in. Your Laboratory is almost legendary, Dr Buteyko!" He fixed his oily gaze on the Doctor. "The things that newspapers are writing about you are simply unbelievable..."

"Why do you think they are unbelievable?" Buteyko was gradually beginning to gather his wits. "National newspapers sometimes do publish true stories."

Zarubin seemed to recoil slightly from this riposte. Dr Goncharova, who was standing within earshot pretending to examine a print-out from the ballistocardiograph, suddenly realised that they were talking about an article published the previous month in a well-respected national newspaper entitled

'Should you really be breathing deeply?'. The writer's sister had been cured by Buteyko of asthma, hypertension, angina and a host of other conditions, and the article passionately denounced the Ministry of Health for its bureaucratic and apathetic response to the Discovery.

Two days before the article was published, Martynov, associate professor at the Novosibirsk Medical Institute, was ordered by the Ministry of Health to arrange a meeting with Buteyko. Martynov had once sought to subvert the medical authorities (Wilma remembered listening to his fiery lectures as a student), but he was now a Corresponding Member of the Academy of Sciences and as such, a devoted adherent of these same authorities. The discussion was long and heated. Martynov believed that research on the volitional elimination of deep breathing should be stopped immediately, and he practically shouted at the Doctor. The article took the wind out of his sails, however. At their next meeting, Martynov promised to do everything possible to help. The Ministry of Health did not forget this failure by the local health authorities to stifle Buteyko.

Wilma smiled to herself at the memory. She wrongly supposed the article would protect the Doctor from the Ministry of Health, and she even hoped for Zarubin's support. But Zarubin had not spent 30 years of his life reaching the top of the career ladder to be shouldered aside by some upstart. Today Buteyko was claiming to have made a discovery of worldwide significance, tomorrow he would be a member of the Academy of Sciences, and before you knew it, he would be the Academy's President. But the authorities had tried and tested ways of getting rid of stubborn opponents such as Buteyko.

Smiling politely, Zarubin looked around the Laboratory, but memories of his recent trip to the USA forced themselves into his mind. Zarubin couldn't forget the New York cocktail party where he was subjected to long questioning by representatives from *Who's Who*. They were intending to include an entry on Buteyko in their next edition, and the Doctor had been invited to give a lecture tour. They were perplexed by the Doctor's mysterious failure to visit or even reply to their letter. Then Zarubin was approached by a highly-placed surgeon and pharmacologist. In an extremely roundabout fashion, these representatives of the Western health care industry led him to understand that there was astonishment in various powerful circles that the Soviet authorities tolerated a charlatan like Buteyko.

"Who's Who is chasing after sensationalism. Buteyko is a threat to surgeons and pharmacologists everywhere, and he is a citizen of your country after all," said the interpreter, trying to avoid offending Zarubin.

"I understand what you're saying, gentlemen," he said, rising from his armchair. "I'm a cardiologist, like you." He touched his transatlantic colleague's shoulder. "We're facing the same problems. Let's try to solve them together..."

When Zarubin got back to Moscow, he immediately called a meeting and demanded what on earth was this 'Buteyko Method' that his American colleagues were talking about. A stony silence met his question - Zarubin's

underlings at the Ministry of Health were well aware that their master already knew all about Buteyko's Discovery and no-one dared to instruct him. However, when Zarubin calmed down a little and asked why a nobody with a PhD was being allowed to rock the boat with impunity, several voices were raised at once in reply.

"Buteyko's very cunning. He's surrounded himself with lots of female staff who're all crazy about him. Try reasoning with a load of women who are head over heels in love and have blind faith in him..."

Zarubin didn't waste any time. The Laboratory's time was up!

... "They do sometimes write the truth about us," said Buteyko, showing Zarubin the complexator. After he had recovered from his initial shock, Buteyko naively thought that the official had indeed come to find out about the volitional elimination of deep breathing for himself. And that means, thought Buteyko, that if we convince him, we can count on real help from the highest authorities.

"We study human physiology here. These are mathematical formulae that define the relationship between various parameters." Buteyko gestured to the 'Equations Linking Respiratory Parameters' poster. "At the moment, we're particularly working on purely medical problems such as how to treat asthma, hypertension and angina."

Zarubin turned away for a second and coughed into his fist.

