

Hyperbaric Oxygen

The benefits of increased oxygenation delivered through Hyperbaric pressure.

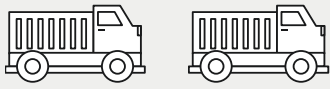
Improves Mitochondrial Function

Proper diet (good fats) + increased oxygen absorption = increased ATP (energy/metabolism of cells)

*Mitochondria is often referred to as the powerhouse of the cell and they consume 85-90% of the oxygen we breathe.

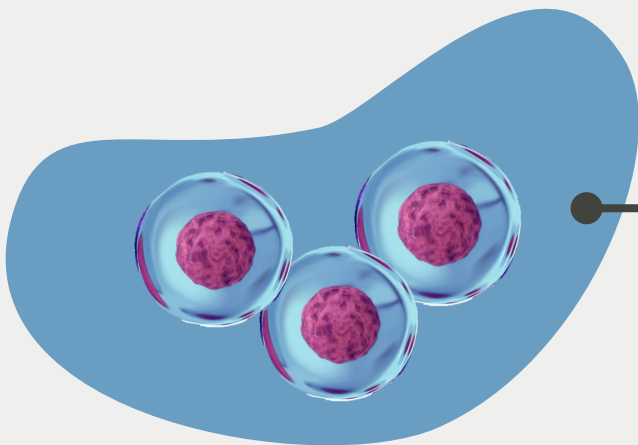


Mitochondria before



Mitochondria after:

More, better quality & more efficient



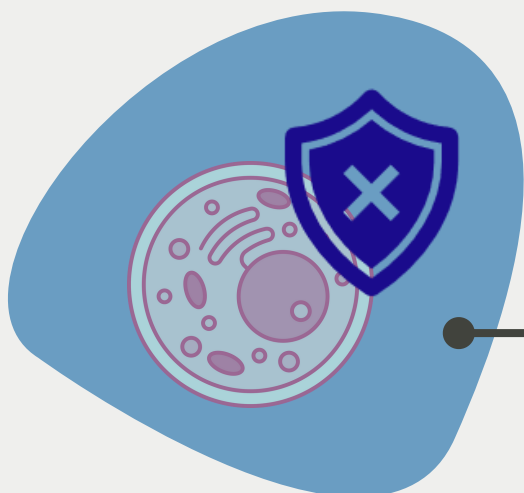
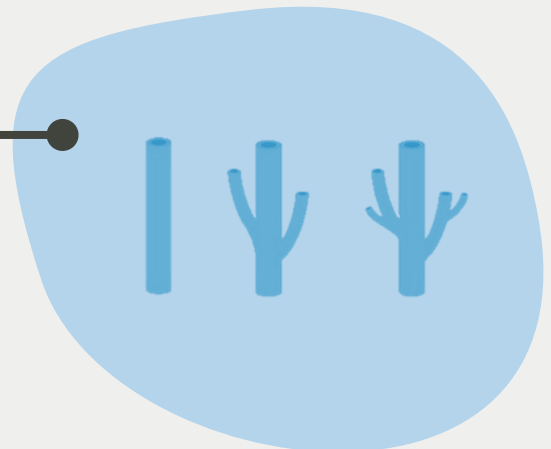
Hyperoxygenation

- Reduces inflammation
- Displaces toxic nitrogen
- Boosts stem cell production
- Increases collagen synthesis

Angiogenesis & Neurogenesis

Formation of new blood vessels & neurons in the brain

- Increases blood supply
- Speeds wound healing
- Improves cognition



Cellular Protection & Repair

- Reduces cell damage (lipid peroxidation)
- Increases tolerance to oxidation (oxidation can damage DNA and proteins)
- Kills harmful microbes: bacteria & viruses (Leukocyte oxidative killing)
- Inhibits toxins



Hyperbaric Oxygen

How it works

It's all about pressure!

