



Breathing and Sleeping – the Foundation of Wellbeing and Longevity. (Part 2 – Breathing)

There are two fundamentals: sleep and breathing. Combining these with good nutrition, regular exercise, [resting time](#) and healthy relationships, is the key to better and healthier aging, strong immunity and overall longevity.

Polluted cities and COVID-19 brought the value of quality breathing and general health back into focus. Today, we cannot avoid news about the impact polluted air has on our health, and we all know the effect that COVID-19 has on our respiratory system, especially on those with pre-existing conditions such as diabetes. Since the 1970s, chronic disorders have been increasing; asthma and autoimmune diseases are on the rise and we are in the midst of a mental health crisis, with people feeling lonelier and more isolated than ever. So, what can you do to strengthen your immune system and maintain physical and mental health as much as possible, with only limited time on your hands?

Breathing is more than just a biochemical or physical act to feed cells and remove waste. It is the most intimate connection to our surroundings. Our breathing influences nearly every organ. It affects heart rate, digestion, moods, attitudes and is an effective power switch for our autonomic nervous system. We are breathing between 25 000 to 30 000 times a day and unless you have a health problem, such as a respiratory tract infection or asthma, breathing is a natural, unconscious act.

For me, breathing and its importance to our health, focus, longevity and the ability to regulate our emotions is one of the biggest discoveries I've made over the last few months. So, how can we regulate optimal decision making in the face of work demands, challenging situations or extended periods of stress that involves others? Stig Severinsen, four-time world freediving champion with a degree in biology and a PhD in medicine, believes that controlling our breathing leads to better performance, healing and stress reduction. The army and top athletes are also known to use different breathing techniques, such as box breathing, for optimum performance.

Smaller Jaws, a Lack of Chewing and Mouth Breathing All Impact Our Health.

Every day, we go about our business and breathing happens effortlessly and automatically. Only when this process is interrupted by a stuffy nose or infection, do we have more appreciation for the ability to breathe freely. The interesting thing is we actually breathe a lot less freely than our ancestors did. Over the past few hundred years, our mouths and our ability to breathe have changed dramatically; unfortunately, not for the better.

The alterations are a result of less breastfeeding, modern dentistry and changes to our diet from raw food to cooked food that is more processed and often softer. These evolutions all reduced and weakened our jaws and airways, and quite literally our mouth structure degraded. Compared to our ancestors, modern mouths are not wide enough, resulting in our tongue no longer fitting between our teeth. We now have weakened jaws that have narrowed and shortened by up to 21 percent and

this impacts the delicate nasal structure leading to a stuffy nose, snoring and, in extreme cases, sleep apnoea.

According to Dr James Nestor, 40 percent of the population suffers from chronic nasal obstruction and many of us have become habitual mouth breathers. Mouth breathing causes dry airways and inflammation, which over time can lead to heart disease, high-blood pressure, allergies, asthma and more.

Here are a couple of questions you can ask yourself. Each 'yes' indicates that you are at a higher risk for disordered breathing and its associated risks:

- Have you had any dental or orthodontic work, particularly tooth extractions?
- Do you breathe through your mouth?
- Do you snore and wake up feeling unrested?
- Did you have allergies as a child?
- Did you have frequent sinus infections as a child?
- Have you had or discussed having your adenoids or tonsils removed at any point?
- Do you have a scalloped tongue? (A condition where there are imprints on your tongue from you pushing it down into your teeth while you sleep.)
- Have you struggled with any of the following: cold hands, cold feet, low-blood pressure, high-blood pressure, irritable bowel syndrome, chronic fatigue, headaches, teeth grinding, TMJ disorders or fibromyalgia?

The historical development of our mouth structure proves that evolution does not always mean progress. In fact, Daniel Lieberman explains this phenomenon as [dysevolution](#).

Opening Your Airways by Breathing Through Your Nose.

The chewing and suckling motions required for breastfeeding exercises the masseter and other facial muscles, and promotes stem cell growth, stronger bones and more pronounced airways. Humans now have one-tenth of the expected nasal area for a mammal our size. Under normal circumstances, from the moment we are born we are natural nose-breathers, which is our body's preferred method. The reasons are many. When we breathe through our nose, the air is warmed, filtered for pathogens and humidified for easier absorption. Anyone who lives or has visited polluted cities has experienced how much our nose filters out – just take a peek at your handkerchief after blowing your nose!

