

# Regain the Power of Breath

## IS DEEP BREATHING AS BENEFICIAL FOR YOUR HEALTH AS YOU ARE LED TO BELIEVE? FOR 90% OF THE POPULATION, IT SEEMS NOT.

### “TAKE A DEEP BREATH.” HOW OFTEN ARE YOU URGED TO DO JUST THAT,

by teachers, sports coaches, even doctors? It is now widely documented that any form of deep respiration can do nothing but harm, yet the misconceptions continue, firstly that deep breathing increases oxygenation and secondly that it is relaxing and therefore healthy. To see the flaws in these two assumptions you must first of all look at what occurs when you take a deep breath. In the alveoli (gas pockets) of the lung, the human organism regulates an atmosphere completely different to the gaseous composition of the air we breathe. Here the body requires definite concentrations of oxygen and carbon dioxide. Deep breathing disturbs this 'internal atmosphere' by causing a 'blowing off', or excessive loss, of carbon dioxide from the body.

Carbon dioxide plays a vital role in the body's oxygenation process through its role of facilitating the release of oxygen from the red blood cells and into the tissues. Therefore lowering of the body's carbon dioxide level equates directly to less oxygen reaching the tissues. Simply put, deep breathing results in less oxygen reaching the organs of the body, including the brain.

Oxygen depletion of the brain gives a sensation of light-headedness which is often interpreted as relaxing. In numerous studies, hyperventilation has been shown to rapidly (within the first 30 seconds) slow down the functioning ability of the brain. It is also shown to reduce blood flow to the brain through vasoconstriction (cell spasm). These factors are also linked to this 'relaxing' effect. Most of us are aware of the schoolyard trick of causing yourself to faint by breathing deeply for an extended period of time - this is only a continuance of this situation.

Carbon dioxide, through its conversion into dissolved carbon dioxide gas, carbonic acid, bicarbonates, carbonates and carbamates, plays many varied roles in our biological processes. Apart from its function as a regulator of the respiratory system, carbon dioxide is also a vital player in the vascular, nervous, hormonal and digestive systems of the human body.

Yet probably carbon dioxide's most important function is (through its conversion to carbonic acid) as the number one buffer (regulator) in our acid-base balance. If our bodies are depleted of this 'acid base' then alkalaemia (over-alkaline pH) develops which is known to impair immune function. Hyperventilation leads to weaker immunity and therefore poor health generally.

### BUTEYKO BREATHING

It is with this understanding that we see the link between deep breathing and disease, correct breathing and health. Currently, in Australia, hundreds of asthmatics and those suffering from the symptoms of hyperventilation have been treated for this disorder by a Russian technique of breathing normalisation. The success of this method has been remarkable. Recent clinical studies have shown that 96 per cent had claimed reduction in their asthmatic symptoms and reliance on reliever medications and a 49% reduction in their preventative medications over a twelve week period.. The method was designed by the world's foremost hyperventilation expert, Russian Professor Konstantin Buteyko. Over forty years of scientific research, Professor Buteyko has shown that incorrect breathing can be the cause of a whole range of problems, which can therefore be treated successfully through what he calls 'breathing reconditioning'. The Buteyko research has shown that any form of over-breathing is detrimental to the health.

The term 'hyperventilation' should be clearly defined. It is not reserved only for the most extreme and visible cases. Hyperventilation simply means an increase in the amount of air we breathe above the normal recommended amount. The significance of Buteyko's discoveries hinges on the diagnosis of what has become known as 'hidden hyperventilation', that is, long term over-breathing that is not clearly visible in the patient. If a patient over-breathing thirty litres a minute can experience severe physical repercussions in the very short term, over-breathing lesser quantities will have equally dire consequences over the long term.

### DIAGNOSING HYPERVENTILATION

The problem for doctors, however, is the difficulty in diagnosis. In the majority of cases the hyperventilation is not apparent and even the patients themselves are mostly unaware of the problem. Ironically the patient may even indicate to the doctor that they feel as though they are not getting enough air. This sensation of breathlessness and an inability to take a satisfying breath are some of the most common symptoms of 'hyperventilation' (see Symptoms Of Hyperventilation). It appears also that, in the western world, the ability of doctors to assess their patients' breathing is hampered by the current trend of symptomatic medication.

Professor Buteyko claims that asthma and many other problems are simply symptoms of hyperventilation. Normalise a patient's breathing (alveolar carbon dioxide levels) and the symptoms decrease accordingly. For forty eight years in Russia, they have not seen an exception to this and the Buteyko Method has been government endorsed there since 1983.

