

Close Your Mouth

**Buteyko Breathing
Clinic self help manual**

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**Give me your tired, your
poor, your huddled
masses yearning to
breathe free.**

Emma Lazarus 1849-1887

Foreword: Asthma - A Choice

This book explores:

- why you have asthma and more importantly how to reverse it;
- how to stop snoring and sleep apnoea
- how to unblock your nose
- how to stop wheezing and coughing permanently;
- how to reduce and often eliminate your dependency on reliever and preventer medications;
- how to exercise correctly and eliminate exercise-induced asthma.
- how to know when you are making progress;

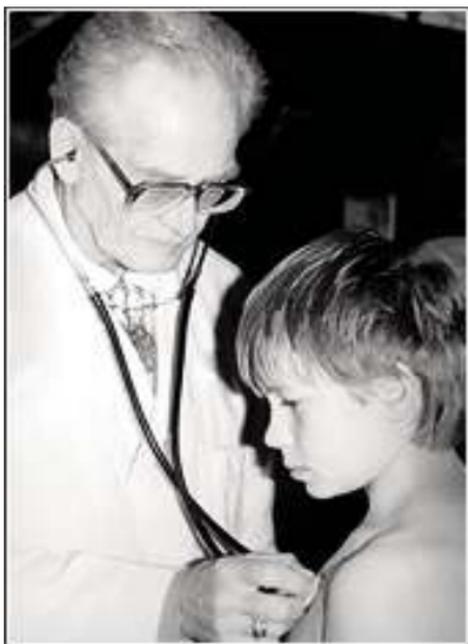
Changing your diet, removing triggers and physically exercising will help reduce your asthma by about 15%. This book addresses all of that, plus the remaining 85%.

My background to writing this book stems from my personal experience of having asthma for well over twenty years. Just like you, I know what it is like to feel constant chest tightness and to be awoken most nights fighting for breath. I know too well, that suffocating feeling when you want to draw more air into your body and no matter how much air you draw in, you still feel suffocated. For most of my life, I had to limit my physical exercise as I was never sure if my lungs were able for it. This was my life and it may be yours.

But I also know what it is like to breathe completely free without the need for asthma medications. I can now experience the highs of being able to run each week without fear of my airways closing. I sleep each night without being awoken struggling for air. My breathing is no longer a struggle and effort; it is effortless and gentle.

My overriding goal with this book and Buteyko Clinic DVD is to provide you with the tools to do just that.

In 1997, my life changed forever when I discovered the work of the late Russian doctor Konstantin Buteyko who uncovered the link between breathing volume and a number of conditions, including asthma. You might say that you have tried breathing exercises before and they were of no use. Yes, I did too, but this approach is a lot different. This is about learning to correct your breathing volume.



Professor Konstantin Buteyko (1923-2003)

This book is based on 50 years of research, and on my experience of teaching thousands of asthmatics through the Buteyko Breathing clinics about how to take control naturally. This approach is simple to understand, and can be incorporated easily into your way of life. It does require commitment, but the same goes for anything worthwhile. It

can be taught to children over 4 years of age and all adults with different severities of asthma and COPD.

The expected improvement is 50% less coughing, wheezing and breathlessness within 2 weeks. Sleep disordered breathing including insomnia, snoring and obstructive sleep apnoea will also significantly improve during this time.

There is no magic or potions. It is based on normal physiology, makes a lot of sense and uncovers the link between your breathing and your asthma.

Furthermore, 6 independent trials in the Western world and the results from hundreds of thousands of asthmatics worldwide have validated the Buteyko Method.

At this point you might ask; if it is so good why is it not better known?

There is no straight answer to this. Suffice to say most asthma research in the Western world is conducted by pharmaceutical companies. It is not in the interest of a Pharmaceutical company to research a successful non-drug method like Buteyko.

Chapter 1

What Causes Asthma?

Free video of this section is available from
www.ButeykoDVD.com

"Noisy and heavy" breathing of an asthmatic had always been considered an outcome of the disease. Nobody could even suspect that "heavy breathing" was the cause of bronchial asthma, and increased volume of breathing could provoke the appearance of the symptoms of the disease".

K P Buteyko MD

If you ask your doctor what causes asthma, the answer is “I don’t know”.

What is known is that asthma is more prevalent in affluent countries. (1-4)

It is generally thought that this is due to the hygiene hypothesis of lower exposure to infection during childhood, which results from improved living standards. However, “Challenging this hypothesis, there is growing evidence that in many affluent countries the prevalence is higher among those in low socio-economic status. (5-14) These socio-economic differentials in asthma support a role of environmental factors in the development of asthma.”¹⁵

So what are the environmental factors and how do they cause asthma?

As we become wealthier, our lifestyles change and this has a significant affect on the way that we breathe. With modern living we eat more processed foods, overeat, do less physical exercise, experience more stress and have higher temperatures in the home. Jobs in the modern economy tend to be service-based. As a result they entail very little physical activity and many hours of talking. In addition we are subjected to the unhealthy belief that prevails in gyms, sports class, stress counselling and even western Yoga about the benefits of big breathing.

The modern western lifestyle has quite a profound influence on our breathing; IT INCREASES IT.

Throughout this book, I will use different terms such as heavy breathing, overbreathing, chronic hyperventilating, big breathing. They all mean the same thing and are the crux to explaining the cause of asthma, rhinitis and snoring.

So what is overbreathing or chronically hyperventilating?

If I told you that you were overeating, you would understand what I mean. Overeating is eating an amount of food greater than that which our body requires.