James Nestor's mouth breathing experiment, detailed in his book *Breath: The New Science of a Lost Art*, revealed that the practice can impact erectile dysfunction and trigger chemical imbalances that impact our blood pressure and digestion. It can lead to depression and can cause sinus headaches. Years of research by Anders Olsson (founder of the conscious breathing concept), and also by Dr John Douillard, concludes that mouth breathing can put the body into a state of stress and reduce athletic performance.

After reading all that, I had to test this out for myself and experience what it was like to breathe entirely through my nose while running. It was hard, and I admit I struggled quite a bit and had to considerably reduce my speed. I quickly realised that it takes practise and time to switch over to not only mouth breathing, but also to taking longer breaths while running to allow my lungs to soak up more air in fewer breaths. After concluding his research, Douillard reported that his tested athletes felt invigorated. Nose breathing could cut total effort in half and offer huge gains in [endurance](#).

According to Dr Mark Burhenne, 'The health benefits of nose breathing are undeniable.' Nose breathing alone can boost nitric oxide sixfold, which is one of the reasons we can absorb about 18 percent more oxygen than through mouth breathing. Nose breathing increases oxygen circulation and improves immune function, weight management, mood and sexual function.

If you struggle to avoid breathing through your mouth, you can try [mouth taping](#) (sleep tape) or discuss the next steps with your doctor. This will be an adjustment and it will take some time to clear and open up your airways. Burhenne has noted that mouth taping helped a five-year-old patient to overcome ADHD, a condition directly attributed to breathing difficulties during sleep. It also helped Burhenne and his wife cure their own snoring and breathing problems. Hundreds of other patients reported similar benefits.

Less Is More when it Comes to Breathing.

When we inhale, we take in oxygen and release carbon dioxide from our blood. Our blood is usually already fully saturated with oxygen (about 99 percent saturation) and breathing deeply does not increase this level. It does, however, release a lot of carbon dioxide. This in turn lowers our urge to breathe. The brain stem – specifically the pons and medulla oblongata – is sensitive to carbon dioxide. Having too much in the blood will trigger breathing signals to the muscles that control respiration. By removing carbon dioxide from the blood through deep breathing, this urge to breathe is reduced.

You can see that it is beneficial from time to time to focus on your breathing so that it doesn't become erratic, especially when you face the stressors of day-to-day life. Today, most of the population is chronically over-breathing (about 20 breaths per minute). Less is more, but it will take time and awareness to change your unconscious habit and breathe slower (6–12 breaths per minute is ideal). The key to optimum breathing and all the health, endurance and longevity benefits is breathing slowly through your nose and into your belly, practising fewer inhalations with less volume.

Slower breathing and with less volume, however, is a specific topic that can have health risks. So, if you are interested in refining your breathing even more and pushing your endurance, I suggest diving deeper into this [topic](#). It will take some dedication and practise – less-volume breathing is not for everyone.

The Benefits of Consciously Holding Your Breath

We do not breathe because we need oxygen, we breathe so that our body can manage carbon dioxide levels. The need to breathe is activated by a cluster of neurons called the central chemoreceptors that are located at the base of our brain stem (the medulla oblongata). When we breathe too slowly and carbon dioxide levels rise, these neurons will send an alarm signal to the brain, telling our lungs to breathe faster and more deeply, and vice versa. So, holding our breath consciously when stress is running high at work, which is not the same as unconscious shallow and erratic breathing, can assist with our bodies becoming more flexible to the carbon dioxide levels in our system. Holding your breath appears simple but is in fact a multifaceted and complex parameter. It reveals the degree to which you are psychologically in balance – your mental stability – and how well you are tuned in to your body. The simplicity of breath-holds makes it an excellent barometer of your stress level and makes progress easy to measure.

Try it for yourself: sit back; relax; inhale; hold your breath for as long as you can; and then start breathing again. What took place in your body? What happened in your mind? How long could you hold your breath? How did it feel afterwards? Is there a difference when holding your breath in the

morning when carbon dioxide levels are high versus in the evening?

Breath holding can help treat people who suffer anxiety as an alternative to antidepressants. Other benefits of holding your breath temporarily include brain cell protection, improved lung capacity, a strengthened diaphragm, reduced levels of stress and anxiety, and even improved longevity. Please remember to NEVER hold your breath in water in case you become unconscious.

