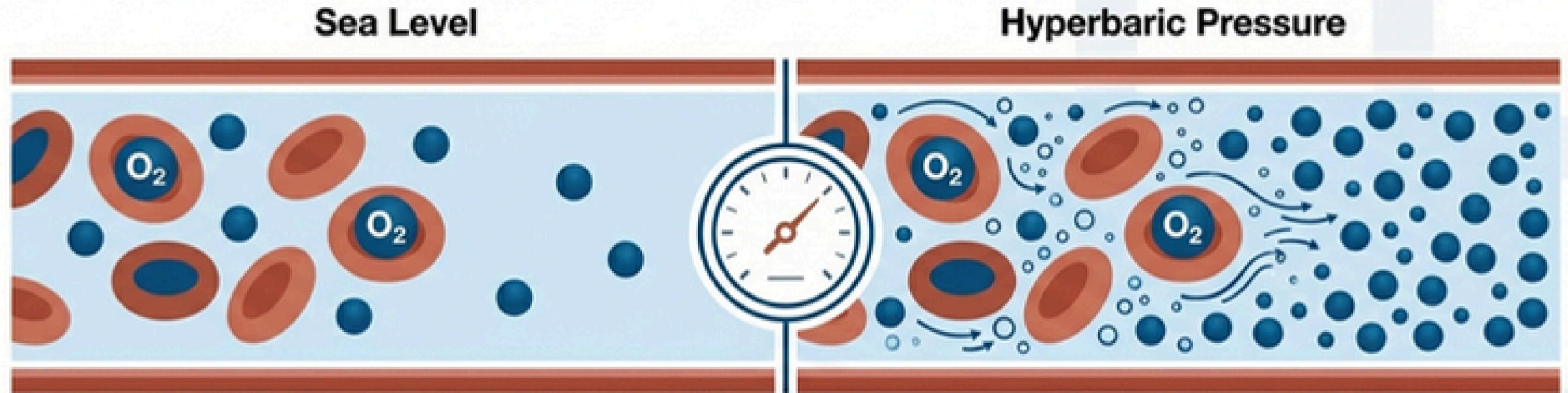


**A comprehensive visual guide to**  
**( HBOT) HYPERBARIC OXYGEN THERAPY**

# The Physics of Healing: Henry's Law



The more pressure put on a gas... the more of that gas that goes from a gaseous form to a liquid form.

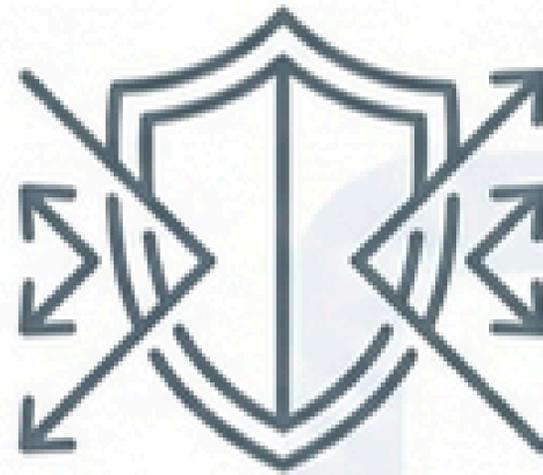
Hyperbaric oxygen therapy (HBOT) utilizes increased atmospheric pressure to dissolve high concentrations of oxygen directly into the blood plasma, far exceeding the capacity of red blood cells alone.

