

Breathing During Exercise



by Stew Smith

I received an email from an Army Soldier who was having a difficult time running a few months ago. His breathing patterns were so erratic that he was basically hyperventilating while running his two mile PFT run. Once he started breathing properly as well as exhaling fully, he was able to perform better in the run - not only did he run faster, but he had more energy to finish.

The Soldier stated:

"It finally clicked! Not only was I able to breathe and finish while running, but I was able to run faster without getting tired or cramped at all!"

Learning to breathe during exercise has benefits such as preventing dizziness during activity, improving athletic performance, and increasing fat burning.

What is Proper Breathing While Running?

Many experts will say that to fully oxygenate the muscles and clear the body of carbon dioxide you should breathe a 3:2 inhale-to-exhale ratio; full inhales and full exhales. This means you INHALE on the LEFT, RIGHT, LEFT foot strikes and EXHALE fully on the RIGHT, LEFT foot strikes. This pattern is not that hard to turn into a habit, but it may require you to slow your pace down for a few runs to master the technique. You will notice a lower heart rate as you are able to get more oxygen in and more importantly push all the carbon dioxide out of your body. You may notice that you naturally drop to a 2:1 ratio when you are really pushing it to the finish. That is OK. But realize it is difficult to maintain a pace that requires you to breathe at a 2:1 ratio. The CO₂ in your body will increase if your breathing patterns are short and hurried. This will increase your heart rate and lactic acid production, and decrease your endurance in any cardiovascular event (running, swimming, biking, etc.)

What About Breathing and PT / Lifting?

Proper breathing during exercises where you exert yourself - such as lifting, pushing, or pulling - is much easier to remember and control than the 3:2 ratio during running long distance. To put it simply: always exhale on exertion. For example, when you are pushing a bench press off your chest, you exhale on the push and inhale as you bring it slowly to your chest. When you are doing a pullup, you exhale on the pulling up motion and inhale on the way down. Breathing during exertion is important in preventing internal injury such as hernia, blood vessel strain, and high blood pressure. Because weight lifting and PT can be potentially harmful when done incorrectly, it is advised to get clearance from a doctor before performing too much - too soon. To decrease that pressure, focus on breathing deep all the time - during workouts and in your daily activities.

How Does More Oxygen Help Burn More Fat?

Oxygen + Water = Fat burn. (from "[Want to Lose Weight?](#)" article)

Basically, the body needs water and increased oxygen to burn fat as an energy source. The water intake should be anywhere from a half gallon for women and up to one gallon a day for men, and the increased oxygen consumption will assist with the other part of the equation. See the "[Water Plus Oxygen Equals Weight Loss](#)" article if you are concerned about drinking too much.

As you add more water and oxygen to your system, your body will be able to use the retained water for excretion, prompting almost immediate weight loss of retained water and toxins. This is not the same as sitting in a sauna and sweating which actually dehydrates you. Adding water will rehydrate you and enable the body to burn more fat (as long as you increase your oxygen intake by doing some form of exercise). Walking, swimming, biking, jogging, calisthenics, and even yard work can help with working your cardiovascular system.

Try the deep breathing rhythm during running and see for yourself how you will run at a lower heart rate and have more energy for a strong finish.

Stew Smith is a former Navy SEAL and fitness author certified as a Strength and Conditioning Specialist (CSCS) with the National Strength and Conditioning Association.