Likewise, overbreathing means breathing a volume of air greater than that which we require. You might say that you don't over breathe; but for most people it is hidden.

Listed below is a number of characteristics which are typical of people attending my clinics. How many apply to you?

- Breathing through the mouth
- Hearing breathing during rest
- Regular sighs
- Regular sniffing
- Irregular breathing
- Holding of breath (apnoea)
- Taking large breaths prior to talking
- Yawning with big breaths
- Upper chest movement
- Lot of visible movement
- Effortful breathing
- Heavy breathing at night

Normal Breathing Volume:

The number of breaths per minute during normal breathing is about 10 to 12. Each breath is approximately 500 ml. This provides a healthy volume as described in any University Medical textbook of 5 to 6 litres of air per minute.

Typical Asthmatic Breathing Volume:

The number of breaths per minute of a typical asthmatic is about 15-20. Each breath tends to be larger than normal and can vary from 700ml to 1 litre. This provides a volume of 10 to 15 litres of air per minute. A number of trials found that the average minute volume for asthmatics was 14.1 litres (Bowler 1998), other researchers showed a volume of 15 litres (Johnson et al 1995) and 12 litres (McFadden & Lyons 1968). (16-18)

This heavy breathing does not just happen during a symptomatic period. It is chronic meaning that it takes place every minute, every hour, every day.

People with asthma, COPD and other respiratory complaints breathe two to three times more than required. In food terms, this is the equivalent of eating ten meals per day.

We can live without food for a number of weeks and without water for a number of days. We can only live without air for just a few minutes. Surely air, which is so vital to sustaining life, must meet certain parameters?

Why do we overbreathe?

There are many reasons why we overbreathe and not all of them apply to each individual. The following seven factors are more prevalent in countries of increasing modernisation and affluence, and this helps explain why asthma and rhinitis are so prevalent.

- 1) **Diet-** Overeating increases breathing volume due to the additional work that is required by the body to process and digest the extra food. Secondly, processed foods are generally acidic. The body strives to maintain the correct pH of the blood and increases breathing in order to remove carbon dioxide.

2) During **speaking**, large breaths of air are inhaled between each sentence. People who work in sales, call answering and teaching will be very aware of how tired and chesty they can be following a number of days talking.

3) **Stress** activates the fight or flight response. We react the same way to a modern day stress as we did to meeting a predatory animal thousands of years ago. When confronted by a wild animal, we had the option of fighting it or running away as fast as possible. In this situation, our breathing increases to prepare us for physical activity.

4) When we **move our muscles**, we generate greater amounts of CO₂. Nowadays, lack of exercise results in lower production of CO₂, and therefore larger breathing volume. Fifty years ago, it is estimated that we performed four hours of physical exercise each day. Today, many people are lucky if they have half an hour of exercise daily.

5) The **belief** that it is good to take big breaths. Stress counselors, gym instructors, coaches, and media personnel who are misinformed about correct breathing volume often encourage the practice of taking a big breath to allow more oxygen into the body. The confusion may lie in the belief that a deep breath is a big breath. A deep breath is what a baby takes and this can be observed by the movements of the tummy. A big breath is often taken through the mouth and generally involves upper chest movement. They are entirely different.

6) **Asthma symptoms**. As airways constrict, we feel suffocated. As a result our breathing increases to try and remove this feeling. However, this increase of breathing volume further feeds our symptoms causing greater constriction and thus a vicious circle is maintained. Later on, I will show you a very gentle exercise to stop this cycle.

7) **Higher temperatures** within the home increase breathing. Another factor is because we are so well clothed; we are less able to regulate body temperature through the skin. This encourages us to revert to the primitive way of heavier breathing to regulate body temperature.

Overbreathing and genetic predisposition;

It can be argued that the same percentage of the population carries the asthma gene today as did years ago. After all, we evolve over thousands of years. While asthma has been around for a long time with first reports dating back to the Ancient Egyptians, it only affected a small percentage of the population until the second half of the twentieth century. For example, the incidence of self reported asthma increased in the US by 74% between 1980 and 1996.¹⁹

Modern living has resulted in a profound change to our breathing. The affect that overbreathing has on the individual depends on genetic predisposition.

If you carry the “asthma gene” and you overbreathe, you will develop asthma. On the other hand, if you carry the “asthma gene” but don’t have the habit of overbreathing, you will not develop asthma.

Lastly, when you correct your overbreathing,

**ASTHMA
REVERSES**

**First we form habits,
then they form us.
Conquer your bad
habits, or they'll
eventually conquer
you.**

Dr. Rob Gilbert

Just a Habit

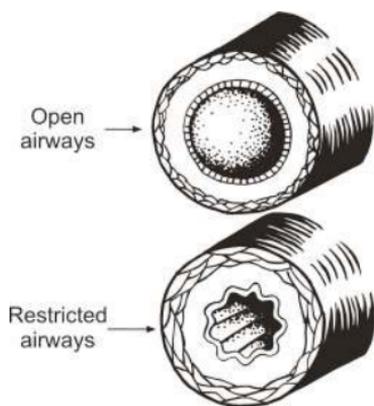
The good news is that overbreathing is just a habit. The part of your brain (central chemoreceptor) that regulates the amount of air you breathe becomes accustomed to breathing too much.

In a paper entitled Hyperventilation Syndrome and Asthma, Dr Stephen Demeter states “prolonged hyperventilation (for more than 24 hours) seems to sensitize the brain, leading to a more prolonged hyperventilation.”²⁰ Hyperventilation becomes habitual or long term, so even when the primary cause is removed, the behaviour is maintained.