*By reaching this state of oxygen supersaturation, the treatment serves as a powerful catalyst for neurological repair, the mobilization of stem cells, and the reversal of biological hallmarks of aging.*

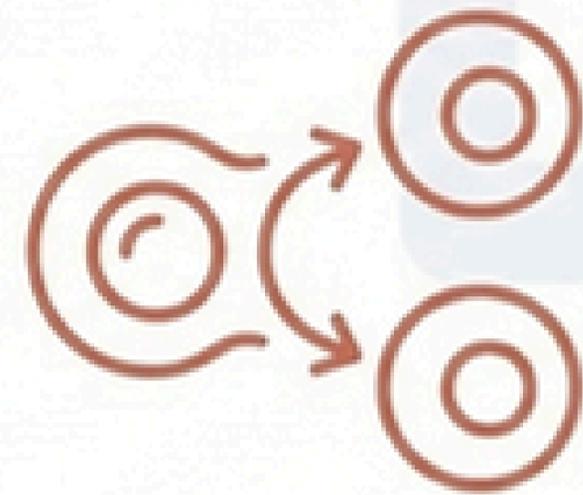
# The Three Pillars of Physiological Change



**Oxygenation:**  
Drives 1200% or more  
oxygen into the  
plasma at 2.4 ATA.



**Inflammation:** Decreases  
inflammation directly via...  
reducing the production of  
pro-inflammatory cytokines, and  
increasing the production of  
anti-inflammatory cytokines.



**Stem Cells:**  
Hyperbaric air alone  
mobilizes stem cells...  
nearly 200% or 2 fold.

*“The treatment serves as a powerful catalyst for neurological repair, the mobilization of stem cells, and the reversal of biological hallmarks of aging.”*

# Oxygenating the Brain

## Mechanisms of Action



### Enhancing Delivery

Compensate for reduced blood flow or oxygen supply to the brain... promote the healing and regeneration of damaged brain tissue.

### Neuroprotection

Reduce oxidative stress, suppress inflammation, and promote the production of growth factors that support brain cell survival and repair.



# Evidence-Based Neurological Benefits

Stroke



Traumatic brain injury (TBI)



Cerebral palsy



Multiple sclerosis



Autism spectrum disorders



Alzheimer's disease



“A study published in the journal Neurology found that HBOT significantly improved cognitive function and quality of life in patients with chronic stroke.”

”



