



Mouth Breathing During Exercise May Lead To many Health Diseases

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One of the most basic requirements for an effective exercise session is better oxygenation of your muscular tissues and organs. You can actually find out how well your tissues are being oxygenated by how you emit.

While breathing is a fundamental natural function of human beings, it can be negatively influenced by many components of modern living such as accent, sitting at a desk all day, and excessive talking. In fact, about 80 percent of the Western population breathes incorrectly.

Nasal breathing has a number of physiological advantages for your health and your fitness. The amount of benefit you derive from your exercise efforts is largely manipulated by your breathing habits, which stand upon your performance, endurance, post-exercise energy levels, and even your ability to metabolize fat. Most people overbreathe – in other words, they chronically hyperventilate. Distinctive characteristics of overbreathing include mouth breathing, upper chest breathing, sighing, noticeable breathing during sleep, and taking large breaths prior to the oral presentation. Overbreathing during exercise can cause a number of harmful effects. The means to forbid this, is to "retrain" your nose to do the job it was designed to answer.

Nose: The Most Underused Organ

Your mouth was designed for eating, not breathing. Likewise, your nose and sinuses were designed to optimize breathing in ways that may surprise you. Your upper airways are designed to "retreat" the air you breathe as it works into your physical structure.

When you breathe through your mouth, many of the things that are said to happen, don't, because the air bypasses this section of your respiratory system before it gets into your lungs. When you study in the soft flow of air through your nose, the following beneficial processes occur:

- Air is warmed and humidified before it knocks off your lungs.
- The cilia, or tiny hairs, lining your nose, trap pathogens, dust, and other foreign molecules, representing as a pre-filter before the air collides with your lungs.
- Nerves in your nasal passages (which connect to your hypothalamus) sense everything about your breathing and give that data to modulate it.



- Nitric oxide (NO) is made by your nose and sinus mucous membranes, so when you breathe through your nose, you carry a small amount of this gas into your lungs. NO is a potent bronchodilator and a vasodilator, so it helps lower your blood pressure and significantly increases your lungs' oxygen-absorbing capacity. NO also kills bacteria, viruses and other germs, so nose breathing helps in keeping you from becoming ill.

When you breathe through your mouth, none of these functions can take place. Mouth breathing is analogous to expecting your body to establish utilization of food by bypassing your stomach – it would be lacking some vital steps in the digestive process, and the end result would not be in effect.

Mouth Breathing Increases Your Heart Rate and Blood Pressure

You may intuitively think that sucking in a large volume of air through your mouth would improve your oxygenation by sheer volume. But this isn't the case – it actually *decreases* the oxygenation of your tissues. Mouth breathing results in diminished levels of carbon dioxide in your consistency because it is blown out so rapidly through your mouth.

Your body needs a balance of oxygen and carbon dioxide for optimal functioning. Carbon dioxide is not simply a waste product, but has actual biological roles, one of which is assisting with oxygen utilization. When your carbon dioxide level is similarly low, changes in your blood pH level make your hemoglobin less able to release oxygen to your cells.

Mouth breathing can raise your heart rate and blood pressure, sometimes resulting in fatigue and lightheadedness. Poor breathing is even associated with poor posture. So, breathing through your nose helps maintain your health in a number of important ways.

Effect of Mouth Breathing on Asthma

Most people chronically "overbreathe," which just means breathing more than you need to. Mouth breathing plays a vital function in bronchial asthma, especially exercise-induced asthma. In a survey printed in the American Review of Respiratory Disease, 19 young asthma patients had virtually no employment-induced after working out while passing off through their olfactory organs.

The Tarahumara Runners

We can ascertain a neat deal from the Tarahumara Indian tribe of Mexico, known for moving up to 62 miles a day on rocky terrain, in their 60s. What's their secret? Among other things, studies have indicated that the Tarahumara breathes in only through their noses, although close to apply a technique of exhaling through a partly open mouth. Portion of their vantage is that their physical structures are exceptionally proficient at optimizing carbon dioxide and nitrous oxide levels – similar to the effects of altitude training.



Method Of The Buteyko Breathing

There are simple techniques you can learn to gradually transition yourself back into nose breathing. Even if you're not planning to run like the Tarahumara, there are plenty of good reasons to make this part of your greater health plan

The Buteyko Self-Test

Dr. Buteyko developed a mere self-test for calculating your carbon dioxide levels. He found that the grade of carbon dioxide in your lungs correlates to your ability to control your breath after normal expiration. You can use a stop watch or simply count the number of seconds to yourself.

