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HEALTH + PERFORMANCE

Slow and silent breathing

Basic breath training for improved health & performance

One of the most overlooked components of health and performance is the most fundamental thing we do: breathing.

I get it, it sounds too good to be true. After all, you've been doing it your whole life and you're still here.

But consider the fact that breathing is one of the only human functions that is under both voluntary *and* involuntary control. (For example, just sitting here reading this you can voluntarily pause your breathing. If you were to suddenly sprint up a set of stairs, your breathing rate would involuntarily increase by necessity, in large part to replenish energy expended in your efforts.) It is something that affects every system of the human body. And since we *do* have the ability to control our breathing to some extent, it has a profound impact on our lives.

The most talented free divers can hold their breath for 10, 15, even 20+ minutes! But this is something that takes years of specific and dedicated training to reach times the average person won't even come close to, and is still only a tiny fraction of the time we can go without water (days) or food (weeks).

Breath control training is something that has been used for millennia across all cultures and religions, and by monks, athletes, and modern therapists alike. But you don't need to be any of those things to harness the power of the breath. And perhaps best of all, it can be practiced anywhere, at any time, without any fancy equipment. I've used and continue to use breath training in a variety of ways for myself and clients with some pretty remarkable results. But, you don't have to take my word for it—try for yourself! This guide is meant to be an introduction to some of the basic breath control training techniques I use, with some simple exercises you can do every day to help improve your health and performance.

For more information on breathing in general, check out the book *Breath* by James Nestor. For more information on the techniques below, check out *Oxygen Advantage* by Patrick McKeown.

Disclaimer: This guide is not intended as substitute for professional medical advice, nor is does it intend to or promise to cure any diagnosed or undiagnosed medical condition. If you experience any dizziness, faintness, or shortness of breath, stop immediately and consult a medical professional.

To improve at anything, we need to establish a baseline against which to measure progress. For this guide, we'll use a pause after a normal exhale (**Exhale-Pause Test)** as a measure of your progress. Here's how to test it to establish your baseline. (Important note: *this is not a "how long can you hold your breath" test.* This is a test of how long can you comfortably go without feeling the need to inhale.)

Performing the Exhale-Pause Test

- After about 5 minutes of complete rest, take a normal exhale, then pinch your nose.
- Hold until you feel the *1st hunger for air.* This might be an urge to swallow, or a little "spasm" in your diaphragm or stomach muscles, or just a mild discomfort. Once you feel that, let go of your nose and stop the timer. That's your time.
- Your next breath in should be a normal breath in. If you have to gasp, you held it too long. Reset after about a minute or so, then re-test. Anything less than 20 seconds needs to be addressed. 20-40 seconds is good. 40+ seconds is great.

Now that you have a baseline, you can re-test after practicing the techniques below:

1) Slow and silent

Perform for 10 minutes 2-4x/day; at least before bed and first thing in the morning, but you can also easily fit this in during breaks in the day.

- Nose breathing only. Entire top surface of tongue resting on roof of mouth, tip of tongue slightly behind but not touching upper teeth.
- Sit comfortably in a chair that has a seat back, with feet on the floor (use a book or something under your feet if chair is too high for your feet to be flat) and back against the seat back.
- Place 1 hand on your chest and 1 just above your belly button. Stay as relaxed as possible ("sink into" the chair).
- Inhale slowly and silently. Feel your abdomen and chest move ever-so-slightly outward as you do.
- Exhale longer than your inhale. Feel your abdomen and chest move ever-so-slightly down & in as you do. Pause as long as you can until only slight discomfort sets in.
- With each breath, take a little less air in than you think you need.
- Make exhalation relaxing; can be helpful imagining waves on a beach gently rolling out, or a relaxing "sigh."
- As you continue to reduce your inhales, you'll notice your breathing rate slowing and movements becoming less.

After 10 minutes, perform the **Exhale-Pause** test again to see if your score has changed. Test regularly to track any changes.