"No-one has yet discovered what causes asthma," the Doctor continued, placing his own interpretation on the cough, "but I think I can explain it. I believe that asthma is caused by hyperventilation of the patient's lungs, as demonstrated by these formulae." Buteyko indicated the first equation. "I would like to prove this to you in practice." He looked over at a boy of around 12 who was coming into the Laboratory clinging to his mother and a moustachioed middle-aged patient standing to their right. "Dr Goncharova, if you could..."

Wilma nodded. She quickly connected up the ioniser and took a breath sample from all three patients. Zarubin watched in amazement as she deftly inserted tubes into the patients' nostrils. At a sign from Buteyko, she instructed the patients to breathe deeply. After just five breaths, the patients began to experience suffocating asthma attacks. The middle-aged man even started to turn blue.

"So much for 'breathing deeply' to treat an asthma attack, as currently recommended by official medicine," observed Buteyko happily to Zarubin, who was somewhat alarmed by the male patient's blue face. The two officials scowled.

"And now," Buteyko glanced significantly at Dr Goncharova, "just see how our principle for treating asthma works!"

"Reduce the depth of your breathing. Breathe quietly, even more quietly," Wilma instructed the patients, clearly pronouncing every word.

After a minute or two, the attacks completely subsided, much to Zarubin's astonishment. The patients returned to normal. Colour suffused their faces, and a smile played on the boy's sunken cheeks.

"Well, well..." was the only thing that the shaken Zarubin could say - he had hoped to see the opposite result! A vein in his right temple throbbed from tension. "I was told all sorts of stories about you, but I can see," he turned to the stony-faced officials, "you're achieving real results."

"Why are you here?" Zarubin went up to the blonde mother, whose son was clinging to her once more.

"What do you mean, why?" replied the woman, stroking her son's head. "I came to be treated by Dr Buteyko! I've been suffering from asthma for about 15 years, and Volodya has had it practically since he was born. We've been to all the hospitals, but they couldn't do anything, but we're already feeling much better after four days here."

"I see," murmured Zarubin ambiguously and he turned abruptly to face Buteyko. "Let's go into your office."

Sensing the importance of this conversation, Natalya and Wilma slipped into Buteyko's office behind them. They were forced to hold their conversation standing up as there wasn't enough space for everyone to sit down.

"How many sessions do you need to get a result?" asked Zarubin, leaning on the Doctor's desk.

"Why are you talking about 'sessions'?" replied a frowning Buteyko. Warning bells were ringing in his head - his most vehement detractors described courses on the VEDB as 'hypnosis sessions'. "As I explained, I've discovered the cause of asthma - deep breathing." The Doctor deliberately avoided mentioning hypertension and angina, feeling he needed to hammer away at just one point. "The mechanism is triggered by a shortage of carbon dioxide. I showed you our formulae! In particular, bronchospasms are caused by a decrease in CO₂ levels. We've just demonstrated that to you on our three patients." Buteyko nodded in Dr Goncharova's direction.

"Yes, yes, of course." Zarubin forced himself to smile at Wilma. "It was astounding. How many patients have been treated by your Laboratory to date?" He turned to the Doctor again.

"To date?" Buteyko wrinkled his forehead slightly. Now wasn't the time to explain to him that their shortage of staff meant they frequently didn't have the time to keep proper records. Buteyko therefore decided to give the far lower number of patients for whom they had complete notes.

"We have around 600 registered patients," replied the Doctor as Natalya gasped at this greatly reduced figure.

"And what is your success rate?" Zarubin removed his hand from the desk. "Ninety per cent?" His blue-tinged lips twisted in a sarcastic smile. "Even 100?"

"We don't aim for record-breaking figures," the Doctor replied with unhurried calm. "It's more important to us that our patients really do improve their breathing. About 70% manage to do this, wouldn't you say, Dr Goncharova?"

"That's absolutely right!" said Wilma, more loudly than necessary.

"We can't cure patients who don't manage to correct their breath," said Dr Buteyko in conclusion.

Zarubin stroked his massive chin. "Well, that doesn't matter." Then, changing the subject he continued, "Seeing as we're dealing with practical matters and not fantasies, let's settle the question in a concrete fashion. We'll organise an official trial of your Method in Leningrad. If it is successful, we'll give you a department with 50 or so beds. Would that suit you?"

"Of course! That's what we need more than anything." The Doctor was overjoyed.

"You probably already know Academician Rebrov, who is the director of the Leningrad Asthma Institute," continued Zarubin in an innocent tone. Rebrov would have buried the Method in five minutes if he could.