# New Frontiers in Mental Health

- Depression
- Anxiety disorders
- PTSD
- OCD
- ADHD

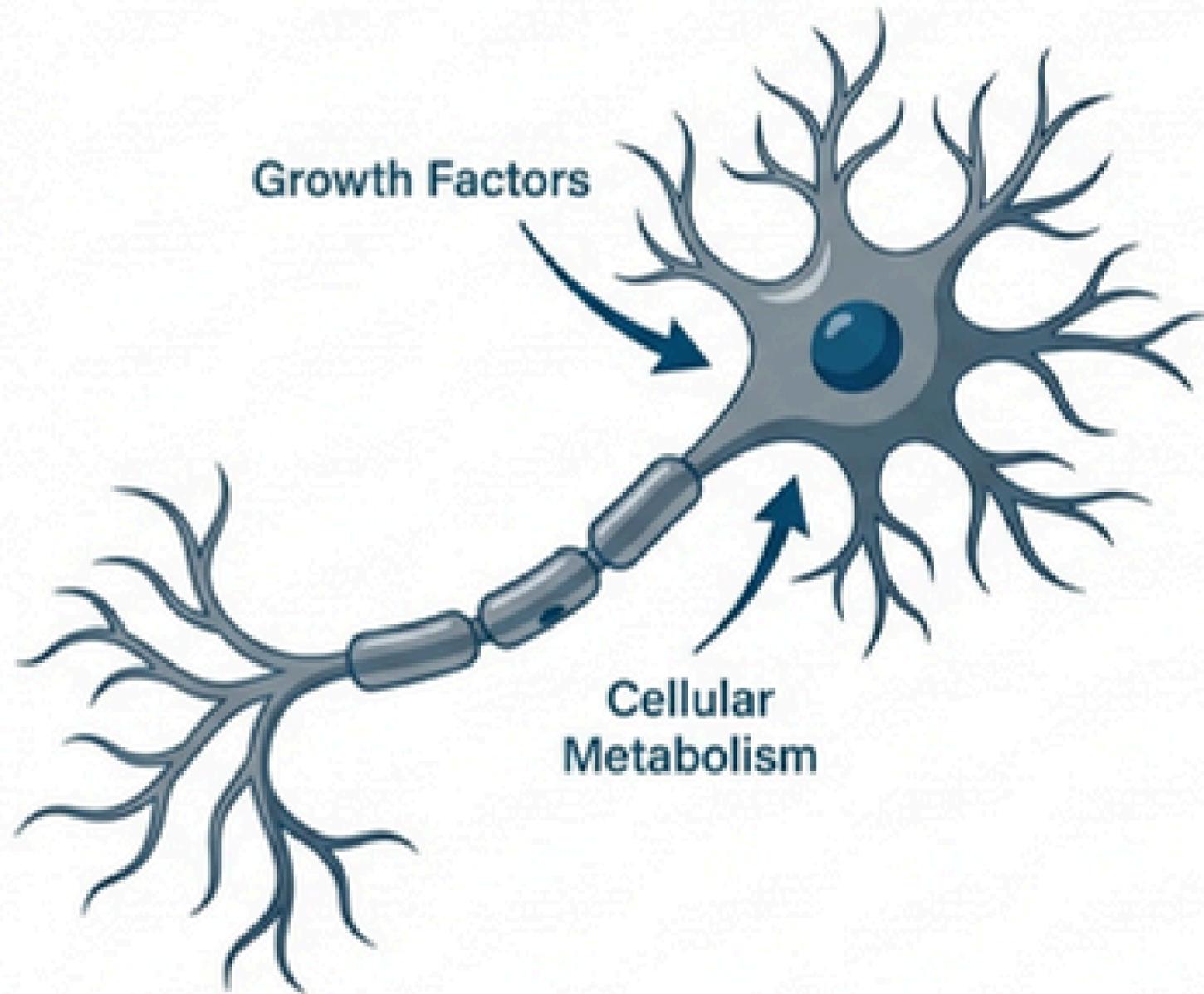
## Core Insight

*HBOT is much more effective when combined with an integrative approach that includes comprehensive psychiatric care and an emphasis on dietary and lifestyle changes.*

“A systematic review published in the *Journal of Affective Disorders* found that HBOT was associated with significant improvements in depressive symptoms.”



# Alzheimer's & Dementia



The increased oxygen supply enhances cellular metabolism and promotes the release of growth factors, which can stimulate the repair and regeneration of brain cells.

## Clinical Outcomes:

Reduced brain atrophy and improved cognitive performance in patients with early-stage Alzheimer's.



Titrate from mild pressures

# Breaking the Chains of Pain & Addiction

## Fibromyalgia & TBI

2 out of 5 patients in the HBOT group showed such significant improvement that they no longer met the criteria for fibromyalgia.



