

# Vagus Nerve Stimulation for Stress Reduction

## **Purpose:**

These brief, research-supported techniques help activate the body's parasympathetic ("rest-and-digest") system. This calms the body and restores oxygen to the brain.

# 1. Cold-Face or Neck Application

Evidence: Studies show that brief cold applied to the lateral (side) neck or the face increases vagal tone and lowers heart rate.

How to do it:

- Use a cool washcloth, gel mask, or ice pack wrapped in a thin towel.
- Apply for 15–30 seconds to the side of the neck or to the face while breathing slowly.
- Repeat 2–3 times as needed.

## 2. Slow, Diaphragmatic Breathing

Evidence: HRV (heart rate variability) studies show that 6 breaths per minute optimizes vagal activation.

How to do it:

- Inhale gently through your nose for 4 seconds.
- Exhale slowly through pursed lips for 6 seconds.
- Continue for 3–5 minutes.

#### 3. Humming or Chanting

*Evidence:* Vocalization stimulates the vagus nerve through vibration in the larynx and palate, improving calm and focus.

How to do it:

- Hum softly on your exhale for 1–2 minutes.
- You can repeat a calming word, short prayer, or vowel sound.

#### **Quick Practice Sequence:**

- 1. Sit upright, shoulders relaxed.
- 2. Take 6 slow breaths (in 4 seconds in and 6 seconds out).
- 3. Apply a cool cloth to your neck for 20 seconds.
- 4. Hum gently for 1 minute.
- 5. Notice the slower heartbeat and softer breathing.

#### References:

Jungmann, et al. DOI: 10.2196/10257; Laborder, et al. DOI: 10.1016/j.neubiorev.2022.104711; Gao, et al. DOI: 10.3389/fnbeh.2020.548856

