



Patrick McKeown: Functional Breathing From Three Dimensions: Biochemical, Biomechanical, and Resonant Frequency



Patrick McKeown is an internationally recognized breathing expert and author. His latest book, *The Oxygen Advantage*, contains techniques to reduce breathlessness, increase oxygen delivery to the brain, improve sleep, and remain focused. Explore how widening your breathwork focus can maximize the life-changing power and potential of the breath.

TOP EMBODIMENT TIP: Focus your attention on breathing. Breathe long, slow, and deep to improve blood flow to the brain and calm the mind, especially in these times.

Three Dimensions: **Biochemical, Biomechanical and Resonant Frequency**

- To enhance breathing function, all three areas should be taken into account:
- **Biochemical** - The focus here is attaining normal Carbon Dioxide pressure in the blood. Carbon Dioxide is a vasodilator, regulator of blood pH, and catalyst for the release of oxygen from the blood into the tissues.
- **Biomechanical** - The breath should cause lateral expansion and contraction of the low ribs. In functional breathing, the diaphragm returns to its resting position on the exhale, stabilizing the spine. This is important for functional movement and injury prevention.
- **Resonant Frequency** - To quantify the effect of stress, we can look at Heart Rate Variability. The heart rate should become faster with each inhale, slower with each exhale. Sympathetic nervous system activation can change this.

How We Breathe: **Why Is Functional Breathing So Important?**

- Breathing dysfunction constricts blood vessels and reduces oxygen delivery throughout the body.
- Breathing too hard and too fast releases unnecessary Carbon Dioxide, causing chronic stress to the body.
- **Conditions marked by air hunger, such as asthma and anxiety, cause hard fast breathing, which can increase anxiety and chronic pain.**

Nasal Breathing: **Use It Or Lose It**

- The more you use your nose to breath, the better it works. Exhaling through the mouth results in a 42% loss of moisture, which contributes to nasal congestion.
- The nose is the airway's first line of defense; it warms and filters the air, and provides resistance to slow the breathing. Air taken in through the nose picks up Nitrous Oxide, a bronchodilator with anti-viral properties.
- **Breathing through the nose improves blood flow to the brain for better sleep, stress reduction, and resilience.**

Resources:

- ❖ **Book:** [The Oxygen Advantage](#)
- ❖ **YouTube:** [Oxygen Advantage](#) and [Buteyko Clinic](#)
- ❖ **Video:** [COVID: How To Breathe While Wearing A Face Mask](#)
- ❖ **Video:** [COVID: Free Breathing Exercises To Improve Respiratory Health](#)



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Leslie Kaminoff, co-author of the bestselling book “Yoga Anatomy” is a yoga educator and internationally recognized specialist with over four decades’ experience in the fields of yoga, breath, anatomy and bodywork. His approach to teaching combines intellectual rigor, spontaneity and humor, and is always evolving.

YogaAnatomy.net is how Kaminoff connects with his students all over the world - and the first ever online yoga studio for advanced studies. His passion is teaching teachers, and YogaAnatomy.net has become the go-to resource for Teacher Trainers planning a YTT, and advanced teachers who want to deepen their knowledge and transform their teaching.

Kaminoff & the entire team at YogaAnatomy.net are thrilled to be sponsoring the Yoga Channel for The Embodiment Conference. To celebrate, they're offering each attendee free access to a Home Workshop Series, where you'll focus on the intersection of embodiment, breath, and your mind. Plus, you're eligible for a \$1,000 USD scholarship towards working directly with Leslie in one of his professional training courses. [Click here](#) for scholarship details and immediate access to the workshop.

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