## Opiate Addiction

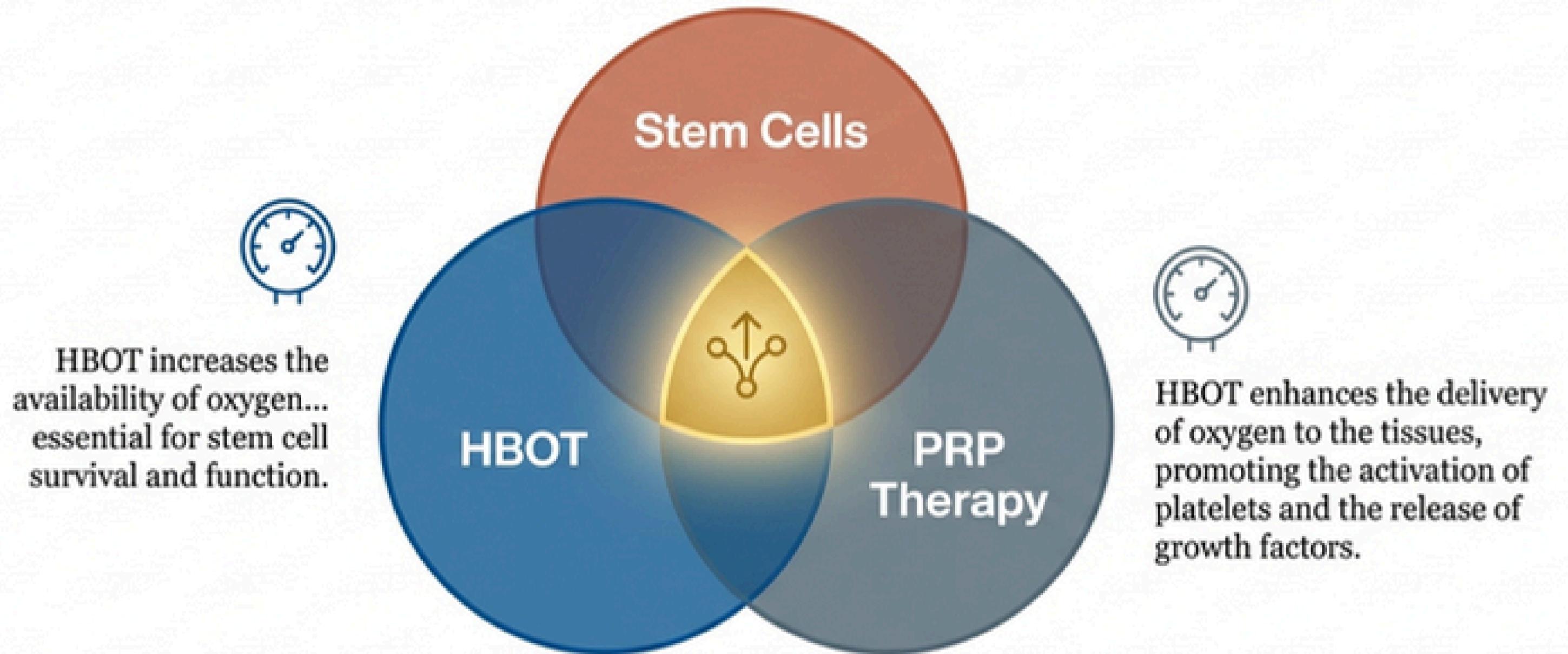
HBOT reduced withdrawal symptoms and cravings... and crumms.. improved cognitive function and reduced anxiety in individuals undergoing opiate withdrawal.



*“Address the root cause... unlike traditional drug treatments that mainly manage symptoms.”*



