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Breathe, Exhale and Repeat: What Are the Benefits of Controlled Breathing?

By **Dr. Mercola** | December 02, 2016

The average person takes about 20,000 breaths a day, and you probably don't give them much thought. Breathing obviously yields incredible power over your health, as it supplies your body with oxygen (and removes excess carbon dioxide [CO₂]) to keep you alive.

However, when harnessed correctly, breathing can do far more than supply your cells with oxygen. The way you breathe — whether fast or slow, shallow or deep — sends messages to your body that affect your mood, your stress levels and even your immune system.

So-called controlled breathing, research is increasingly showing, can influence your health for the better, and all you have to do is learn how to use it. What's interesting about breathing is that it's both a voluntary and an involuntary process. Much like blood flow or digestion, your body breathes automatically.

However unlike the former two processes, you cannot decide to alter the flow of your blood or your digestive process. Not so with breathing. You can make a choice to take the reins and control your breathing — the speed, the depth and even whether you breathe through your mouth or your nose.

This is perhaps the first clue that you should take back control of your breathing at least some of the time. As you change the way you breathe, you'll also change important aspects of your health.

Controlled Breathing May Trigger Your Relaxation Response

You may be aware that your body has a “fight-or-flight” response that kicks in when you're under stress. Lesser known is that your body also has what's essentially an opposite fight-or-flight response called the relaxation response.

Controlled breathing is one way to trigger your relaxation response, as it activates your parasympathetic nervous system, which in turn may slow down your heart rate and

digestion while helping you feel calm.

By evoking your body's built-in relaxation response you can actually change the expression of your genes for the better, according to an associate professor and pioneer in Mind Body Medicine at Harvard Medical School, Dr. Herbert Benson.

In short, slow, steady breathing activates your parasympathetic response while rapid, shallow breathing activates your sympathetic response, which is involved in releasing cortisol and other stress hormones.

Lowered Blood Pressure, Brain Growth and Other Remarkable Benefits of Controlled Breathing

Beyond stress and anxiety relief, “Studies have demonstrated that SK can play an important role in promoting a healthy lifestyle by improving immunity, antioxidant status, hormonal status and brain functioning,” according to research published in the journal *Advances in Mind-Body Medicine*.

Yet another study in the *World Journal of Clinical Cases* concluded SK and other breath-based medication sequences have “the potential to help develop an individual's self-awareness and support better integration of the brain (i.e., mind) with other organ systems (i.e., body) for enhanced human performance.” More specifically, research suggests that harnessing the timing and depth of your breath may lead to the following:

- Lowered blood pressure and heart rate, including lowering blood pressure in people with hypertension
- An increase in brain size when used along with meditation
- Immune support, by altering the expression of genes involved in immune function

Why Mouth Breathing Can Make You Feel Like You're Not Getting Enough Oxygen

Most people believe that taking bigger breaths through your mouth allows you to take more oxygen into your body, which should make you feel better and more clear-headed. However, the opposite actually happens. Deep mouth breathing tends to make you feel light-headed, and this is due to eliminating too much CO₂ from your lungs, which causes your blood vessels to constrict. So, the heavier you breathe, the less oxygen is actually delivered throughout your body.

And, contrary to popular belief, CO₂ is not merely a waste gas. Although you breathe to get rid of excess CO₂, it's important to maintain a certain amount of it in your lungs — and for that you need to maintain a normal breathing volume. When too much CO₂ is lost

through heavy breathing, it causes the smooth muscles embedded in your airways to constrict. When this happens, there is a feeling of not getting enough air and the natural reaction is to breathe more intensely.

But this simply causes an even greater loss of CO₂, which constricts your airway even further. To remedy the situation you need to break this negative feedback loop by breathing through your nose and breathing less.

Clinical trials involving asthmatics show they breathe between 10 to 15 liters of air per minute and people with chronic heart disease tend to breathe between 15 to 18 liters of air per minute.¹⁹ On the other hand, normal breathing volume is between 4 and 7 liters of air per minute, which translates into 12 to 14 breaths. This suggests breathing less is a sign of better health. Conversely, the more you breathe, the more likely you are to experience significant health problems.