The time you just measured is called the "control pause," and it reflects the tolerance of your body to carbon dioxide. The good word is that you will feel better and improve your exercise endurance with each five-second increase in your CP. Short control pause times correlate with low tolerance to CO₂ and chronically depleted CO₂ levels. Here are the touchstones for evaluating your control pause (CP):

- **CP 40 to 60 seconds:** Indicates a normal, healthy breathing pattern and excellent physical endurance
- **CP 20 to 40 seconds:** Indicates mild breathing impairment, moderate tolerance to physical usage and potential for health problems in the future (most folks fall into this class)
- **CP 10 to 20 seconds:** Indicates significant breathing impairment and poor tolerance to physical exercise; nasal breath training and lifestyle adjustments are recommended (potential areas are poor diet, overweight, excess tension, excess alcohol, and so on) o on)
- **CP under 10 seconds:** Serious breathing impairment, very poor exercise tolerance and chronic health problems; Dr. Buteyko recommends consulting a Buteyko practitioner for help

Practicing Buteyko Breathing Daily

The foremost step to increase your CP is to discover how to unblock your nose with the following breath hold exercise. While this use is a perfectly safe practice for the immense majority of people, if you have any cardiac problems, high blood pressure, are significant, have type 1 diabetes, panic attacks or any dangerous health concern, and so please do not retain your breath beyond the first urges to take a breather. The following workout is really 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 nozzle is quite blocked, consider a tiny breath in through the nook of your lip.



- Pinch your nose with your fingers and hold your breath. Keep your mouth closed.
- Gently nod your head or shake your body until you feel that you cannot control 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 shut.
- Calm your breathing as soon as possible.

Simply repeat the above exercise several times in succession, waiting about 30 to 60 seconds in between rounds. And do the exercise on a regular basis. If you experience nasal congestion, you will likely experience decongestion after six cycles or even less. The quickest mode to increase your CP is by learning to be mindful of your breathing, noticing whenever you are mouth breathing so you can block yourself from managing it. Keep the following in mind as you move about your daytime:

- Constantly maintain your mouth closed for breathing, even during exertion (physical exertion will be bred in the following part)
- Even when you breathe through your nose, try to breathe more lightly than you normally do; you should not be able to see your breathing in your chest or abdomen
- Control your breathing all the time, especially in stressful situations.

Practicing Buteyko Breathing While Exertion

Even if you are not an endurance athlete, it is extremely important that you control your breathing when you exercise. You should be exercising only to the extent that you can keep breathing through your nose the vast bulk of the time. If this means backing off on intensity, then that's what you need to get along, recognizing that it's only temporary until your body starts to conform to your slightly increased CO₂ levels.

It will happen quickly. You simply have to get habituated to "air hunger" (an admittedly uncomfortable feeling of mild suffocation), and understand it's normal and secure. Remember, the shorter your CP, the more easily you'll get breathless. If your CP is less than 20 seconds, NEVER have your mouth open during exercise, as your breathing is too unstable. This is especially significant if you suffer from asthma.

To increase your CP from 20 to 40, physical exercise is necessary. You might start walking by just taking the air with one nostril blocked. And so, as your CP increases, incorporate jogging, cycling, swimming, weight lifting or anything else to build up an air shortage. The rule of thumb is not to push yourself to the point where you are unable to maintain nasal breathing. If you feel the need to open your mouth, then

International Journal of Sports Technology and Human Engineering

Volume I Issue VI February 2015



slow down and recover. This aids your body to gradually build up a margin for increased CO₂ – and if you persevere, this will pass quickly.

Part of the Buteyko Method involves breath hold exercises designed to simulate the effects of high altitude training. When the human body is exposed to situations in which there are reduced oxygen levels – such as the experience of high altitude, or by holding the breath – adaptations take place that force the body to increase oxygenation of the blood. The kidneys increase production of EPO and the spleen releases red blood cells into circulation. These effects combine to improve the oxygen-holding capability of your blood, in addition to the CO₂ and NO opening up your blood vessels. All of these physiological improvements are like putting your circulatory system "on steroids" – *without the steroids!*



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