With the various exercises outlined in this book, I will teach you how to bring your breathing volume down to more normal amounts, thereby reversing your asthma & snoring. In other words, I will teach you to breathe less.

How does overbreathing cause asthma?

Your airways narrow due to a combination of different factors. The most prevalent is inflammation, which is swelling of the inner wall of your airways.



Airways narrowing

Another is constriction by the smooth muscle that surrounds your airways and a third is increased secretion of mucus by goblet cells.

An asthma attack is used to describe a period of breathing difficulty. An attack can range from a few coughs or a mild wheeze to a life-threatening experience.

There are **different theories** as to why overbreathing causes airways to narrow. One is that airways cool and/or dehydrate from having to condition such a large volume of air. (21-34)

A paper by Davis and Freed published in the European Respiratory Journal concluded, *“repeated dry air challenge in dogs in vivo causes persistent airway obstruction and inflammation not unlike that found in human asthma.”* (33)

Professor Buteyko and others point to the loss of Carbon Dioxide (CO₂). (35-39)

In a paper entitled The Mechanism Of Bronchoconstriction Due To Hypocapnia In Man, Sterling writes, *“hypocapnia (loss of Carbon Dioxide) due to voluntary hyperventilation in man causes increased resistance to airflow”*. Furthermore, when subjects inhaled an air mixture containing 5% carbon dioxide *“bronchoconstriction was prevented, indicating that it had been due to hypocapnia, not to mechanical factors associated with hyperventilation”*⁴¹

Why is Carbon Dioxide so important?

Carbon Dioxide (CO₂) is generated as an end product from the oxidising of the fats and carbohydrates you eat. The CO₂ is carried by your veins to your lungs, where the excess is exhaled. Breathing a correct volume results in the required amount of CO₂ being retained in your lungs. When you overbreathe, too much CO₂ is exhaled. The human body requires a certain amount of it for normal functioning.

“Carbon Dioxide is, in fact, a more fundamental component of living matter than is Oxygen.” Yandell Henderson cited in Normal Breathing- The Key to Vital health by Dr. Artour Rakhimov. ⁴⁰

Carbon Dioxide is not just a waste gas. It is necessary for a number of vital bodily functions including the following;

Transportation of Oxygen

Oxygen is relatively insoluble in blood, so approximately 98% of the gas is carried by haemoglobin molecules. The release of oxygen from haemoglobin is dependent on the quantity of carbon dioxide in your alveoli/arterial blood. If the carbon dioxide is not at the required level of 5%, the oxygen “sticks” to haemoglobin and so is not released to tissues and organs.

This bond was discovered in 1904 by Bohr and is known as the Bohr Effect.

During normal conditions 75% of your intake of oxygen is exhaled while breathing a healthy volume of 4 - 6 litres per minute. Even during intense exercise, it is estimated that 25% of our intake of oxygen is exhaled. **Breathing a volume greater than normal does not improve the amount of oxygen in your blood, as it is already 97 - 98% saturated.** Instead it lowers CO₂ levels, firstly in your lungs, then in your blood, tissues and cells and this reduces the delivery of oxygen from the haemoglobin within your red blood cells. The greater the amount of air taken into your body, the less oxygen is delivered.

To oxygenate tissues and organs, modern man needs to breathe less not more.

Dilation of blood vessels and airways

Carbon dioxide relaxes smooth muscle which surrounds airways, arteries and capillaries.

For example, each 1mmHg drop (norm is 40mmHg) of arterial CO₂ reduces blood flow to the brain by 2%.⁴² In other words, oxygenation of your brain significantly decreases when you breathe heavily. It is no coincidence that symptoms such as fatigue, brain fog, anxiety and poor concentration etc. are common among asthmatics as chronic overbreathing is contributing to them all.

For those genetically predisposed to asthma, the loss of CO₂ from the lungs causes the airways to constrict. The heavier you breathe, the more you feed your asthma and other hyperventilation related problems. The calmer and quieter you breathe, the more your blood vessels and airways open.

Overbreathing increases allergic reactions.

Histamine levels increase during prolonged overbreathing. (43-44) Histamine is a substance secreted by mast cells during exposure to an allergen. This substance creates swelling (edema), local inflammation and constriction of the smaller airways (bronchiole). This is especially relevant to people with hay fever (rhinitis) and asthma.

How many of the following symptoms of hyperventilation do you have?

- **Respiratory system:** wheezing, breathlessness, coughing, chest tightness, frequent yawning, snoring and sleep apnoea.
- **Nervous system:** light-headed feeling, poor concentration, sweating, dizziness, vertigo, tingling of hands and feet, faintness, trembling and headache.

- **Heart:** a racing heartbeat, pain in the chest region, and a skipping or irregular heartbeat.
- **Mind:** some degrees of anxiety, tension, depression, apprehension and stress.

Other general symptoms include mouth dryness, fatigue, bad dreams, nightmares, dry itchy skin, sweaty palms, cramping, spasm, increased urination such as bed wetting or regular visits to the bathroom during the night, diarrhea, constipation, general weakness and chronic exhaustion.

Cardiologist Claude Lum comments that; “Hyperventilation presents a collection of bizarre and often apparently unrelated symptoms, which may affect any part of the body, and any organ or any system.”⁴⁵

In the late Professor Buteyko’s words “Exhaling carbon dioxide from the organism brings about spasms in bronchi, vessels and intestines etc. This reduces oxygen supply leading to oxygen deficiency making one breathe heavier, thus completing the vicious circle.”