"I'm acquainted with Professor Chugunov, who works under him," replied Buteyko unsuspectingly.

"Wonderful!" Zarubin clapped his hands. "That's settled, then. You need to come out of the shadows into the 'field of operations', so to speak. If the results of the trial are positive, we'll give you additional money for equipment and staff. Go forth and labour for the glory of Soviet medicine!"

He fixed his eyes on Buteyko and shook his hand with emotion. Nodding to Natalya and Wilma, he strode heavily from the office.

Long after Zarubin and his retinue had left, Buteyko, Wilma and Natalya stood looking at each other in silence.

"Well, we've been waiting for an official trial for a long time," said Buteyko eventually, breaking the oppressive silence. "A department with 50 beds, equipment, staff... it's what we dreamed of."

"Indeed," replied Dr Goncharova, somewhat vaguely. "The Ministry of Health can give us everything if it sees fit!"

They fell silent for a while, each of them imagining a new laboratory. They all imagined their future was bright. A high-ranking official had visited them, and his promises of beds and equipment couldn't just be empty words. Of course, this was all on the condition of a successful trial, but surely they didn't have anything to worry about - Natalya had carried out two clinical studies in Professor Chugunov's institute, both of which had received excellent results. And this time, Natalya wasn't going on her own. Everything would be fine. Everything had to be fine, otherwise what did they, and thousands of patients, have left to hope for? Zarubin had surely understood that and would help them. They didn't need anything extraordinary, after all - just proper working conditions. And freedom from persecution...

On that day, the whole country was discussing the theses recently published by the Central Committee of the Soviet Union. The General Assembly of the United Nations was hotly debating whether to condemn Israel's aggression in the Six-Day War, which had taken place three and a half weeks ago. In other words, life was going on as usual. Only these three colleagues, united by one idea, had been thrown off balance by Zarubin's visit. Their thoughts were dominated by the subject closest to their hearts - the future of their unique Laboratory, which hung by the thread of official approval. They couldn't see that their Laboratory was already doomed. Zarubin had hardly closed its door before the lid of its coffin began to be nailed down.

They soon heard that soon after his return to Novosibirsk, Zarubin called an emergency meeting of the regional health authority where he described the Laboratory's work in highly derogatory terms. They're peddling all sorts of nonsense right under your nose, he said. They're hypnotising old and young patients left, right and centre. And to think they're claiming to have made some kind of discovery... Although the head of the regional health authority was not directly responsible for the Laboratory, which came under the auspices of the Siberian Branch of the Soviet Academy of Sciences, he received a severe dressing-down.

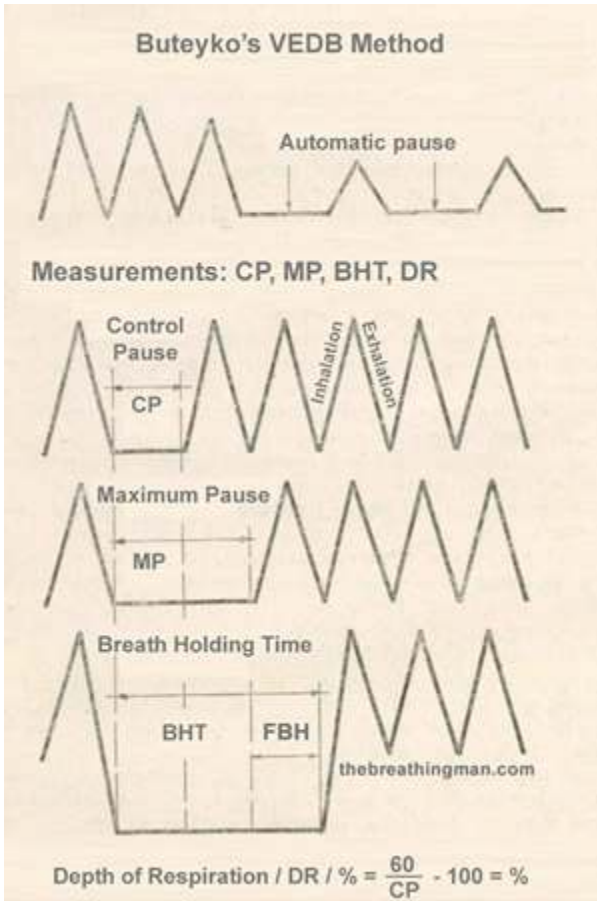
Buteyko hoped that this was simply a test of their determination and that the trial would settle everything for once and for all. However, his experience should have warned him that the powers-that-be decide everything, not clinical trials. And the authorities were not on his side. Why should Zarubin, a cardiologist, support a dangerous opponent of surgery? Buteyko's trial could produce wonderful results and it wouldn't matter, especially as Zarubin had carefully chosen which director would be responsible for the trial...

