The Breath Connection Facts

1.Overbreathing, either by taking larger breaths or more breaths per minute or both leads to low carbon dioxide levels in the lungs.
2.Lowered carbon dioxide levels (less than 5%) lead to spasm of smooth muscles that wrap around airways, blood vessels, bladder and other hollow organs.
3.Lowered carbon dioxide levels lead to the impaired oxygenation of the body, as blood holds onto oxygen more strongly not releasing it fully to the tissues. (The Bohr Effect)
4.Lowered carbon dioxide levels changes the acid/alkaline balance of the blood thereby impairing the entire chemistry of the body.
5.Chronic long-term over-breathing causes receptors in the brain to accept and maintain lower levels of carbon dioxide in the blood, thereby ensuring the continued state of over-breathing to the detriment of the person's health.
6.The above effects all contribute to many symptoms experienced by people suffering from cardiac & circulatory problems. For more details of these physiological effects visit our website at:
<www.buteykokent.co.uk>

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What can breath training do?

Our breathing and heart function are intimately connected. These two functions work together to ensure our bodies are well oxygenated, well nourished and well protected from infections or damage.

Anyone can therefore understand why dysfunctional breathing may be contributing to a wide range of circulatory or cardiac problems. It would therefore reasonably follow that improved breathing patterns will be of benefit to any of these conditions.

Better breathing will complement any other treatment that is being given and may even safely reduce the need for medication, with the approval of their doctor.

The benefits after training are long lasting and breathing exercises are not continued once normal breathing patterns are established.

Breath training is a safe adjunctive aid to better cardiac management.

www.ButeykoKent.co.uk

The Breath Connection

Circulation
Angina
Hypertension
Arrhythmias

Our breath connects everything in our lives: our health, emotions, our whole being and every living thing in the environment, as we all, plants, animals & fellow humans, breathe the same air.

Good breathing means good health.

www.TheBreathConnection.com

Hypertension or High Blood Pressure

High blood pressure or hypertension is a condition that has become almost epidemic in today's world and kills more people than cancer.

Blood flows from the heart where the pressure is highest to other areas in the body where pressure is lower.

The pressure is the force that the heart exerts on the blood to move it around and is primarily determined by how much blood is pumped each time out of the heart into the main artery, the aorta.

Blood presses against the walls of the blood vessels, which stretch and contract to help push the blood around. If there is an increase in blood volume due to fluid retention, or the blood vessels are narrow and do not stretch properly, then the pressure rises because the heart has to work harder to move the blood around. This is called high blood pressure or hypertension.

Blood pressure is measured by two values, systolic, the maximum pressure when the heart pushes the blood into the aorta and diastolic, the lower pressure. Normally their values are roughly 120/80. High blood pressure may be regarded as over 140/90 for the under 40's and over 160/95 for over 40's.

The factors that regulate or change blood pressure:

* The kidneys play a primary role by controlling the volume of blood and also by excreting or restoring minerals to the bloodstream.
* The tension of smooth muscle that is wrapped around blood vessels – spasm of this smooth muscle raises blood pressure.
* The thickness of the blood, for example when blood is thickened it moves more slowly than when it is very fluid and the pressure increases to push it around.
* Irregularities in the surface of the blood vessels tend to slow down the flow, which increases the pressure. (Guyton 1982)

There are two types of hypertension; primary and secondary. Kidney disease, atherosclerosis or too much aldosterone hormone from the adrenal glands causes secondary hypertension.

This type of hypertension accounts for about 15% of sufferers. The others have primary hypertension and modern medicine can find no organic cause for this. (Tortora. 1984)

The risks associated with hypertension include damage to the heart, kidneys and brain (Tortora 1984). For example if the heart has to work harder due to increased blood pressure it becomes larger, which means it requires more oxygen to function properly. If this need is not met, then the person is more likely to develop angina and the risk of heart attack is greater. The higher blood pressures may damage the tiny blood in the brain and kidneys.

Atherosclerosis or hardening of the arteries, which contributes to hypertension, is made worse by high blood pressure, thus creating a vicious circle.

Controlling Hypertension

Regular moderate exercise is essential for maintaining good health and it is also a good way to assist in weight loss, which alone may help reduce blood pressure.

Further improvements may often be made by consulting a nutritionist to determine a suitable diet,

That will help you maintain a healthy weight and also ensure you have a balanced diet.

Because nicotine narrows blood vessels and contributes to the problem of hypertension, this is as good a reason as any to stop smoking and that will do the rest of your body a favour at the same time.

References:

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While excessive consumption of salt is claimed to be associated with hypertension, the case for eliminating salt is not certain. A deficiency can mean an increase in the low-density lipoproteins that carry cholesterol to the arteries. Calcium channel blockers, which are commonly used to treat hypertension, are ineffective when the person is on a low salt diet (Youngsen 1997) The moderate use of natural unrefined sea salt which contains other trace elements and reduction of consumption of heavily salted convenience foods may be the best middle road.

Studies show that by slowing down the breathing rate to ten breaths per minute for fifteen minutes at a time, three or four times a week improves hypertension. (Grossman 2001, Schein 2001) The Buteyko Method is not about just slowing your breathing down in this manner but learning better breathing habits and many people have experienced great improvement in their control over hypertension simply by practicing the Buteyko exercises.

Stress Reduction

Since stress leads to increased breathing and heart rate with consequent increased blood pressure, it follows that the better our control of stress in our lives the healthier we shall be. The Buteyko Method helps reduce stress levels by normalizing your breathing patterns. Stress has been shown to increase cholesterol levels. (Steptoe 2005). Chronic stress and chronic hyperventilation (over breathing) go hand in hand and feed each other. The physiological effects of hyperventilation include spasm of smooth muscle (increasing blood vessel resistance to flow), reduced oxygen delivered to tissue (' the Bohr Effect, triggering demand for more blood to be pumped around the body, and increased blood pressure) and impaired sleep (see insomnia, snoring & sleep apnoea leaflet) which will generate more daily stress trying to cope.

Peter Nixon, a British cardiologist suggests that 80% of people suffering from angina are primarily suffering from hyperventilation (Perera 1988)