Practical examples of overbreathing affecting asthma

Exercise causes airway narrowing for an estimated 70-90% of asthmatics.⁴⁶ In fact, I have yet to see a moderate to severe asthmatic who is not affected by physical exercise. Breathing increases as soon as you commence physical exercise. The heavier your breathing is relative to your metabolic requirements, the greater the degree of airway narrowing.

The second example of overbreathing causing asthma within a few minutes is laughter. We all know a friend or relative who gets into a fit of coughing or wheezing from having a good hearty laugh. As one starts to laugh, large breaths are drawn through the mouth. For some people, 30 seconds of laughter is enough to produce symptoms.

A report published by the American Thoracic Society in May 2005 concluded that laughter causes symptoms among 57% of asthmatics.⁴⁷

In the same report asthma expert Dr. Garay commented, *"Nobody knows how laughter brings on asthma, but it might involve hyperventilation."*

So the question to ask is; if you can take yourself into symptoms from a few minutes of laughter or exercise, does it make sense that if your breathing is 2 - 3 times more than required at all times, then it too will cause symptoms?

Why is swimming beneficial?

For years, medical doctors have been telling their asthma patients that swimming was good for them even though, they may not have exactly known why. The answer is simple; during swimming, your face is under water and this reduces your air intake. Although, you may take a breath in through your mouth every few strokes, your breathing volume is a lot less than if you were running or doing other exercise.

"In most land based forms of exercise, patterns of breathing are not constrained, ventilation increases proportionately throughout exercise, and end tidal CO₂ tensions are either normal or low. Therefore there is no hypercapnic stimulus for bronchodilation and asthmatics have no protection..... Because end tidal CO₂ tensions have not been measured in asthmatics, the potentially protective property of (higher CO₂) may have been overlooked".⁴⁸

As you exercise, CO₂ is produced from metabolic activity. This, combined with the reduced breathing volume from swimming, increases CO₂ levels and this in turn dilates your airways. It is unfortunate that asthmatic swimmers are not aware of this and often revert to heavy breathing through the mouth as soon as they leave the water.

One needs to eat less, breathe less, sleep less and physically work harder to the sweat of one's brow because this is good. This is a fundamental change, this is true restructuring. This is what we need to do these days.

Professor Konstantin Buteyko

Chapter 2:

Yearn To Breathe Free

Free video of this section is available from
www.ButeykoDVD.com

"The perfect man breathes as if he does not breathe"
Sixth century B.C. philosopher
Lao Tzu

My objective is to strip away unnecessary text and provide just what you need to make progress. All breathing exercises will be accompanied by a line diagram. To interpret each diagram, it is essential to understand the following;

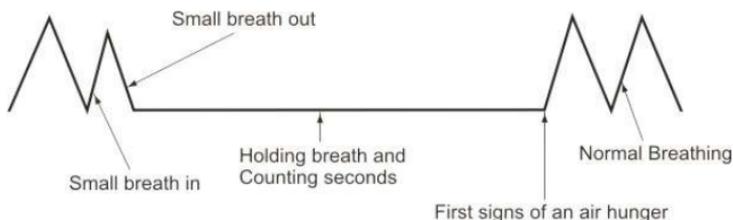


How to interpret breathing instructions

All breathing exercises and the Control Pause - which involves breath holding - are performed after an exhalation. Holding the breath after an exhalation provides greater consistency and comparability as a measurement, involves less stress on the lungs and enables a higher concentration of CO₂ which will relax the airways.

Measure Breathing Volume – Your Control Pause

To measure the extent of your breathing volume, a very simple breath hold test called the Control Pause (CP) is used. The Control Pause will provide feedback on your symptoms and, more importantly, your progress. Your CP measures the length of time that you can comfortably hold your breath.



Measuring the Control Pause (a)

For this you will need a watch or clock with a second hand.

1. Take a small silent breath in and a small silent breath out.
2. Hold your nose with your fingers to prevent air entering into your lungs.
3. Count how many seconds until you feel the first definite desire to breathe. You may also feel your diaphragm involuntarily “jerking” or pushing downwards at about the same time.
4. Release your nose and breathe in through it.

Your inhalation after the breath hold should be no larger than your breath prior to taking the measurement. It should be calm and quiet. If your breath in is disrupted, then you have held for too long and so have an inaccurate CP.



Important things to be aware of before we start:

1. The breath is taken after gently exhaling.
2. The breath is held until the first definite urges only. It is not a measurement of the maximum length of time that you can hold your breath.
3. The CP is a measurement of your breath hold time

only. It is not an exercise to correct your breathing. Remember that the CP is holding your breath only until the first urges. If you had to take a big breath at the end of the breath hold, then you held it for too long. The most accurate CP is taken first thing in the morning after waking up.

What does the CP (comfortable breath hold time) mean?

If your CP is less than 10 seconds then;

- Asthma and sleep related symptoms are severe. Breathlessness, wheezing and/or coughing will be frequently present throughout the day and at night. Relative breathing volume as determined by such a low breath hold is very high.

If your CP is less than 20 seconds then;

- Symptoms such as coughing, wheezing, breathlessness, exercise-induced asthma, colds, chest infections, snoring and fatigue are present. The lower your breath hold, the greater your symptoms.

If your CP is between 20 and 40 seconds then;

- Main symptoms will have gone, but you may develop symptoms if exposed to a trigger. The affect of a trigger is proportionate to your CP. As an asthmatic you will feel quite well and your breathing will be a lot calmer. In addition, you should not have any nighttime episodes or exercise-induced asthma and your colds and chest infections will have decreased significantly.

