



BOX BREATHING

This strategy is suggested in the 14-16 BrainWaves lesson: **Managing stress**

About the strategy

Box breathing (also known as square breathing or four-square breathing) is a simple yet powerful deep breathing technique designed to calm the nervous system, lower physical arousal, and enhance mental focus under pressure. The technique gets its name from the concept of a four-sided box, where each side represents an equal stage of the breath cycle:

1. **Inhale:** Breathe in slowly through your nose for a count of 4.
2. **Hold:** Pause and hold your breath for a count of 4.
3. **Exhale:** Gently exhale all the air through your mouth for a count of 4.
4. **Hold:** Pause and hold your lungs empty for a count of 4.

Repeating this equal 4-4-4-4 rhythm for 1 to 2 minutes (about 4–6 cycles) acts as a portable reset button to help regain self-control during acute moments of panic, anxiety or pressure.

The scientific evidence behind the strategy

The study below showed that practicing just one minute of box breathing or cyclic sighing leads to a rapid reduction in acute anxiety and improves attentional performance in daily life, proving it to be an ideal "just-in-time" tool for young people facing stressful events.

- Riedl, E. M., et al. (2025). *Simply breathing anxiety away? A pilot, just-in-time ecological momentary intervention study of one-minute cyclic sighing versus box breathing as tools for acute anxiety reduction and attention promotion in real life.* Anxiety, Stress, & Coping, pp. 1–15.

This randomized controlled trial found that short, daily sessions significantly reduce physiological arousal and elevate mood, demonstrating that intentional breathing patterns are more effective at shifting autonomic state than passive mindfulness meditation alone.

- Balban, M. Y., et al. (2023). Brief structured respiration practices enhance mood and reduce physiological arousal. *Cell Reports Medicine*, 4(1), 100895.

Further reading

WebMD: Getting Started with Box Breathing: How to Do It, Benefits, and Tips:

<https://www.webmd.com/balance/what-is-box-breathing>

Harvard Health: Try Breathing Exercises:

<https://www.health.harvard.edu/mindscape/for-young-people/what-creates-mental-wellness/try-breathing-exercises>