

# Breathing for Wellness

By Katie Stanley

*“Just breathe.”*

You may have heard a friend or colleague say this to you during a difficult moment. In meditation or yoga classes, we’re often told to focus on our breath rising from the base of our spine, elongating and expanding the space between vertebrae with each focused inhalation. When we start training our bodies for an increase in physical activities, perhaps a first 5-kilometer run, elite trainers tell us to inhale through our noses to better oxygenate our bodies. Breathing practices for wellness date back millennia. From the seven books of the Chinese Tao dedicated exclusively to breathing; to Hindu and Buddhist breath practices meant to increase mental and physical wellbeing; to yogic breathwork meant to increase *prana*, or life force; to Japanese, Greek, Hebrew, and Iroquois beliefs and practices linking breath to wellness; to modern research at leading institutions that echo these ancient accounts — the bottom line is that *how we breathe matters*.<sup>1</sup>

As I embarked on my own mindfulness journey, I began paying attention to the quality of my breath throughout the day and simply observing correlating sensations when it was shallower and sharper compared to when I breathed deeply, slowly, and to my full pulmonary capacity. This got me wondering about the quality, nature, and awareness of breath. As someone who frequently suffers from allergies and difficulty breathing, I realized I had been breathing my whole

life and yet had much to learn about this most essential biological function as it relates to overall wellness. This is the beauty of a mindfulness practice — we notice how being more present with our minds, bodies, and spirits can benefit us not just in meditation, but in all aspects of our daily lives from the most complex to the most basic.

## How we breathe matters

Human beings take an average of 20,000 breaths per day, mostly passively. Every breath we take impacts our blood pressure; our anxiety, energy, and hormone levels; our heart rate; our attention span; and more.<sup>2</sup> Conveniently, we’ve evolved with two ways to breathe (through our mouths or through our noses.) Does it really matter which way we do it? As it turns out, the way we breathe matters tremendously for our well-being.

Maybe you primarily breathe through your mouth, perhaps at night due to sleep apnea, or you’re someone who suffers from obstructed breathing; do you find yourself exhausted, stressed, or distracted? Breathing through our noses not only filters, moistens, and pressurizes the air we take in, but it has also been found to lower blood pressure, help maintain a steady heart rate, aid digestion, and provide more oxygen and energy to the body as a whole.<sup>3</sup>

Breathing through our nose provides a host of health benefits, but I never imagined just how much my own nose was up to while I passively take in and let out air. Research confirms what we now refer to as nasal cycles, during which our nostrils gently open and close in alternating sides throughout the day and night. This phenomenon was first described 1,300 years ago in the ancient Sanskrit text “Shiva Swarodaya.”<sup>4</sup>

Although we’ve yet to fully capture the significance of these cycles, we do know

that the right nostril activates the sympathetic nervous system which is related to cortisol (“stress chemical”) levels, blood pressure, and heart rate. Breathing through the right nostril has also been shown to increase blood flow to the opposite hemisphere of the brain — in this case, the prefrontal cortex, our logical decision-making center. The left nostril, on the other hand, has the opposite effect, being more connected to our parasympathetic nervous system that helps lower blood pressure and anxiety. Breathing through the left nostril also causes blood flow to shift to the opposite, more creative, abstract areas of our brain.<sup>5</sup> One recent study even hypothesized that breathing dominance in the right nostril in a female suffering from schizophrenia was causing overactivity in the imaginative side of her brain and increasing hallucinations. Once she was able to breathe better, she had significantly fewer hallucinations.<sup>6</sup> We are just scratching the surface of *how we breathe matters*.

## Anxiety and breath

Are you an anxious attorney like me? Dr. Justin Feinstein, a clinical neuroscientist who studies the connection between the body and the brain, has been exploring the ties between how we breathe and anxiety disorders. He recently discovered that the amygdala, the part of the mind that helps us perceive fear and emotions, is also linked to aspects of our breath.<sup>7</sup> As Dr. John Douillard, a Colorado physician who primarily advises elite athletes, describes, “[I]t could be that anxiety, at its root, isn’t a psychological problem at all, but rather a problem with breathing.”

This is partly because how we breathe, as described above, changes which biological systems we engage and the quality of that engagement. Breathing through our noses

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helps drive oxygen to the lower lobes of the lungs as opposed to shallow breathing that primarily fills the upper lungs. When we breathe deeply, the lower lobes of the lungs, which are connected to more parasympathetic, or “calming and repairing,” nerve receptors, are also engaged as opposed to only the upper lobes in shallow breathing, which have more “fight or flight stress receptors.”<sup>8</sup> Take a moment to notice your breath right now — is it shallow and fast? This could be part of why you feel anxious.

## Exhale: When less is more

When I first began to explore mindfulness, I understood the concept of paying attention to my breath during meditation or exercise, but I didn't know what to *do* about it. I noticed that I was breathing fast and shallow and suspected that breathing this way might be contributing to my own overall well-being and anxiety, so I set off on a journey to find out more. Interestingly, modern science is finding that there is a perfect rhythm to breathing (around six exhalations per minute) that can cultivate a cascade of positive physiological responses and help us relax. This breathing pattern increases blood flow to the brain and causes the systems of the body to “enter a state of coherence, when the functions of the heart, circulation, and nervous system are coordinated at peak efficiency.”<sup>9</sup>

Fascinatingly, this breathing pattern is also mimicked in various cultures as *prayer*. In 2001, researchers at the University of Pavia in Italy found that Buddhist mantras and the original Latin version of the rosary require almost the identical number of average breaths as other Hindu, Taoist, and Native American prayers — right around six breaths per minute.<sup>10</sup> Once again, the significance of breath was acknowledged across various cultures, traditions, and beliefs.

What else does modern science have to say? There is evidence that slowing our breathing can lower blood pressure, alleviate symptoms of depression and anxiety, and even help with insomnia. That's because deep, slow breaths activate and feed the brain stem differently, particularly the vagus nerve, which is associated with heart rate, blood pressure, and helping the body

“shift from ‘fight or flight’ to ‘rest and digest.’”<sup>11</sup> Elite athletes practice breathing more slowly and deeply because it increases oxygenation in the body, encouraging peak performance. But breathing more slowly and consciously isn't just for athletes like Emil Zatopek, the “Greatest Runner of All Time,” who famously practiced holding his breath and slow breathing during training; it can help us as well — we can all benefit from reduced stress levels and greater overall health and well-being.<sup>12</sup>

## Simple practices to try

As you can imagine, there are many different breathing practices you can try all the way up to and including the Wim Hof method practiced by extreme athletes that enables them to develop an unusual resistance to cold, even in extreme climates. Wayne State University studied this phenomenon in 2018, finding that “the practice of the Wim Hof method may... have implications for managing medical conditions ranging from diseases of the immune system to more intriguingly psychiatric conditions such as mood and anxiety disorders.”<sup>13</sup>

Here is one basic way to start your journey as outlined by the University of Michigan Health Library:

## Belly breathing

- Sit or lie in a comfortable position and put one hand on your belly below your ribs and the other hand on your chest.
- Take a deep breath in through your nose, letting your belly push your hand out. Your chest should not move.
- Purse your lips as if whistling and breathe out while feeling the air go out with the hand on your belly. Use that hand to push all of the air out to exhale completely.
- Do this 3 to 10 times, and take your time. Notice how you're feeling after.<sup>14</sup>

Happy breathing, fellow legal pulmonauts! Perhaps now you, like me, will never think of this most basic biological function as it relates to overall wellbeing the same way. ■

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## ENDNOTES

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