If your CP is greater than 40 seconds then;

- No symptoms are present. You will feel very well with good energy, clarity and breathing. To ensure a permanent physiological change, it is necessary to attain a

morning CP of 40 seconds for 6 months.

The lower your breath hold, the greater your breathing volume and the greater your asthma symptoms.

For example, a very severe asthmatic will have a Control Pause of less than 10 seconds. Their breathing will be very noticeable both at rest and while participating in physical exercise.

An asthmatic with a morning CP of 40 seconds will have no symptoms. Their breathing will be unnoticeable during rest. Physical exercise will produce a lot less ventilation and they should not experience exercise-induced asthma at all.

Essential rules to make progress:

- You will feel better each time your CP increases by 5 seconds.
- If your CP does not change, you will not feel better.
- Your CP should increase by 3 - 4 seconds during the first couple of weeks. After that progress will continue albeit at a slower pace. Physical exercise is necessary to increase the CP above 20 seconds.
- The most accurate CP is taken first thing after waking. You cannot influence your breathing during sleep. As a result, this CP is the most accurate as it is based on your breathing volume as set by the respiratory centre.
- Your CP as taken throughout the day will provide feedback of your asthma at that time.
- Your goal is to have morning CP of 40 seconds for 6 months.

Three steps to increasing your CP;

STEP 1

Stop Big Breathing

- a. Close Your Mouth
- b. Stop Sighing – (swallow or hold your breath)
- c. Apply gentle calm breathing
- d. Never hear your breathing during rest
- e. Yawn with your mouth closed

STEP 2

Practice reduced breathing

Use the 6 simple exercises in Chapter 3 - each with its own purpose.

STEP 3

Take physical exercise with correct breathing.

(Physical exercise is necessary to increase the CP from 20 to 40 seconds. More details further on)

STEP 1 is the foundation. Make the change to nasal breathing on a permanent basis, suppress your sighs, be aware of your breathing and ensure that it is quiet during the day. A regular sigh is enough to maintain chronic hyperventilation; therefore it is very important to stop sighing by swallowing or holding your breath. Unless your foundation is strong, your progress will not be good. You will make progress by keeping your mouth closed but this will not be enough by itself. It is also necessary to reverse the overbreathing habit that has developed over the years.

To increase your CP from 10 - 20 seconds, **STEPS 1 and 2** are necessary.

To increase your CP from 20 – 40 seconds, **STEP 3** is necessary.

The following is an example of the change to breathing volume as the CP increases



Low CP - 10 seconds

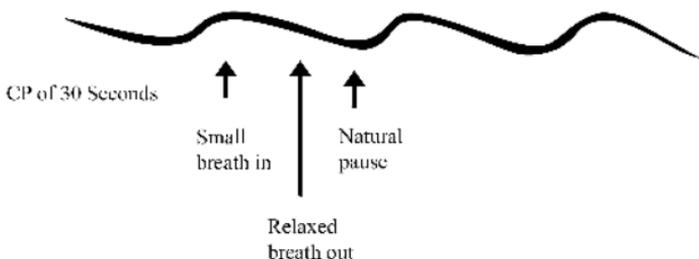
CP of 10 seconds; breathing is noisy, loud, irregular, large, heavy, erratic, and effortful.



CP of 20 Seconds

Natural pause of one second

CP of 20 seconds; breathing is heavy but calmer. A natural pause occurs between each breath.



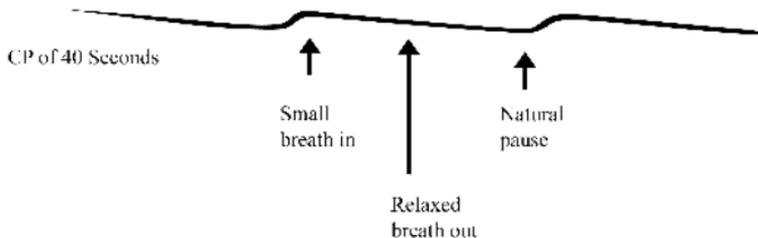
CP of 30 Seconds

Small
breath in

Natural
pause

Relaxed
breath out

CP of 30 seconds; breathing is calm and quiet. The natural pause gets larger.



CP of 40 seconds; breathing is very quiet, calm and unnoticeable.

Compare our lifestyles

Fifty years ago;

- Greater physical activity
- More natural foods
- Less overeating
- Cooler temperatures within the home
- Less public talking
- Less stress- less competitive pressures, a more green environment and nature
- Result: Correct volume breathing - Higher CP - asthma uncommon

Today;

- Little physical activity
- More processed foods
- Habitual overeating
- Higher temperatures of homes and warmer clothes
- Talking forms a large part of our working life
- More stress - artificial and noisy concrete environment with information overload
- Result: Big volume breathing - Lower CP – asthma very common



"The end of the human race will be that it will eventually die of civilization." Ralph Waldo Emerson

Chapter 3

The Buteyko Breathing Approach

“If A equals success, then the formula is:

A = X + Y + Z,

X is work.

Y is play.

Z is keep your mouth shut”.

Albert Einstein

My experience from teaching thousands of asthma sufferers enabled me to develop a very simple approach to overcome asthma. How the exercises are presented and described is unique to the Buteyko Breathing clinics. This approach is easy to apply, remember and incorporate into your way of life.

Ultimately all exercises are designed to correct your breathing and reverse chronic hyperventilation. The goal is for breathing to become quiet, gentle, calm and regular as characterized by a high CP.

