



What, Why, and How

Unlock the secret to more energy and
a healthier, happier, and longer life



**Conscious
Breathing**



The Oxygen Paradox – Why Less is More

When we are stressed, our breathing increases. But isn't that ok, you may ask, since it means we take in more oxygen? Not exactly. We need the right amount of oxygen—just enough to meet our metabolic demand. While oxygen is essential for efficient energy production, it is also a highly reactive molecule. If the supply is cut off, we die within minutes. **But paradoxically, too much oxygen is toxic and damaging.** It truly is a double-edged sword.

Ever noticed how quickly a sliced apple turns brown? That's oxidation in action—and a glimpse into what too much oxygen can do inside our bodies. A similar oxidative process is constantly occurring inside our bodies. When we wrap food in plastic to protect it, we slow down this decay by limiting its exposure to oxygen.

One of the great scientific discoveries is that inflammation—a condition caused by an overload of reactive oxygen species—is linked to nearly every disease and symptom known to man. When oxidation happens faster than the body can repair the damage, inflammation increases, and aging accelerates.



Why Oxygen Is Useless Without CO₂

Oxygen is vital for efficient energy production. With it, our cells extract up to 16 times more energy from food than without. No oxygen means limited energy—and without energy, life cannot continue.

But oxygen doesn't work alone. While oxygen plays a starring role in cellular energy production, it cannot function effectively without carbon dioxide. CO₂ isn't just a waste gas—it is a critical partner in the body's energy production and healing processes. Without sufficient CO₂, oxygen cannot be properly delivered or utilized. Here's why:

1. Stimulates Breathing

CO₂ regulates breathing by signaling the brain when to inhale. Low CO₂ tolerance often leads to rapid, shallow breathing—commonly seen in stress and anxiety. CO₂ Therapy promotes slower, more relaxed, and efficient breathing.

2. Keeps Airways Open

Adequate CO₂ levels relax the smooth muscles around the respiratory tract, helping to keep airways open. This supports easier breathing and better oxygen exchange in the lungs.

3. Opens Blood Vessels

CO₂ induces vasodilation—widening of the blood vessels—which improves circulation and helps deliver oxygen-rich blood more effectively to tissues and organs.

4. Facilitates Oxygen Offloading

Hemoglobin holds onto oxygen in the blood, but it's CO₂ that tells it when and where to release that oxygen. Without enough CO₂, oxygen remains “stuck” to hemoglobin and can't reach your cells. This is called the Bohr effect.

5. Protects Mitochondria

CO₂ is a powerful antioxidant. It helps protect the mitochondria—your cells' power generators—from oxidative damage caused by reactive oxygen species.



What Is CO₂ Therapy? Why You Need It

What is CO₂ Therapy?

CO₂ Therapy focuses on restoring and maintaining the optimal balance between oxygen and carbon dioxide in the body. While often misunderstood as merely a waste product, CO₂ plays a vital role in key physiological functions such as oxygen delivery, energy metabolism, and pH regulation. By improving CO₂ tolerance, this therapy supports reduced stress, better energy efficiency, improved sleep, and enhanced overall health and performance.

Why You Need CO₂ Therapy

A healthy balance between oxygen intake and CO₂ tolerance is critical for efficient bodily function. CO₂ is indispensable for enabling oxygen to be properly released to tissues, thereby supporting energy production and cellular health. When this balance is disrupted, the body's ability to function optimally declines.

Modern habits like chronic over-breathing and sedentary behavior often lead to lowered CO₂ levels, impairing the body's energy systems. This can manifest as fatigue, poor recovery, anxiety, sleep disturbances, diminished athletic capacity, and cardiovascular strain. CO₂ Therapy helps to re-establish ideal CO₂ levels, promoting greater resilience and physiological efficiency. In other words: **Calmer, Stronger, Healthier.**



Important Bodily Functions of CO₂

1. Circulatory and Vascular Health

- Regulates blood flow to the brain
- Stimulates nitric oxide production, widening blood vessels
- Stimulates the formation of new blood vessels (angiogenesis)

2. Metabolic and Cellular Health

- Enhances mitochondrial growth
- Regulates cholesterol and vitamin D
- Protects against oxidative stress
- Promotes bone healing
- Stimulates skin collagen production

3. Respiratory and Oxygen Delivery

- Regulates breathing
- Facilitates oxygen release from hemoglobin (Bohr effect)

4. Nervous System and Inflammation Control

- Activates the vagus nerve
- Reduces pain
- Lowers excess inflammatory markers
- Reduces stress hormones like adrenaline and cortisol



CO₂ Therapy is Backed by Science

Traumatized war veterans were in a constant fight-or-flight, and nothing worked. But breathing did. The easiest way to calm down is simply to extend the exhale.

- Dr. Emma Seppälä, Science Director, Stanford University

CO₂ offers the most potent, safest, and practical medical treatments ever discovered.

- Dr. Lewis S. Coleman, MD, Anesthesiologist

The greatest indicator of life span isn't genetics, diet, or exercise. It is lung capacity.

- James Nestor, Author of *Breath: The New Science of a Lost Art*

The results of the CarboHaler CO₂ inhaler are dramatic. No other oxygen therapy oxygenates the muscles as effectively.

- Dr. Steven J. Saltzman, MD, Anesthesiologist

Three weeks of CO₂ exposure healed 90% of fractured bones. In the control, only 20% healed.

- T. Oda et al., PMID: 31635930

During two weeks, mice were exposed to CO₂ for a total of 40 minutes. Tumor cell apoptosis was induced, and tumor growth was slowed down by 48%.

- Y. Onishi et al., PMCID: PMC3499556

Four weeks of CO₂ baths decreased symptoms by 70% in peripheral arterial disease.

- S. Makita et al., DOI: 10.1007/s00547-006-2063-0

Inhaling 5% CO₂ for seven minutes increased blood flow to the brain by 54.5%.

- X. Feng et al., PMCID: PMC3049465

Low oxygen/high CO₂ increased sprint capacity by 64%, while only 6% in the control.

- C. Fornasier-Chanty et al., PMID: 29400616

Discover More at the CO₂ Academy

Whether you're an athlete aiming to improve endurance, someone with chronic health concerns, or simply seeking more energy in daily life, CO₂ Therapy offers a natural and effective solution. Optimizing CO₂ levels can lead to enhanced oxygenation, improved energy production, and better overall health.

CO₂ Academy Articles

- *How CO₂ Baths Improve Warm-Up and Athletic Performance*
- *CO₂ Therapy: A Breakthrough in Bone Healing and Density*
- *How Diaphragmatic Breathing and CO₂ Cleanse Your Blood*
- *CO₂: Nature's Hidden Antibacterial Power*
- *Stop Overbreathing! How CO₂, Stress, and Performance Are Connected*
- *Vitamin D, CO₂, and Fibromyalgia: The Unexpected Missing Link*

Ready to Try CO₂ Therapy?

Start your journey at:
www.consciousbreathing.com



**"CO₂ Therapy can
transform your health
and well-being."**

– Anders Olsson
Founder Conscious Breathing Institute