So while Buteyko waited, trusting in God and human decency, the Laboratory was counting its final days. Plans for its destruction were reaching their final stage of implementation. 1968 saw the Laboratory's closure, and the brightest star in the darkening sky was extinguished. The moans of those condemned to death echoed ever more weakly. This was the year when Yuri Gagarin died in a flying accident. This was the year when the Soviet tanks rolled into Prague. Darkness once more conquered over light.

END OF VOLUME ONE

APPENDIX

Other charts from the original 1993 edition and photographs of Buteyko and his staff & pupils



Abbreviations:

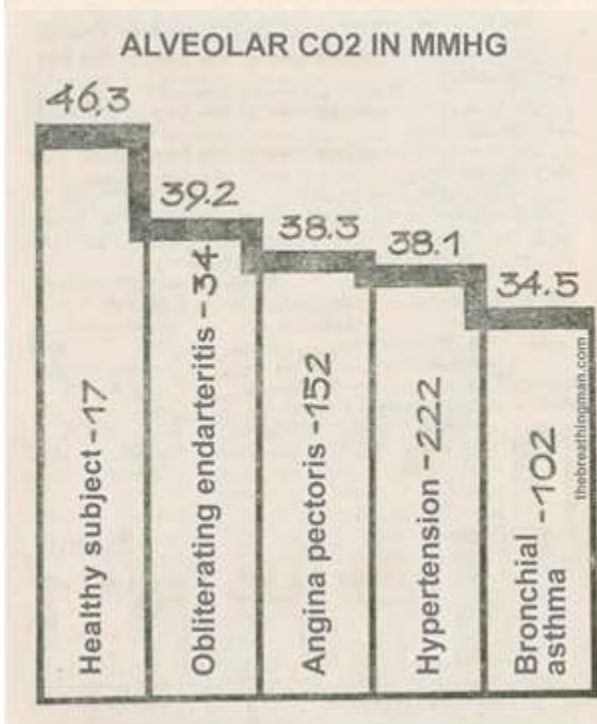
CP = Control Pause

MP = Maximum Pause

BHT = Breath Holding Time

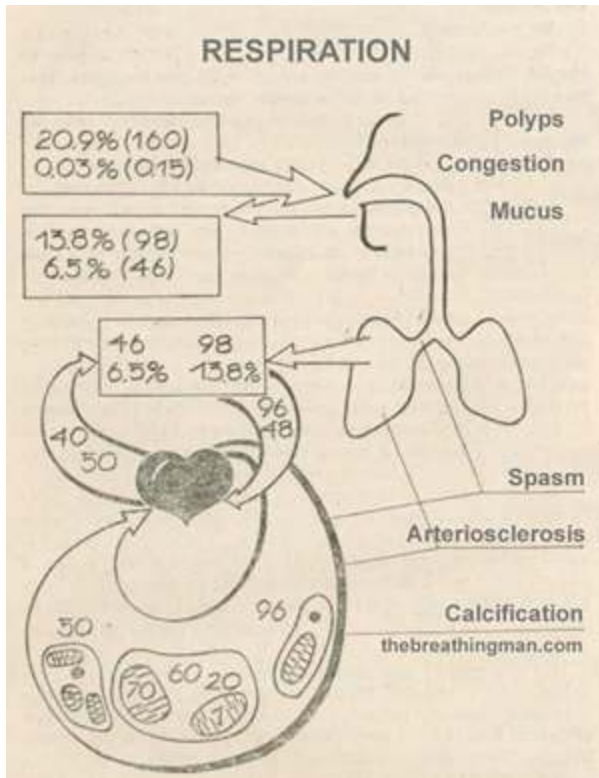
FBH = Forced Breath Holding

DR = Depth of Respiration



This chart shows the partial pressure of carbon dioxide in the pulmonary alveoli.

