

COVID 19 BEST PRACTICES: BREATHING

Dr. Belisa Vranich

The best way to have “strong lungs” is to strengthen the muscles that make them fill and empty—the 10 pounds of inhale and exhale muscles that include the diaphragm, intercostals, and core/ab muscles. Realize that your lungs don’t power themselves; you need to do breathing exercises to keep them healthy.

Why do breathing exercises?

1. Doing breathing exercises can help minimize the risk factors for COVID (the possibility of it going from mild to moderate or severe).
2. Doing breathing exercises can help you recover from COVID.
3. Doing breathing exercises can help manage the inflammation caused by stress and high cortisol.

1. ***Doing breathing exercises can help minimize the risk factors for COVID***

One of the risk factors for COVID complications/severity is high blood pressure. There are numerous sound scientific studies that document that blood pressure can be lowered/controlled with daily breathing exercises.

Having strong breathing is something you can measure and practice. Doing breathing exercises, apart from cardiovascular exercises, is vital, since “cardio” works your heart, not your breathing muscles as specifically or as hard as needed to strengthen them. Having “strong” breathing (capacity and velocity) is an important factor in longevity—especially since your breathing starts to decline after age 29.

People with respiratory illnesses like COPD (Chronic Obstructive Pulmonary Disease) are more at risk for COVID-19. COPD is the fourth leading cause of death in the US. Breathing exercises—particularly those that strengthen the exhale—are something that pulmonary rehab focuses on (to combat “overinflation,” the breathlessness and fatigue that accompanies it); however, you can do these on your own as part of prevention and good health practices to have a strong respiratory system.

2. ***Doing breathing exercises can help you recover from COVID***

Maintaining oxygen levels can be helped through mechanically sound breathing. Having a balance of strong inhales and exhales (oxygen and CO2) is what makes for good readings.

If COVID progresses to pneumonia it’s critical to have an “efficient” cleansing cough. To cough efficiently, start by simply focusing on your exhale. Rather than just letting the exhale be a passive recoil, try narrowing both your belly and ribs as well (remember, the densest most oxygen-rich part of your lungs is in the middle of your body, not at the top).

The feeling of tightness and psychological tension of being sick can cause you to “hover” in your breathing; that is to say, take only shallow sips in and out. This shallow breathing results in a vicious loop of stress and tension. While the easiest way to learn to breathe diaphragmatically is while you are on your back, breathing on your side does allow for the lateral expansion of the lower part of the lungs. Child’s Pose from yoga is the best posture in which to practice to “breathing through your back.”

3. Doing breathing exercises can help lower the inflammation caused by stress and high cortisol

Breathing is the mind-body connection. If you are tense, it's because your breathing is telling your mind that the environment is dangerous. Stress makes for a higher heart rate, higher cortisol, and a lower immune system.

Stimulating the vagus nerve in order to achieve a more parasympathetic rest and digest state is achieved through the breath, both in the location of the breath and in the amount of expansion. An abdominothoracic breath (belly and ribs) that has good "Range of Motion" (wide inhale and narrow exhale) gives you more choices as to the pacing and slowing down of the breath.

What to do? Practice ITS: Interrupt the Stress. Stress makes us brace, bracing makes us feel prepared. We humans are very resilient, but we need a reset from time to time. In order to reboot, unbrace your body and take a few belly breaths through your nose. This simple interruption of stress gets you out of the fight or flight for a few seconds, and this is what your body needs to reset and keep going.

Immediate Action Items

1. Ensure sure you have a good mechanics by taking the Breathing IQ (www.thebreathingclass.com/biq). Interestingly enough, a more simple version of the BIQ that only considered chest expansion started in the late 1800s during the height of the another respiratory illness epidemic, tuberculosis. The BIQ combines type of breather (Horizontal, Hybrid, or Vertical) with abdominothoracic flexibility (Range of Motion). It is an easy, noninvasive functional breathing screening.
2. A good breath is one where the body widens horizontally, then narrows on the exhale rather than stretching up and down or puffing up the chest (using "auxiliary" muscles). If you need an example, just look at your family cat or dog. Work on your ribcage flexibility (www.thebreathingclass.com/breathing-through-covid19). Next: strength. Once you have good mechanics, move on to strengthening your breathing muscles. (Some good news is that this diaphragmatic breathing can also alleviate digestive problems and back pain.)
3. Practice breathing with your kids (see The Belly Breath, www.thebreathingclass.com/the-belly-breath). All the proceeds from this book go to COVID relief efforts.

Notes:

If you have a neuromuscular disease like Parkinson's, these exercises are imperative for you.

These recommendations are not meant to diagnose or replace any advice from your physician, they are complimentary, and part of a growing database of instruction to help prevent and heal from respiratory illnesses.

Dr. Belisa Vranich is a clinical psychologist and the author two books on breathing mechanics and psychology. She works with the New York City Fire Department's Mental Performance Initiative, and was the former Director of Breathing Science at the Ash Center for Comprehensive Medicine in NYC.