Breathing Techniques You Can Choose From.

Stress can take its toll on our mental and physical health, including our heart health. With different breathing techniques, we can learn to regulate ourselves. As a rule, we have four different types of breathing that each serve a different purpose. (Note, there are a lot of different variations and different names for each type, for example Wim Hof breathing, free-dive breathing, etc.)

1. **Inhale, hold, exhale and hold respiration to balance arousal** (4–5 seconds for each step)
This technique is beneficial to anyone, but especially those who want to meditate or reduce stress. It is used by everyone from athletes to US Navy SEALs, police officers and nurses. Start with 10–20 cycles. [Box breathing](#) will keep you calm, alert and focused and is a great way to anchor our neurology.

2. **Inhale-emphasized respiration to increase arousal**
This stress-induced breathing method has been practised by Tibetan Buddhists for the past few thousand years and helps to condition your body to remain flexible to the constant pressure (i.e. chronic stress) of modern life. It can be a preventative therapy to get a distressed nervous system back on track and keep it there. It's also effective for patients suffering from anxiety, depression and autoimmune diseases.

How it works: Inhale deeply through your nose or mouth into your belly, chest and rib cage, and exhale unforced (let go) through your mouth. You can also hold air in-between your inhale and exhale for 2–5 seconds, if available to you. This technique is similar to [Wim Hof's](#) method, which focuses on deep and rhythmic inhalations and natural exhalations (without force). Hof describes it as 'controlled hyperventilation or power breathing' of 20–30 breaths, followed by a retention time of holding your air. By practising this conscious breathing exercise, you are releasing more energy, influencing your nervous system and changing various physiological responses. You voluntarily induce a short stress response which ultimately will lead you to be more resilient towards everyday stress and feel mentally and physically more in control. Please do NOT practise this if you have a heart condition or are pregnant. Also, please NEVER try this driving or while in the water etc. in case you fall unconscious!

3. **Exhale-emphasized breathing to relax arousal** (try 3–4 seconds in/6–8 seconds out)
Ideally, breathing through your nose with longer, slower exhales and, if you wish, holding your breath after the inhale and exhale, will make your heartrate rhythmically fluctuate up and down. This rhythmic variability in heartrate mirrors your inhales and exhales so that you have maximum heartrate at the end of the inhale and minimum heartrate at the end of the exhale. More importantly, this physiological shift of longer exhalation hacks the vagus nerve, combats the fight-flight-or-freeze stress response and improves heartrate variability (fluctuation in beat-to-beat intervals of a human heartrate).
4. **Inhale and exhale forced, alternating nostrils breathing** (6–8 seconds per breath)
Nadi Shodhanana (alternate nostril breathing) is a yogic breath-control practice that promotes wellbeing, has a calming and relaxing effect, and other benefits of conscious

breathing, such as slowing down your heartrate.

How it works: After a complete exhale, use your right thumb to close your right nostril. Inhale through your left nostril and then close the left nostril with your fingers. Open the right nostril and exhale through this side. Inhale through the right nostril and then close this nostril. Open the left nostril and exhale through the left side. This is one cycle. Always complete the practice by finishing with an exhale on the left side.

Optimal breathing corresponds to the needs of our body at any given moment. If we are relaxed, we breathe in and out through our nose in a slow, relaxed, rhythmic and silent manner.

You will find your own preferred breathing technique based on your preferences and what you need the most. Overall, all of the above techniques will reduce anxiety and help you to better navigate everyday stresses. It is important to breathe through your nose, and if you cannot, you can use the taping technique to slowly clear your airways again.

I invite you to join me in this simple self-care breathing practice of [box breathing](#). Before you get started, make sure that you are seated upright and straight in a comfortable chair with your feet flat on the floor. Try to be in a stress-free, quiet environment where you can focus on your breathing. Keeping your hands relaxed in your lap with your palms facing upwards and focus on your posture. This will help you take deep breaths. It will help you to relax and anchor you to the present moment, leading to an overall better performance. You can do it anywhere, even when you are on the move.

Find more self-care information in my article on [wellbeing](#).

Get in contact if you would like me to support you to improve your wellbeing, performance and focus, to achieve your goals. I am here to help you with proven coaching tools, ask reflective questions that increase your awareness of what is holding you back, show you how to make changes and set you up with a tailored plan.

Iris – Your Transformational Coach



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