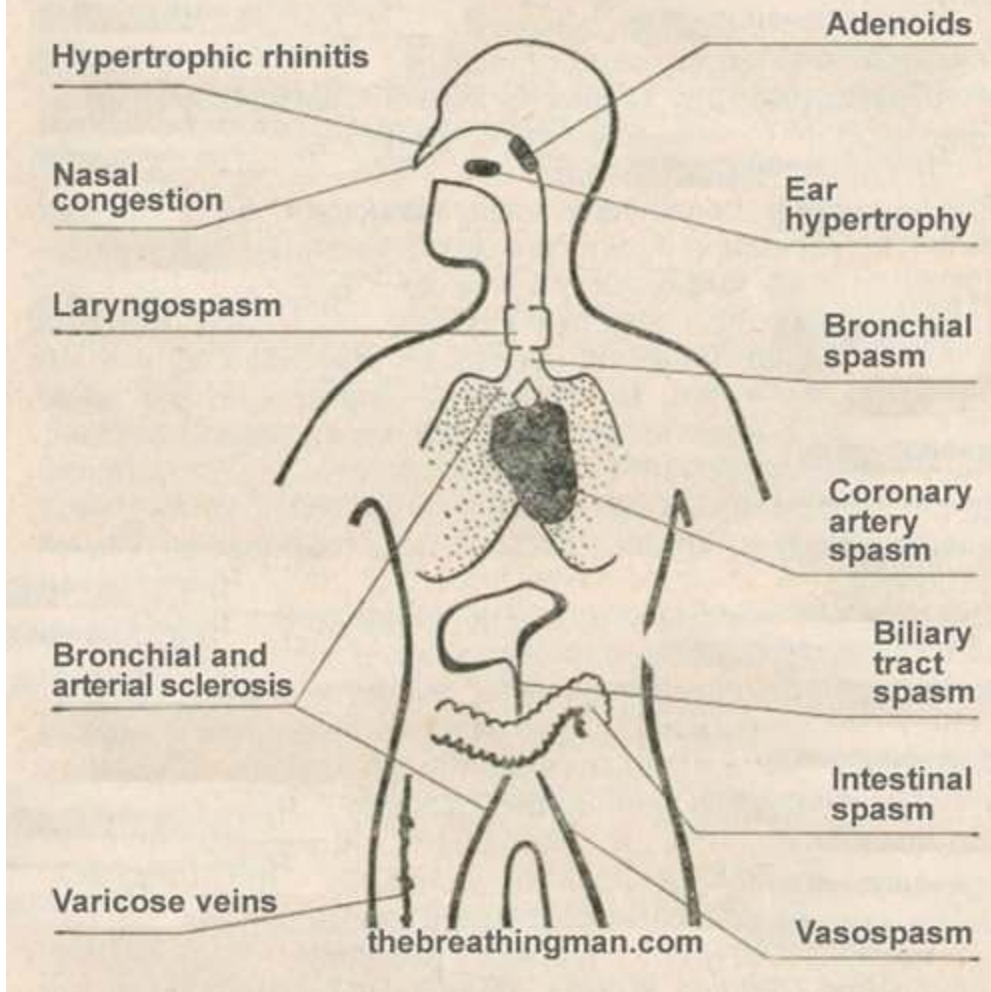
This measure is given for each disease in millimetres of mercury. Numbers next to each disease indicate the number of patients examined.



The Effects of Hyperventilation

1. Decrease in CO₂ in the alveoli and the blood.
 2. Increased metabolism and metabolic disorders.
 3. Bronchial constriction.
 4. Constriction of the blood vessels and other smooth muscle.
 5. Increased or decreased arterial pressure.
 6. Tighter bonding of oxygen to the haemoglobin in the blood.
 7. Increased blood cholesterol.
 8. Obesity.
 9. Increased partially oxidised metabolic products.
 10. Tissue damage.
 11. Breathlessness.
 12. Weakness.
 13. Headache.
 14. Dizziness. } Impaired blood circulation in the brain, stroke and so on.
 15. Insomnia.
 16. Irritability.
 17. Heart pain, / angina pectoris, myocardial infarction
 18. Feelings of cold in the extremities. / intermittent lameness
 19. Decreased efficiency at work.
 20. Noise in the ears.
- thebreathingman.com

PROTECTIVE MECHANISMS





*Buteyko and his staff & pupils
Winter, 1963*



The Laboratory, 1964



Laboratory staff, 1964



Buteyko and his staff & pupils, 1964



Dr Buteyko's Laboratory

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