

How Deep Breathing Techniques Can Boost Your Immune System - The Breath Effect

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December 26, 2018 By [Emma Ferris](#) [8 Comments](#)

Your immune system keeps colds away. It's your body's front lines in the fight against illness. This protection system that provides immunity against infections and parasites is one of the most complex in the human body. A literal life-saving system of chemicals and proteins that fight off invaders in the form of viruses, harmful bacteria, and foreign bodies.

If you care about your health, you'll want to nurture this important protection system. Boosting your immune system and keeping the fire stoked is a big step towards optimal health. What is the immune system and what can we do to improve its function?

Immune System Boosters

Eating well, exercising, and sleeping adequate amounts improve the power of the immune system. But did you know that the 'simple' act of breathing properly is a terrific way of strengthening the immune defences?

We're all about proper breathing techniques and the benefits of [deep diaphragmatic breathing](#) here at The Breath Effect. And we'd like to show you, with science, how controlling your breath can improve your health for free. No pills, potions, exercise regimes, or diets required. You have everything you need already. Now take a deep breath and follow along.

The Science of Breathing and Immune Function

Complementary medicine is growing in popularity. A future without drugs will probably never materialise. But people are waking up to the idea that tools to help prevent and cure illnesses without drugs are at our disposal right now. We can't 'cure' all illnesses without medical intervention, of course, but we can influence one of the problems of the modern lifestyle: the disconnect with our bodies and environment.

Your mental state influences your physical health. There is irrefutable evidence to show that **positive thinking can make you healthier**. When one examines how the body works, it's easy to see. The functions of the brain are more chemical reactions. Synapses fire when we make thoughts. And our immune and lymphatic systems are chemical based. We are essentially a collection of chemicals, from our brains to our bones.

The air we breathe converts into chemicals that we need to fuel our cells. The way we breathe matters and even impacts our bloody chemistry.

But how do our breathing habits influence our immunity?

Inflammation

A [study from 2005](#) discussed the potential for Sudarshan Kriya and Pranayam breathing processes, forms of rhythmic breathing, in immune system improvements and stress reduction.

What's interesting is that cancer patients were the subject of the study and the results showed that performing **regular [breathing exercises](#) could help boost immune cells that can combat cancer progressions**.

The study looked at what's called [natural killer \(NK\) cells](#) (a type of cell critical to the body's immune system) and found that controlled rhythmic breathing increased NK cells over a 3 to 6-month period. It's not a quick fix, but it's a positive step in the right direction.

Breathing and the Auto Immune Response

[Controlled breathing](#) has a positive effect on the body by:

- Lowering cortisol levels
- Lowering blood pressure
- Improving autonomic (the automatic system in our body that works behind the scene) response to physical and mental stress
- Improving arterial blood flow

Taken together, these elements add up to a powerful disease-fighting box of tools. Mindful breathing can help [fight the progression of autoimmune diseases](#) by bringing our body back into the calm part of our nervous system, the parasympathetic nervous system.

Cortisol is often called the body's **stress hormone**. It performs many functions, too many to go into here, but know that high cortisol levels are a bad thing. High cortisol is associated with autoimmune diseases, poor sleep, hormone imbalance and so much more. A good enough reason to keep this stress hormone in check.

The point is that [stress is another trigger](#) for autoimmune disease activation. In times of stress, our body releases more inflammatory chemicals around the body such as histamine. This starts a chemical cascade in our protection system and the body and brain have to try and work out what defence system is required to stop an attack on the body.

Keeping stress under control is important for your long-term health. Activating what's called the **Parasympathetic** (relaxation) response of our nervous system and turning off the **Sympathetic** (stress- think fight or flight) response is key here. The parasympathetic system kicks in when we are not stressed. It's the system that works to control digestion, rest and can help slow down breathing, and heart rate.

Slow, deep breathing technique increases PSNS activity.

One of the best ways to turn down the stress response in the body and activate the parasympathetic response is to use slow, relaxed, diaphragmatic breathing. The physiological responses to deep, controlled, mindful breathing are so profound that if we could bottle them and sell them as drugs, they'd be worth a fortune. Fortunately for you, it's not that complicated. And it's free. Just breathe!

Posture and Immune Health

Look around at your colleagues, family, or even people wandering down the street (usually with cellphone in hand). See anything unusual? Notice the forward head lean, crouched shoulders, and poor gait of humans that evolved to run, jump, and climb. And importantly, to stand up with good posture. Our bad habits add up over time.

Modern technology, work environments, and stresses that our ancestors did not have to deal with have ruined our posture. These postures impact our bodies ability to access our major breathing muscle, the diaphragm. When we slump our body takes the path of least resistance and use our secondary (backup) breathing muscles, which over time get exhausted creating tight, sore muscles with trigger points around the whole body. Look at how we hurt our bodies every day:

- Sitting in a car shortening one of our fight and flight muscles, the hip flexor
- Driving to work with hunched shoulders
- Spending the entire day in the unnatural position of sitting (rather than squatting or standing)
- Dealing with workplace and personal stresses that make us tense up, crouch, and forces restricted breathing
- Using mobile phones that cause text neck posture
- Watching TV while slouched in a chair

The list goes on. Most of us don't spend our days chasing wild animals and climbing trees. The body that we've evolved is trapped in a world of modern conveniences.

Where does breathing come into this?

Think about when you're seated at a desk or in front of the TV. Notice that your lungs compress as your upper back is pushed forward. Your neck might be craning forward too.

You can not breathe optimally when you don't sit optimally.

How does this influence stress and our immune system?

The answer is in our evolutionary path. Humans are animals with big brains, and we show the same characteristics as dogs, cats, and apes when afraid or threatened. We change our breathing to be faster and use our back up breathing muscles (upper trapezius, sternocleidomastoid, pectorals and scalanes). Our body increases its breathing capacity by increasing its volume and rate to get more oxygen into help supply our cells to get us out of danger. We hunch our shoulders, tense our muscles and inhale to mobilise our body. This is a signal to the body that a threat is near. Our body and brain respond by sending out the so-called "fight or flight" response. Stress hormones flood our bodies and the **sympathetic nervous system** activates.

If you put yourself in this state of high stress on a regular basis, you'd likely end up with a long-term condition or disease. But that's exactly the state we put ourselves in when we exhibit bad posture and bad breathing habits. Hunching and compressing our diaphragm is a signal to our body to keep activation our stress response. A signal we don't want to send if we care about our long term health.

The solution: **activate your diaphragm and breathe**. Strengthen your immune system by fixing your posture and breathing as nature intended.

The Most Famous Breather and Immune System