

# Deep Breathing

## Breathing practices can calm the nervous system

### Activation of the Parasympathetic Nervous System (PNS):

Deep breathing stimulates the vagus nerve, which plays a key role in activating the PNS, also known as the body's "rest and digest" response, promoting relaxation and reducing stress.

### Reduction of Stress Hormones:

Slow, deep breathing can calm the nervous system and help reduce the production of stress hormones like cortisol and adrenaline. This signals to the body that it's safe to relax, which can decrease the release of these hormones associated with the "fight or flight" response.

### Heart Rate Variability (HRV):

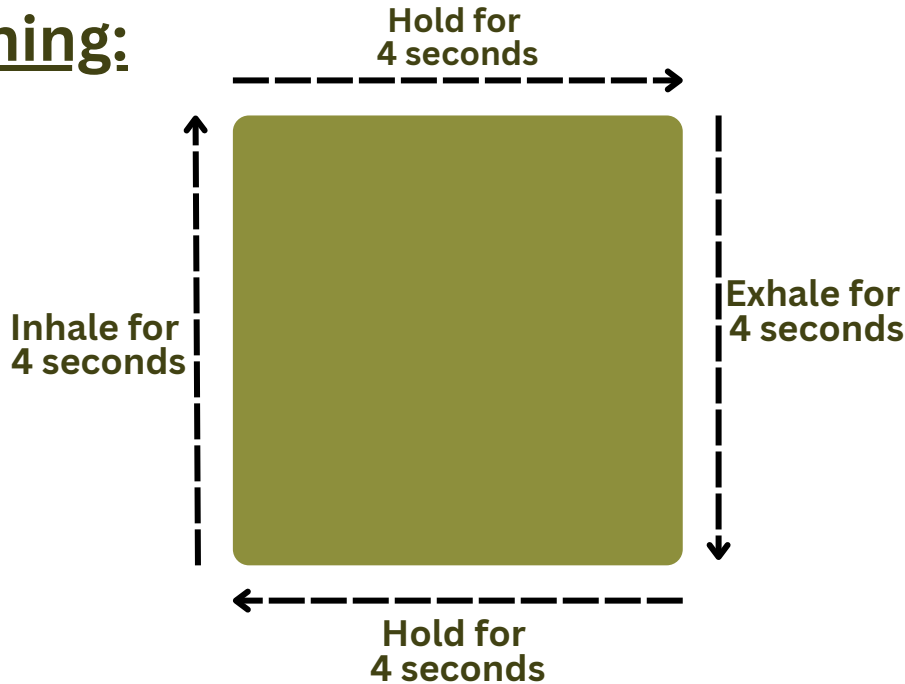
Rhythmic and controlled breathing patterns, can improve heart rate variability. HRV is an indicator of the balance between the sympathetic and parasympathetic nervous systems. Higher HRV is associated with better resilience to stress and improved overall health.

### Mindfulness and Focus

Mindfulness meditation, involve focused attention on the breath. This mindfulness practice can help divert attention away from stressful thoughts or stimuli, calming the mind and reducing the physiological response to stress.

# Deep Breathing Techniques

## Box Breathing:



## 4-7-8 Technique

**Breathe in for  
4 seconds**

**Hold for 7  
seconds**

**Exhale, slowly,  
for  
8 seconds**

## Alternating Nostril Breathing

Use your right thumb to close your right nostril, inhale through the left.



Close your left nostril with your ring finger, release the right, and exhale.



Inhale through the right nostril, then switch and exhale through the left.



Repeat for 5–10 minutes with slow, steady breaths.