Breathing exercises are the tools to get you there. All breathing exercises – which will be outlined in detail later in this chapter - involve one thing and that is to breathe less for periods of time in order to reverse the bad habit of overbreathing.

You are on an air diet.

When you practice any of the breathing exercises, it is necessary that you feel a **hunger for air**. The extent of the need for air depends on what exercise you are doing. This is good feedback and is essential to correct the habit of overbreathing. Feeling a need for air is due to an increase of CO₂ in your blood. Your respiratory centre is reacting to the increased CO₂ by stimulating your breathing to keep it at the lower level. After 9 – 12 minutes of feeling this air hunger, the increased CO₂ penetrates your blood-brain barrier and resets the respiratory centre a little. This will be indicated by a higher CP as taken a few minutes after completing 15 - 20 minutes of breathing exercises.

Imagine that you are eating ten meals each day. If you attended a diet class and were told to reduce your meal consumption to the normal amount of two to three meals each day, you would feel hungry for food because the amount that you would be eating is less than what your body has become accustomed to.

However within a few days, this feeling will disappear and your overall health will improve. While correcting your breathing, you purposely reduce your breathing and feel the air shortage to make progress.

The feeling of the need for air is not due to your body being deprived of oxygen, but arises due to an accumulation of carbon dioxide in the blood.

There is just one simple rule and without it, you will make little progress;

The only way that you know that you are reducing your breathing is when you feel a need for air.

A need for air is the same as a want for air. Some people describe it as feeling **suffocated** or **smothered**. The experience of breathlessness is similar to partaking in physical activity.

To experience and understand the need for air, perform the following:

- Take a small breath in.
- Gently breathe out.
- Hold your nose and wait until you feel a distinct but non-stressful need to breathe in.

Guidelines:-

While the breathing exercises in this book are suitable and very beneficial for most people, there are a number of conditions as outlined below where they are not suitable. If you are unsure, do not attempt any of the breathing exercises.

Category 1- Do not attempt any of the breathing exercises if you have or are undergoing any of the following;

- Current Cancer treatments
- Type 1 Diabetes
- Epilepsy
- Schizophrenia
- Unsatisfactory blood pressure levels
- Chest pains or pain in the heart region
- Sickle cell anemia
- Arterial aneurysm
- Any heart problems in the past six months
- Uncontrolled hyperthyroidism
- A known brain tumour or kidney disease.

Category 2- People who should have very gentle air shortage only;

- Severe asthmatics and people with emphysema and COPD
- Type 2 Diabetics
- Pregnant (Do not apply during first trimester)
- Anxiety / depression
- Migraine Sufferers

Category 2 should never have an air shortage greater than what you would experience during a gentle walk. **To achieve this, practice Exercises 2 and 6 ONLY.**

An even better option would be to find an experienced practitioner to help. (A list of practitioners can be found at ButeykoClinic.com) If you are predisposed to anxiety or

migraines, it is better to increase the CP gently. If your CP increases too quickly, you may experience an aggravation of your symptoms for a short time. This is a cleansing reaction and your CP will increase when it passes. To increase the CP slowly, the air shortage should be tolerable.

Cleansing reactions

About two thirds of people who undergo reduced breathing will experience a detoxing or cleansing reaction. Better volume breathing improves blood flow and the oxygenation of all tissues and organs. Cleansing reactions take place when the CP moves through 10, 20 and 40 seconds. It can also occur when the CP is 2, 4 and 6 times the initial value. Generally cleansing reactions are an aggravation of your symptoms, are mild and can last from several hours to several weeks. For most people it lasts just one to two days.

Depending on the person, typical symptoms include;

- increased secretions of mucus from the lungs, head cold with runny nose,
- diarrhoea,
- more frequent visits to the bathroom,
- loss of appetite,
- increased yawning and fatigue,
- insomnia,
- smell from the skin (especially if you have been taking large amounts of oral steroid),
- short term headache,
- increased irritability or anxiety, (if you have anxious tendencies, it is better to increase CP slowly by applying a tolerable air shortage only),
- metallic or coppery taste in the mouth and increased demand for water.

Don't worry; at most you will experience only one or two symptoms. If you do have a strong cleansing, your body has

undergone a major physiological change and you will feel so much better from it.

An integral part of the cleansing is reduced appetite for food, therefore only eat when hungry.

To help reduce the intensity and duration of cleansing reactions, drink warm water regularly throughout the day and continue with reduced breathing by relaxation.

(EXERCISE 2 and 6)

During the cleansing, your pulse will increase and Control Pause will quickly reduce. Both will normalise again when the cleansing reaction has passed and you will be feeling so much better.

On a positive note, everyone will experience signs of health improvement including: far less wheezing, coughing and breathlessness, increased calmness and concentration; better sleep and more energy, and reduced appetite and cravings for coffee, chocolate and other foodstuffs.

Making the change from mouth to nasal breathing

All new born babies - and the vast majority of animals - nasal breathe. Dogs pant through their mouths to regulate their body temperature but for the most part their mouth is closed. Many humans sleep, walk, rest and work with their mouth open. It seems that their nose is nothing more than an ornament.

Your nose plays an important role in conditioning incoming air before it enters your lungs. My experience is that by making the switch from mouth to nasal breathing on a permanent basis, you will help your asthma by about 30%. I would also like to add that;

Unless you make the switch to nasal breathing, you will never solve your asthma.

