

# Breathwork: Breathing on purpose

Breathing can be an important way to help regulate our level of physiological and psychological arousal.

**“BREATHWORK” IS A FANCY WORD FOR DELIBERATE BREATHING TECHNIQUES THAT DO THIS.**

Breathing (aka respiration) is controlled by our autonomic nervous system (ANS). So, most of the time, we do it unconsciously.

However, we can also breathe *consciously* in order to change our physiological and cognitive responses to particular situations.

Breathing can change the tone of the ANS, as well as the position of our skeletal system and the function of our muscles.

**In other words, we can change the state of our mind and body — whether it’s being more relaxed, or more activated — simply by breathing on purpose.**

Here are some ideas to try.

- Purposeful breathing to maintain ease
- Breathing to improve exercise technique and recovery
- Calm-down breathing to lower anxiety and physiological arousal
- Self-experimenting with breathing exercises

## Purposeful breathing to maintain ease

### BREATHING MEDITATION

In its most basic form, “breathwork” involves intentionally attending to all of the sensations of your breathing.

For instance:

- How does the experience of breathing feel?
- Can you sense air coming in and going out?
- What do you observe is happening in your body as you do it?

This deliberate observation helps you become more aware of what you’re experiencing in the present moment.

Breathwork helps us shift our attention away from cognitive activity (i.e., thinking, worrying, remembering, etc.) that may be causing stress or anxiety in our minds, as well as physical tension or restlessness in our bodies.

Focusing attention on the felt sense of the present moment — by experiencing our breath — can be a powerful practice to relieve this stress and anxiety.

### SYNCHRONIZING BREATHING TO BODY WORK

#### Massage or manual therapy

**Paying attention to your breath and using long, deep exhales during body work will help your muscles to relax.**

This is particularly true if there are a lot of uncomfortable knots or tight spots.

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For instance, if you're getting a massage:

- Synchronize your breath with the movement of the practitioner to help expand your ribcage and stretch out muscles in your mid-back.
- Or, take a long, slow exhale to help relax and shorten muscles along your spine (and make them easier to press into).

If you're doing foam rolling or some other type of self-myofascial release:

- Breathe in through the nose for a count of 4. Hold your breath for a count of 4 seconds while contracting the muscle being released. Then, exhale through your mouth for a count of 8 while relaxing the muscle.

### Mindful movement, yoga, and mobility

**During a mindful movement practice like yoga, or the mobility work in your warmup, observe the sensations of your breath.**

Try to maintain continuous, calm, deep breathing in sync with your movements. For example, inhale with expansive movements (like spreading your arms open), and exhale with contracted movements (like crunching your abs).

Breathwork practice can help with flexibility and mobility by gently encouraging your tissues and joints to relax into unfamiliar ranges of motion. Our body has receptors in joints that reflexively contract muscles at their end range to prevent injury.

So, conscious, slow breathing — telling the body that it's safe to allow more range of motion — is a way to relax and let joints move more freely.

## Breathing to improve exercise technique and recovery

### BETWEEN SETS OF INTENSE EXERCISE

When recovering between intense sets of exercise (such as sprinting), take deep, full inhales and exhales while actively drawing the space between the front of your ribcage and your pelvis together. This will help expand your ribcage more evenly and shift tension out of your lower back.

### Thoracic pump

Breathing more deeply during rest intervals can also improve your recovery by taking advantage of a mechanism called the **thoracic pump**.

In the same way that the negative pressure in your thorax during inhalation causes your lungs to fill with air, that negative pressure also helps to pull venous blood into the vena cava and right side of the heart. This helps to increase how much blood your heart can move per beat.

### CORE WORK

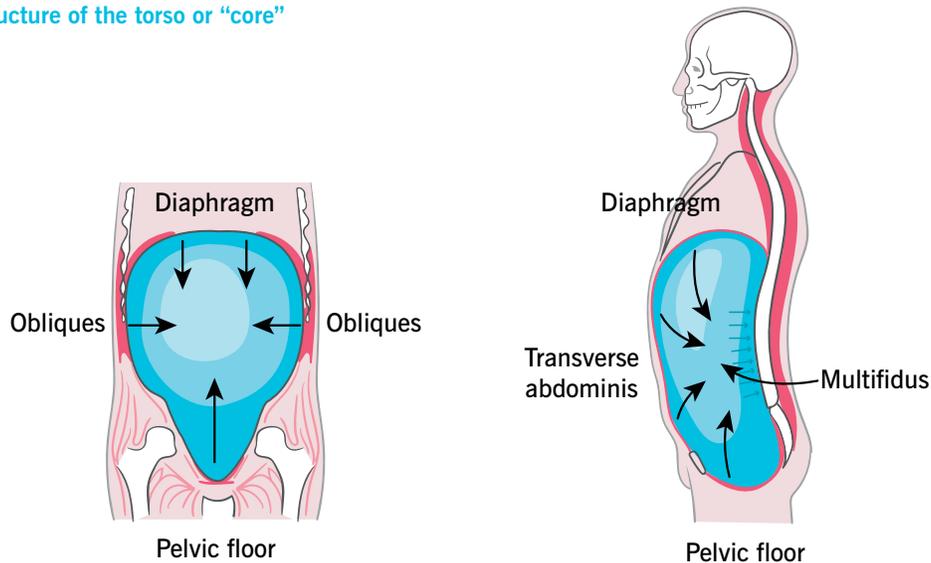
Our “core” is a bit like a 6-sided cube — with the diaphragm at the top — that maintains its movement and stability by elegantly coordinating the stiffness or mobility of core musculature with breathing.