*cont.*



### Aaron Lumsdaine's Breath Power - Buteyko Training Services

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*"A method whose time has come - A self generating way of optimising oxygenation to every cell and taking the body from a state of defence & merely existing to truly living by perfecting what you do most - Breathing!"*

Having discussed some of the physiological side effects of hyperventilation, and the resulting "blowing off" of carbon dioxide, an obvious question arises; how does this "deep breathing" develop?

## WHAT CAUSES HYPERVENTILATION?

There are many factors known to increase the breathing. In Professor Buteyko's opinion the most important factor is the propaganda of the usefulness of deep breathing. Babies are often encouraged to breathe deeply after birth by having their arms raised and lowered. Throughout life this continues - in kindergarten's, schools, sports clubs, armies, and even doctors' rooms, deep breathing is encouraged without any scientific basis.

Over-eating, especially animal proteins (chicken, eggs, milk, fish etc) and processed foods, sharply increases the breathing. Animal products increase the breathing more than plant, cooked food more than raw.

Poor fitness and lack of physical work serves to increase the breathing pattern, as does lack of mobility such as bed regimes. Prolonged sleep (especially when lying on the back and/or with the mouth open) encourages hyperventilation. Recommendations for longer periods of sleep seem illogical when you take into account that most incidents of asthma, epilepsy, strokes, myocardial infarction, paralysis, etc. occur during or immediately after sleeping.

Further factors deepening the breath are emotions - either positive or negative - psychological disturbances, stress, stuffy environments, etc.

What about yoga? This question is often posed to me and it is one that deserves an answer. It is true that yoga involves the taking of deep breaths. However after these single deep inspirations, the breath is held for a considerable time. This breath retention causes an increase in the lungs' carbon dioxide content. All the studies on yoga masters (practitioners) that I have viewed showed these practitioners to have very low breathing patterns as reflected by high levels of carbon dioxide in the blood. Yogis also show exceptional levels of health which is generally the reason for these studies in the first place.

Therefore yoga does not involve hyperventilation, but rather a series of breath holding exercises. Meditation and relaxation techniques are also known to lower the breathing and this is probably the physiological link between these techniques and the reported improvements in health experienced by many practising them.

Some people indicate that taking slow, deep breaths during hyperventilation (or anxiety) attacks has helped them overcome these situations more rapidly. In these situations the breathing has obviously become more controlled and therefore less rapid. Less air is actually being taken in, encouraging carbon dioxide levels to normalise.

## SYMPTOMS ASSOCIATED WITH HYPERVENTILATION

1. **NERVOUS SYSTEM:** Light-headedness, dizziness, unsteadiness. poor concentration and memory, loss of consciousness. Numbness, tingling and coldness especially in the hands and fingers and often the face.
2. **RESPIRATORY SYSTEM:** Shortness of breath, tightness in or around the chest, over sensitivity of the airways, excessive sneezing, excessive production of mucus, lung term blocked or running sinus, excessive yawning and sighing.
3. **HEART:** Palpitations (racing heart beat), tachycardia. 'skipped beats'. Pain in the chest region usually described as momentary, sharp twinges, or as more persistent dull aching pressure.
4. **MUSCLES:** Muscular spasm, twitching, muscle stiffness and pain, carpopedal spasm (wrist and foot), generalised tetany.
5. **PSYCHOLOGICAL:** Different degrees of anxiety, tension and apprehension.
6. **GENERAL:** Dryness in the mouth. chronic mouth breathing, difficulty in swallowing (Dysphagia), abdominal bloating, belching and flatulence, easily tired, general weakness, insomnia and chronic exhaustion.

If, after reading this, you suspect that you may be suffering from a 'breathing based disorder' do not attempt to alter your breathing without professional assistance. Many physiological disturbances occur with a change in the breathing pattern and therefore any reconditioning must occur under the close observation of a breathing expert.

## BUTEYKO TRAINING SERVICES

Aaron Lumsdaine has assisted over four thousand people since his involvement with the Buteyko Technique. For over seven years now he has travelled extensively throughout Australia and Overseas teaching people the Benefits of Better Breathing Habits. Aaron regular conducts his renowned five day (2 hours per day) seminars and "weekend workshops" in Perth, Esperance, Adelaide, Sydney, Darwin, Broome, Exmouth, Geraldton, Jakarta, Honolulu, LA, Miami, New York, Toronto, Dublin, Milano, Cairo.

Aaron Lumsdaine, also a founding member of the Buteyko Institute of Breathing & Health Incorporated, is recognised as one of the few Senior Buteyko Practitioners. Aaron and the Practitioners he has trained are dedicated to assisting their clients through this amazing physiological process of Regaining the Power of Breath.....



drug-free solutions & lifestyle strategies

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