

## Yoga and Buteyko

*How well do you breathe? And does it matter?*

Can there be a right or wrong way to breathe? Does *how* we breathe really matter? Probably most of us assume that we breathe well enough.

At the turn of the twentieth century, Austrian physiologists Breyer and Gering discovered that man is the only species on earth which does not breathe correctly.

In the 1950s a Russian medical scientist, Professor K. P. Buteyko, discovered that the occurrence and severity of some of the most common "diseases of civilization" are closely related to the way we breathe.

Professor Buteyko (1923 - 2003) devoted over 40 years of research into respiration, and he found that most of us breathe, not too little, but too much: perhaps 3 to 5 times more than our body's requirements.

People often believe that their breathing is too shallow, but when we breathe from the upper chest, gulping in air through the mouth before each sentence; when our habitual exhalations are short; when we snore, yawn and cough a lot, and awaken in the morning feeling tired with a dry mouth and blocked nose: we are certainly over-breathing.

The tendency to involuntarily and habitually over-breathe is known as chronic hyperventilation, and is extremely common. This 'hidden hyperventilation' is estimated to afflict, in varying degrees, over 80% of all people.

At rest an adult should breathe lightly, superficially, and only through the nose, even at night. A healthy person can perform light exercise and still breathe lightly, while a sick person needs to take big breaths most or all of the time.

Normal breathing is invisible, inaudible and regular, and results in a very specific accumulated gas mixture that our organism requires for good health.

The theory behind Professor Buteyko's discovery is that hyperventilation causes a depletion of carbon dioxide. Low levels of carbon dioxide in the organism cause blood vessels to spasm, and cause oxygen starvation in our vital organs: brain, heart, kidneys, colon etc.

This results in a whole range of "defence mechanisms" that have been misunderstood and labelled as various diseases.

It is a common misunderstanding that carbon dioxide is poisonous to the body. In fact, carbon dioxide is absolutely essential to sustain life. Every living thing needs normal levels of carbon dioxide (not too little; not too much) for healthy functioning.

Normal levels of carbon dioxide are necessary for rational thinking and all mental activities. It is a sedative - the 'tranquilizer of the brain', keeping us cool-headed and sensible. "*The brain, by regulating breathing, controls its own excitability*". *Balestrino & Somjen 1988*

Professor Buteyko found that chronic hyperventilation produces different symptoms - different problems - according to the genetic disposition of each individual. He and his associates successfully treated a wide range of acute and chronic conditions with his methods, from heart disease, insulin-dependent diabetes, high/low blood pressure, MS, ME, IBS, infertility, ulcers, cancer and asthma, to obesity, fatigue, panic attacks and sleep apnoea.

*"I hear a whisper of indignation and joy: 'So, are all diseases from deep breathing?' No, not all. Deep breathing causes one single disease: the disease of deep breathing. It causes a wide spectrum of pathologies. Why? It interrupts the metabolism of the substances - the foundation of life in all cells. These or other symptoms are manifested, and their strong expression is qualified as disease..."*

*Buteyko 1977, quoted by A. Rakhimov, Normal Breathing, the key to vital health*

Professor Buteyko developed a test to determine the depth of our breathing - which, in turn, indicates the level of carbon dioxide in the body. This test is what is known in yoga as *external retention of the breath* - that is, how long we can comfortably hold our breath out.

He established that a 60-second external retention of the breath indicates excellent health. He and his associates were unable to find anyone with a 60-second breath-hold, who had any health problem or "disease of civilization".

What about extraordinarily healthy people? The Hatha Yoga masters have always known the importance of breathing - by breathing very lightly and infrequently they can go without food, sleep and water for 3 or 4 days with full energy.

These yoga masters presumably do not jog, swim, row or lift weights; breathing is the secret of their good health. This is the breathing of meditation - awareness - of being grounded in reality.

The yogic breathing practices (*pranayama*) are not merely for health, but for the harnessing of energy and expansion of consciousness. Most of us need to establish correct breathing before progressing even further through yoga pranayamas.

Professor Buteyko developed a very effective method of normalizing the unconscious breath, which helps to bring about an improvement of health at all levels, sometimes in a remarkably short space of time.