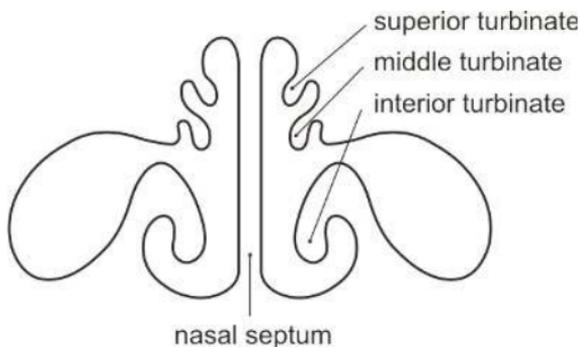


YOUR NOSE:

Filters: Your nose is lined with a mucus membrane.

*"It has been estimated that three quarters of the bacteria entering the nose are deposited on the mucus blanket and are thus eliminated. In fact, the mucus has its own antibacterial action".*¹

Your nose also filters larger particles, which are common triggers for asthma. (It often dismays me that parents of asthmatic children spend considerable sums of money on changing carpets, curtains and bedding and installing high-tech vacuum systems to reduce the inhalation of dust mites, but seldom is the child encouraged to breathe through their nose.)



Frontal view of interior of the nose

Warms: Your nose brings air to a better temperature and therefore reduces the likelihood of airway cooling.

*"Air swirling through turbinates is warmed rapidly: entering the nose at 6 degrees (43 degrees F) for instance will be warmed to 30 degrees (86 degrees F) by the time it reaches the back of the nose, and to body temperature as it passes the trachea."*²

Moistens: Your nose contains a moist mucous blanket that slightly moistens air thereby reducing the dehydration affect.

Regulates volume: Your nostrils are a smaller entry than your mouth. This in turn creates resistance and results in a more quiet, calm and better breathing volume.

Mouth breathing results in a dry mouth, which creates an ideal environment to harbour bacteria. This contributes to gum disease and teeth decay. In addition, all children who habitually breathe through their mouths have a far greater likelihood of **developing crooked teeth**.³

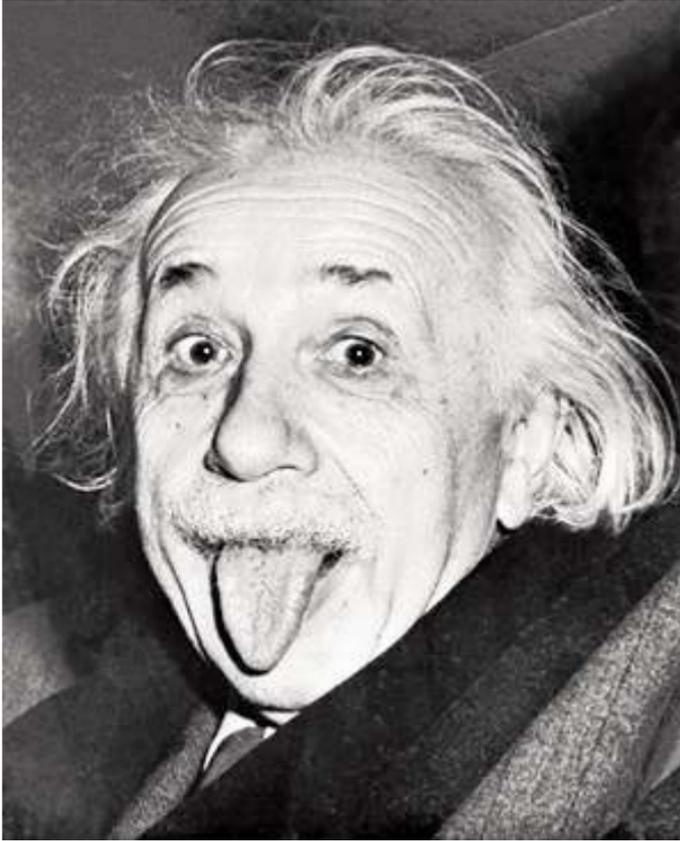
“Over the years I have noticed an increasing tendency for children to show evidence of chronic or habitual mouth breathing. This has a negative effect not only on the development of the jaws, the shape of the developing cranium and the occlusion, but also on the general health of the child. There is plenty of evidence in the literature that mouth-breathing has an adverse effect on the growth and development of the face and jaws. All children who are habitual mouth-breathers will have a malocclusion.”³

(A malocclusion is a misalignment of teeth and/or incorrect relation between the teeth of the two dental arches.)

Mouth breathing looks dreadful. *“Nasal breathing in public is considered to be more socially acceptable and attractive than mouth breathing”.*⁴

To confirm this, take a look at yourself in the mirror. If you wish to look attractive close your mouth!!

Rhinitis is very common amongst asthmatics. Symptoms include sneezing, nasal congestion, runny nose, itchy nose, throat, eyes and ears. To date, the vast majority of my patients have been able to make the switch from mouth to nasal breathing. In addition, I have received considerable feedback from patients of their nasal polyps shrinking within a number of months after they make a permanent change to nasal breathing.



“Any man who can drive safely while kissing a pretty girl is simply not giving the kiss the attention it deserves”

Albert Einstein

Carefully pay attention to all exercises!

BREATHING EXERCISES as taught at Buteyko Breathing Clinics

EXERCISE 1: How to unblock your nose, shift mucus or remove constipation.

(Air shortage - Medium to large)

EXERCISE 2a and 2b: How to reduce your breathing.

(Air shortage - Tolerable)

EXERCISE 3: Walking with your mouth closed to create a need for air.

(Air shortage - Tolerable)

EXERCISE 4: Walking with breath holds.