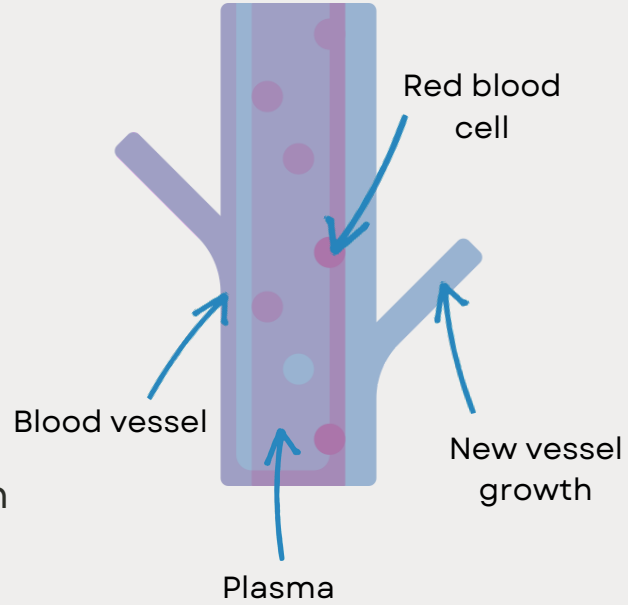
Red blood cells are your body's oxygen carrier, but they have a maximum carrying load.

As pressure increase it has a couple of effects on gases

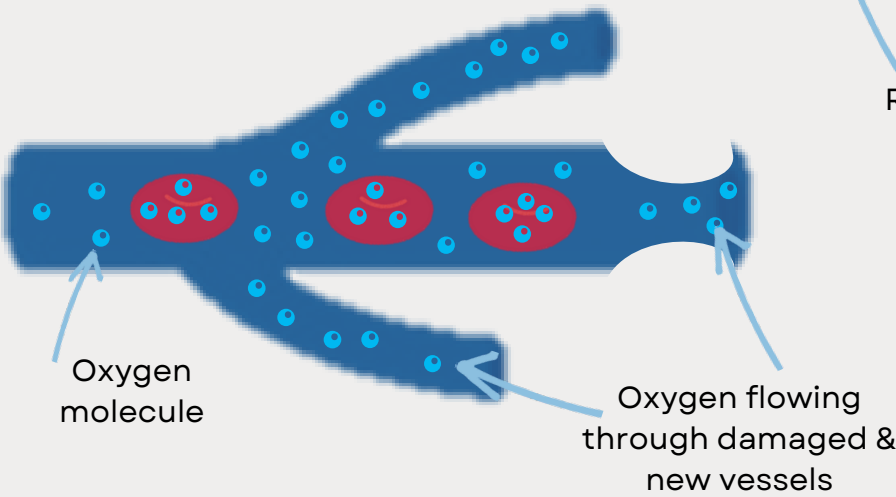
- Volume decreases
- Solubility increases

What does this all mean?

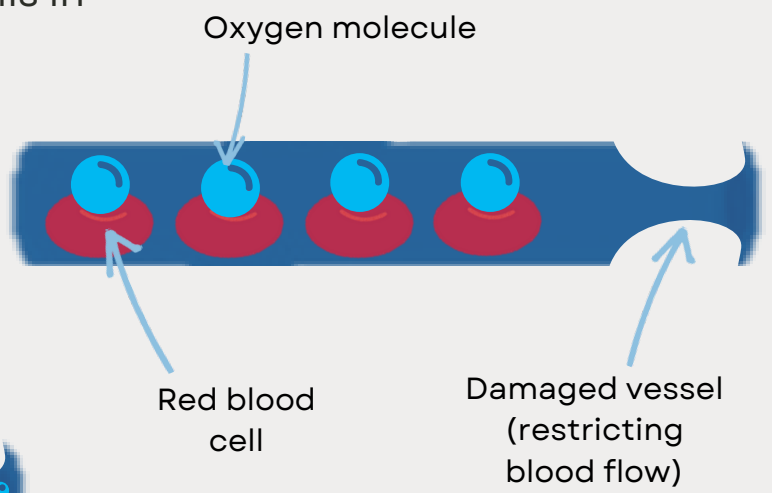
1. Your body can absorb oxygen through your plasma as both volume decreases and solubility increases
2. Allows your body to use more of the oxygen you inhale (a lot more!)
3. Oxygen infused plasma can flow through damaged blood vessels (even where red blood cells are restricted)
4. Oxygen can travel up to 4 times greater distance reaching cells in need



With Hyperbaric



Without Hyperbaric



Cellular "Stress"

Simply put, cells react to all external shifts from homeostatis, both positive and negative.

Pressure changes result in the activation of pathways that promote survival and elicit programmed cell death that eliminate damaged cells.



Taking advantage of all this extra oxygen

Cells grab all the extra oxygen when releasing from pressure

- Oxygen releases over a period of 8 hrs

Why is oxygen so important?

1. Cells need oxygen to harness stored energy
2. Your brain uses 20% of your oxygen supply
3. You can go weeks without food and days without water, but only minutes without oxygen