2) Breathing throughout the day

- Nose breathing only. Entire top surface of tongue resting on roof of mouth, tip of tongue slightly behind but not touching upper teeth.
- Do regular check-ins throughout the day to slow down your breathing rate
- Think “Slow and Silent”
- Longer exhales than inhales

3) Breath practice during physical activity

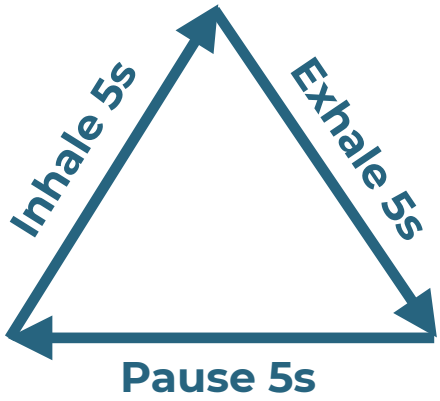
The following techniques are intended to be done very slowly at first. Nasal breathing during physical activity is an example of “self-limiting” exercise. In other words, by nasal breathing you are purposefully limiting the level of intensity you are capable of in order to train your body to become more efficient at utilizing oxygen (see table in next section).

- While out for a walk or hike, keep your mouth closed, breathing only through the nose.
- If you have a stationary bike or other cardio machine, try 10 minutes of nose breathing only. (Do not start this technique in an intense interval class, for example.) You will go slower at first—this is normal. If you are used to going hard and find yourself needing to mouth breathe, simply slow down to a pace you can maintain while nose breathing. After a week or two of regular practice, you should begin to see improvements in 1) the amount of time you are capable of going while nose breathing, and/or 2) your output (wattage) you can maintain while nose breathing.

**Note: do not apply this nose breathing technique to heavy lifting or explosive movements. Nose breathing is not as effective at producing short bursts of intense strength or power. It is much more well suited to endurance, or “aerobic” endeavors.*

4) Triangle breathing

You may have heard of the term “box breathing” in which you exhale for 5 seconds, pause for 5 seconds, inhale for 5 seconds, and pause again for 5 seconds. This is a variation on that technique.



This can be done initially when you are by yourself in a quiet place and can be part of a meditative practice, but it does not have to be if meditation is just not your thing. Again, simply try to breathe as silently as possible. The idea is to purposefully slow down the breathing rate. Pausing after the *exhale* can be a powerful calming signal to the brain and can help reduce tension.

Think of it this way: breathing should match the demands of the task, so if our breathing rate *at rest* is too high, then when we begin to physically exert ourselves, it’s only going to go higher, which means we will fatigue faster. In this sense, to me breathing rate at rest represents the “floor,” and breathing during intense physical activity as the “ceiling.” We can train our physical capacity via exercise as much as we want to try to raise the ceiling of our performance, but if our breathing rate is too high at rest, that is going to make the space between the floor and ceiling smaller and ultimately limit our physical fitness.

Why nose breathing?

Nose breathing is basic, fundamental human breathing. Ever heard the term "mouth-breather" used as an insult? Well, when done regularly, it is an insult to our body.

That is not to say that mouth breathing *in and of itself* is bad. For example, swimmers, singers and musicians who play a wind instrument will inhale through the mouth to fill up with a larger volume of air. And during intense physical activity, it's a nice back-up when we need it. Think of the sprinting up the stairs example above. You pushed yourself really hard in a short time frame, so your breath rate increases dramatically as a result.

However, ideally mouth breathing is short term so we can get back to normal nose breathing as quickly as possible. It's when mouth breathing becomes higher in frequency and duration (higher exposure)—when it becomes the norm rather than an exception—that it becomes detrimental to our health and performance.

Here's a partial list of the benefits of nasal breathing as compared to mouth breathing:

Nasal breathing	**Mouth breathing**
Warms, humidifies and filters air	Excess moisture loss; dehydrate faster; increases thirst
Creates Nitric Oxide (NO), critical for immune system function	No Nitric Oxide creation; as a result, drives increased mucus creation to compensate
NO creation also improves oxygen (O2) utilization (18% increase in O2 absorption)	Less efficient O2 utilization as increased O2 inhaled is largely exhaled back out
Increases abdominal muscle activation during respiration via increased resistance to airflow	Decreases abdominal muscle activation during respiration
Increases parasympathetic system function ("rest/digest/chill" part of nervous system)	Increases sympathetic nervous system function ("fight/flight/freeze" part of nervous system)
Improved carbon dioxide (CO2) tolerance	Decreased CO2 tolerance, leading to over-breathing
Improved endurance as compared to mouth breathing	

I hope you've found this information helpful. If you have any thoughts or questions about this guide, feel free to contact me at chris@coachchrismullins.com

– Coach Chris