

Chronic Hyperventilation & A Proven Solution

Western Epidemic & the Origin of the Fat Folder Syndrome Michael Lingard Oct. 2007

There are over a hundred diseases associated with chronic hyperventilation to a lesser or greater degree. Patients consulting their GP with these conditions are rarely if ever assessed for hyperventilation. Many of these patients are sent for further investigations to specialists who find no significant pathology. The Patient's folder grows fatter.

Hyperventilation may be defined as breathing a greater volume of air than is needed to meet physiological needs.

Why do we breathe? This simple question needs more attention. We are told this process is primarily to take in oxygen and clear waste gases. Generally our focus has been on oxygen supply and our concerns usually revolve around potential or actual oxygen deficiencies that may be life threatening. The medical image of the life saving "oxygen mask" & take a deep breath if stressed! We are all agreed that without oxygen for a very short time we would die & life is unsustainable without it but *we are immersed in a sea of oxygen*, 20% in the air we breathe in and 16% of our expired air is oxygen.

Carbon dioxide for life! What most of us have not recognised is that Carbon Dioxide is no more a "waste gas" than our expired oxygen, that *without carbon dioxide life is unsustainable* on this planet for all living things and significantly, whereas 100 million years ago the atmosphere was rich in carbon dioxide (about 6%), today there is scarcely any, roughly 0.03% which just keeps the planet's vegetation alive.

However as mammals *we produce more carbon dioxide than we need* for our body's biochemistry from our metabolism during digestion and physical activity and therefore do not rely on outside sources like plants. Just as with oxygen, too much will poison, so it is with carbon dioxide and *there is the need to clear the surplus* to our requirements by breathing.

Our breathing is *primarily governed by carbon dioxide levels in the blood* and **not** oxygen levels! Our breathing may be seen as a means of regulating the level of carbon dioxide in our body, and as we are immersed in an oxygen atmosphere the intake of oxygen follows as a 'side effect' of this regulation! There are exceptions when our demand for oxygen increases dramatically with intensive exercise, at these times our breathing may be driven by oxygen need.

Carbon dioxide Receptors. Receptors in the brain respond to the carbon dioxide levels in our blood, increase or decrease our breathing rate accordingly to try to maintain a 5-6% optimum level of carbon dioxide. This is how things *should* be, but for a variety of reasons our receptors can be thrown off course and are in 90% of the Western population!

Fight Flight Syndrome. Perhaps the main reason for the failure of our breathing regulation is tied up with the "fight flight" autonomic response to any stressors. Although this mechanism was a life-saving response during our earlier days of our evolution, today it is usually counter productive and often positively damaging to our health. When triggered by a threat or stressor which leads to immediate increased physical activity such as running or fighting the response is appropriate and healthy, however, in this modern world we still have the triggers but *rately do we react with increased physical activity*, thus the preparation for high physical activity; increased heart rate, increased breathing, increased blood directed to muscles, increased clotting of blood, reduced immune system activity, increased sweating, increased histamine production is inappropriate *when we sit fuming in our cars or at our office desks*.

Repeated episodes like this over time gets the body used to a heightened state of alertness, permanently increased breathing / blood pressure etc. but most important of all they lead to a *resetting of our carbon dioxide receptors to now accept a lowered carbon dioxide level* as the norm.

You are now locked into chronic hyperventilation !

Physiological Effects of hyperventilation:

Hyperventilation

reduces levels of carbon dioxide
encourages mouth breathing

Decreased levels of carbon dioxide

causes smooth muscle to spasm
causes oxyhaemoglobin to hold onto oxygen
causes respiratory alkalosis
leading to metabolic acidosis
causes impaired biochemical synthesis as pH rises
increase histamine production
causes kidneys to dump bicarbonate as attempt to lower pH

Cumulative effects of these processes usually include:

tightening of airways
constriction of blood vessels
Increased blood pressure
muscle cramps tiredness
increased mucus production
up to 50% reduction of oxygen delivery to brain

Diseases either caused by these reactions or aggravated significantly by them:

Allergies Angina Asthma Bronchitis Breathlessness COPD Coughing Depression
Digestion Dental Problems Emphysema Eczema Fatigue Fat Folder Syndrome
Hypertension Hay Fever IBS Insomnia Lung problems Lupus Migraine ME Nervous
disorders Panic Attacks Rhinitis Rashes Sleep Apnoea Snoring Stress Yawning in fact can
you think of a single disease that would not be aggravated by the protean biochemical effects of
chronic hyperventilation?

The Buteyko Method is the most structured, researched & proven way to deal with this problem, but you can help in many ways:

1. Be aware of this epidemic health problem
2. Measure the CP, even a rough measure will identify the problem
3. Make the patient aware of their over breathing.
4. Briefly explain the adverse consequences on their health
5. Advise them to try to return their breathing to normal by following the simple rules below
6. Monitor them on later visits to maintain their awareness & efforts

Five Simple Rules to Help Reduce Chronic Hyperventilation

1. *Always try to nose breathe*, try to avoid mouth breathing.
2. Be aware of how you breathe, *avoid upper chest breathing*.
3. Whenever possible *try to quieten your breathing*, especially when under stress.
4. Try to do *less yawning, sighing, coughing, or taking big breaths* when not needed
5. *Pace yourself when walking or exercising* so you can continue nose breathing

If their condition is closely linked with their hyperventilation, eg. asthma, panic attacks or sleep apnoea, advise them to find a Buteyko Practitioner by visiting <www.buteykokent.co.uk> .

"Eat less, sleep less, breathe less and exercise more." Professor Konstantin Buteyko