(Air shortage - Medium to large)

EXERCISE 5: STEPS (children and healthy adults)

(Air shortage - Medium to large)

EXERCISE 6: How to stop a wheezing and coughing attack.
(Suitable if you have symptoms, a low CP, are senior, have different illness)

(Air shortage - Gentle)

EXERCISE 1

HOW TO UNBLOCK YOUR NOSE

(Free video of this section is available from www.ButeykoDVD.com)

If your CP is less than 10 seconds, or you have any of the conditions as listed on page 27, then refrain from holding your breath too long. Instead practice EXERCISE 6 to help unblock your nose.

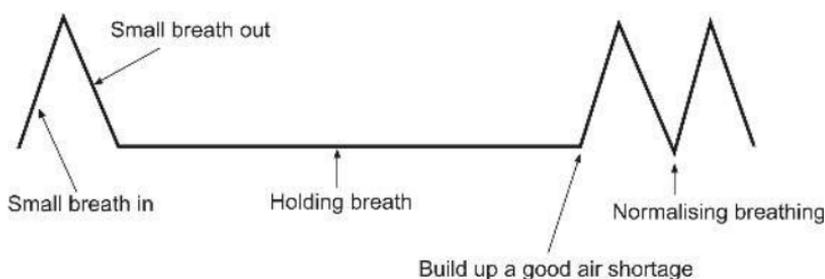
Your nose gets blocked due to breathing too much. Blood vessels inflame and greater amounts of mucus are secreted thus making breathing through it more difficult.

A vicious circle ensues because, as your nose gets blocked, you switch to mouth breathing. This involves an even greater loss of CO₂ resulting in even more congestion.



This Exercise is very effective for decongesting your nose in just a few minutes;

- Sit up straight.
- Take a small breath in through your nose, if possible, and a small breath out. If your nose is quite blocked, take a tiny breath in through the corner of your mouth.
- Pinch your nose with your fingers and hold your breath. Keep your mouth closed.
- Gently nod your head or sway your body until you feel that you cannot hold your breath any longer. (Hold your nose until you feel a strong desire to breathe.)
- When you need to breathe in, let go of your nose and breathe gently through it, in and out, with your mouth closed.
- Calm your breathing as soon as possible.



How to unblock the nose naturally

If your nose does not become totally free, wait about 30 seconds until your breathing has recovered before performing this exercise again. You will need to do this a number of times before your nose is completely unblocked.

After doing this exercise many times your nose will be unblocked. You might also feel warm and more alert due to the dilatation of blood vessels. This exercise is also useful for shifting mucus from the airways and for removing constipation. To remove constipation, perform this breath hold exercise many times while sitting on the loo!

If you have a low CP, it indicates that you are big breathing and so your nose will become blocked again. It is only when the morning CP is over 20 seconds that your nose will stay clear.

Perform this exercise each time that your nose becomes blocked. Even if you have a cold, make sure to breathe through your nose. You might think that you cannot clear your nose when you have a heavy cold, but you can. If you do have a head cold, close your mouth and reduce your breathing throughout the day. (Explained later) This will both shorten the duration of your cold and greatly reduce the likelihood of it going to your chest. I have observed hundreds of asthmatics dramatically reduce head colds and chest infections after they learned to nasal breathe and correct their breathing volume.

When the switch is first made from mouth to nasal breathing, the volume of air being inhaled will reduce. Your mouth is a bigger opening and thus you can breathe far more air through it. If you have had your mouth open for many years, it is certain that the body has become adjusted to this heavier breathing.

Your nostrils are a smaller space and thus will create more resistance than mouth breathing. As a result you may feel that you are not getting enough air. This will be for a short time only. In a few days, your respiratory centre will have become accustomed to the more correct volume.

Whatever you do, ensure that you keep your mouth closed. Your body may begin to play tricks and convince you to breathe more by inducing yawning, sighing, regular sniffing or the odd mouth breath. Try not to increase breathing at this point.

When the need to big breathe arises, for example during a sigh, swallow immediately. If the need to yawn also occurs, avoid taking the big breath that accompanies a yawn. Instead stifle the yawn by keeping the mouth closed, or by swallowing.

It takes just a few days for a habitual mouth breather to change to permanent nasal breathing. Increased observation of your breathing and practicing to breathe less are important elements to make this change.

Nasal breathing should be enshrined at all times and during every activity. Remember that when you mouth breathe for periods of time, you are feeding your asthma symptoms and reducing oxygenation of tissues and organs!

After the change to nasal breathing has been made, it will become uncomfortable to mouth breathe because the effects of cold dry air entering through the mouth will be felt. Often people begin to wonder how on earth they managed to go through life with a permanent, and very uncomfortable, blocked nose; a condition which is usually addressed by the use of nasal sprays, decongestants or even an operation.

Saline Solution for Rhinitis.

The following comes highly recommended for people with rhinitis and sinusitis. Use in addition to EXERCISE 1 - the nose unblocking exercise.

- Boil a glass of water.
- Add a quarter teaspoon of quality sea salt.
- Add cold water or allow it to cool until it is lukewarm.
- Pour some of the salt water into the palm of your hand and snort it up one nostril.
- Wait a moment, then repeat with the other nostril.
- Continue to snort the solution into each nostril.

When you are finished, dry your nose with a little tissue. Your nose will be internally cleaner and less congested. Bad breath, which often originates from postnasal drip, will reduce when the inside of the nose is kept clean.

The usual approach of blowing your nose repeatedly involves big volume breathing and can damage the internal lining of your nose and contribute to inflammation. Using the breathing exercises along with the saline solution is far more effective.