When doing abdominal exercises such as planks, notice how the function of your abdominal muscles changes based on whether you're inhaling or exhaling. You'll notice you can get stronger activation in the sides of your waist when you're close to fully exhaled.

This is because changing the position of your spine, pelvis and ribcage (along with a little help from your abdominal muscles) can help drive exhalation.

This “core” breath will engage a range of muscles, such as your diaphragm, pelvic floor, transverse abdominis, obliques and multifidus.

### The muscular structure of the torso or “core”



If you're a woman who is doing pelvic floor rehab (e.g., after pregnancy), your pelvic physiotherapist can also offer you some specific breathing exercises coordinated with contraction and relaxation of pelvic floor muscles.

## Calm-down breathing to lower anxiety and physiological arousal

### SLOW EXHALE

Often we're told to “take a deep breath” to calm down. But this often leads to huffy inhales, which is the opposite of what we should be doing.

Instead, think: “slowly blow out a big sigh”. Imagine slowly blowing up a balloon or a long row of birthday candles.

1. Exhale slowly and deliberately until all the air is out of your lungs. Pause for a moment or two.
2. Then, consciously relax as much as possible, and let the in-breath happen naturally.

Repeat several times. This will activate the parasympathetic nervous system.

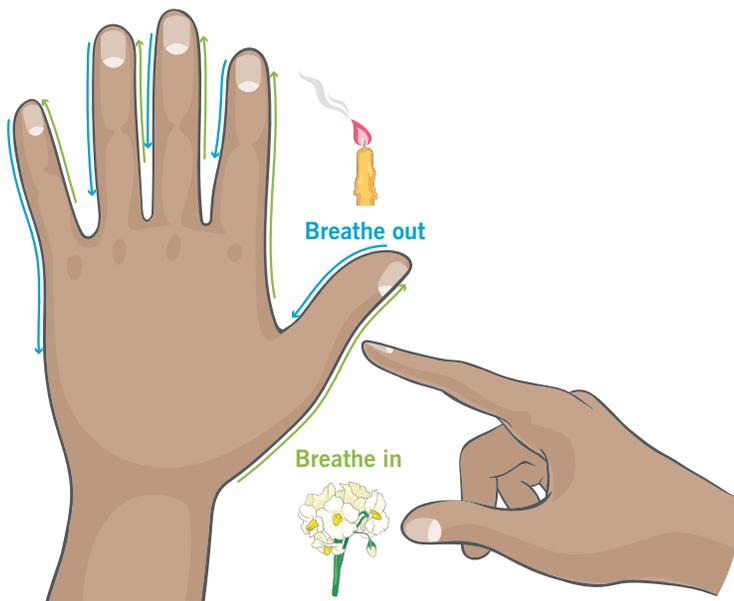
### 5-FINGER BREATHING

This one is great for kids and adults alike as a simple self-calming technique.

Lift up one hand. Using a finger of the opposite hand, slowly trace the outline of your first hand, going up and down the length of the fingers.

**As you go up one finger, use the cue, “Smell a flower.”**

**As you go down the finger, use the cue, “Blow out a candle.”**



- Lift up one hand. Using a finger of the opposite hand, slowly trace the outline of your first hand, going up and down the length of the fingers.
- As you go up one finger, breathe in. Use the cue, “Smell a flower.”
- As you go down the finger, breathe out. Use the cue, “Blow out a candle.”
- By the end of the hand, you’ll have done this five times, and will probably notice a difference in your physiological response.

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### BOX BREATHING

To help calm yourself and prevent “panic breathing” in difficult situations, break the cycle of respiration down into four stages (like the four sides of a square) that are each four seconds long.

1. Take a four-second inhale.
2. Hold for four seconds.
3. Exhale for four seconds.
4. Hold for four seconds.

Repeat.

## Self-experimenting with breathing exercises

### BREATHING AND HEART RATE

If you have an app or gadget that tracks your heart rate, or heart rate variation (HRV), you can explore the link between your breathing and your stress levels.

Try different types of breathing, such as:

- A quick huffy inhale, like a “fear-gasp breath” (as if if someone just jumped out at you and yelled “Boo!”)
- A long, slow exhale, like a contented “Aahhh” sigh as you settle into a warm, comfy couch after a big meal
- Pausing for a few seconds between inhale-exhale or exhale-inhale
- Short inhale + long exhale, or the reverse

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Practice these first in a calm, controlled setting, like your living room while you're feeling relatively relaxed.

Starting in an easy situation can help to develop the ability to self-regulate your stress response under more challenging conditions, such as the traffic jam that you'll be in later on your way to work.

After you've gotten a feel for the way your breathing affects your heart rate or HRV, you can also play with other variables.

For example, you can see what happens when you try to elicit different mental or emotional states.

- You could try to recall a humiliating public speaking incident and see if that thought elevates your heart rate or drops your HRV.
- Or, you could mentally go back to a relaxing happy moment like lying in a hammock on a beach with a cold beverage in your hand, and see if that lowers your heart rate and/or raises your HRV.

With practice, you can get a better awareness of how your breathing and thoughts affect your stress levels, and how you can manage them in order to better self-regulate your stress responses.