# Regenerative Medicine Synergy



**Accelerates the healing process and improves the outcomes.**

# Plastic Surgery & Wound Healing

## 50% FASTER

*Healing time improvements of up to 50% when HBOT is used post-operatively.*



1. Collagen: Stimulate the production of collagen, leading to improved wound healing and scar formation.



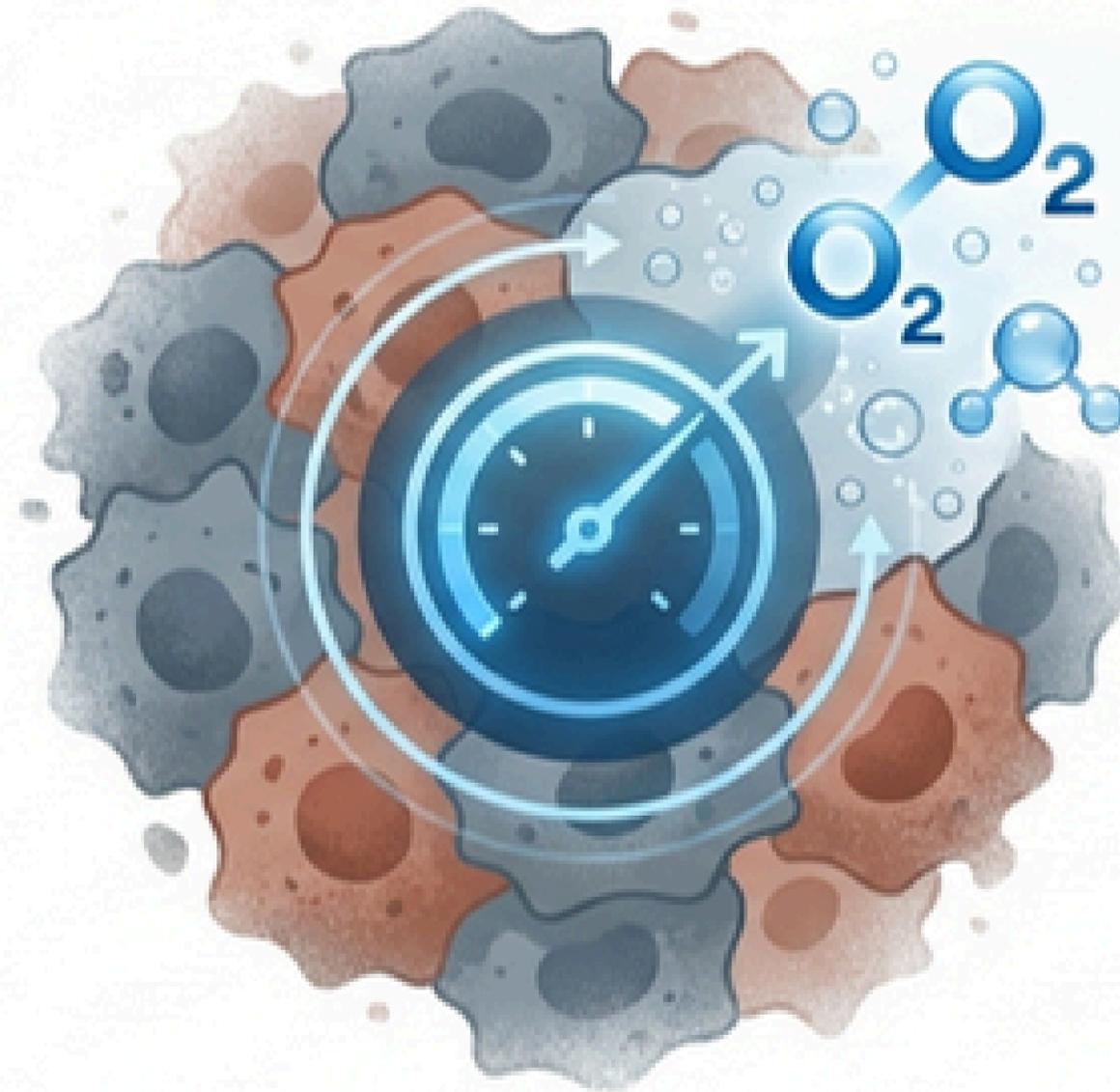
2. The 3 Phases: Enhances Inflammation, Proliferation, and Remodeling.



3. Angiogenesis: Promotes the formation of new blood vessels.

# The Anti-Aging Protocol: Senescent Cells

 **Definition:**  
Senescent cells...  
“Zombie cells”...  
accumulate in our  
bodies as we age and  
contribute to various  
age-related diseases.



 **The Solution:**  
HBOT can decrease  
the number of  
senescent cells in  
the body.



Telomeres: Reversal of biological hallmarks of aging such as the shortening of telomeres.



# Lyme Disease & Bacterial Disruption



## Mechanism:

Lyme is a facultative anaerobe meaning it does not like high oxygen environments.



## Protocol Insight:

It's often prudent to start at mild pressures and then titrate them deeper... to kill the lyme organism directly.



## Synergy:

Enhanced Antibiotic Effectiveness... addressing biofilms.

# Long Covid Update

## The Problem

Persistent inflammation in various body systems.



## The Solution



Improved Oxygenation



Reduced Inflammation



Enhanced Immune Function

## Clinical Outcome

*Significant improvements in **fatigue**, **cognitive function**, and **quality of life** in long COVID patients.*

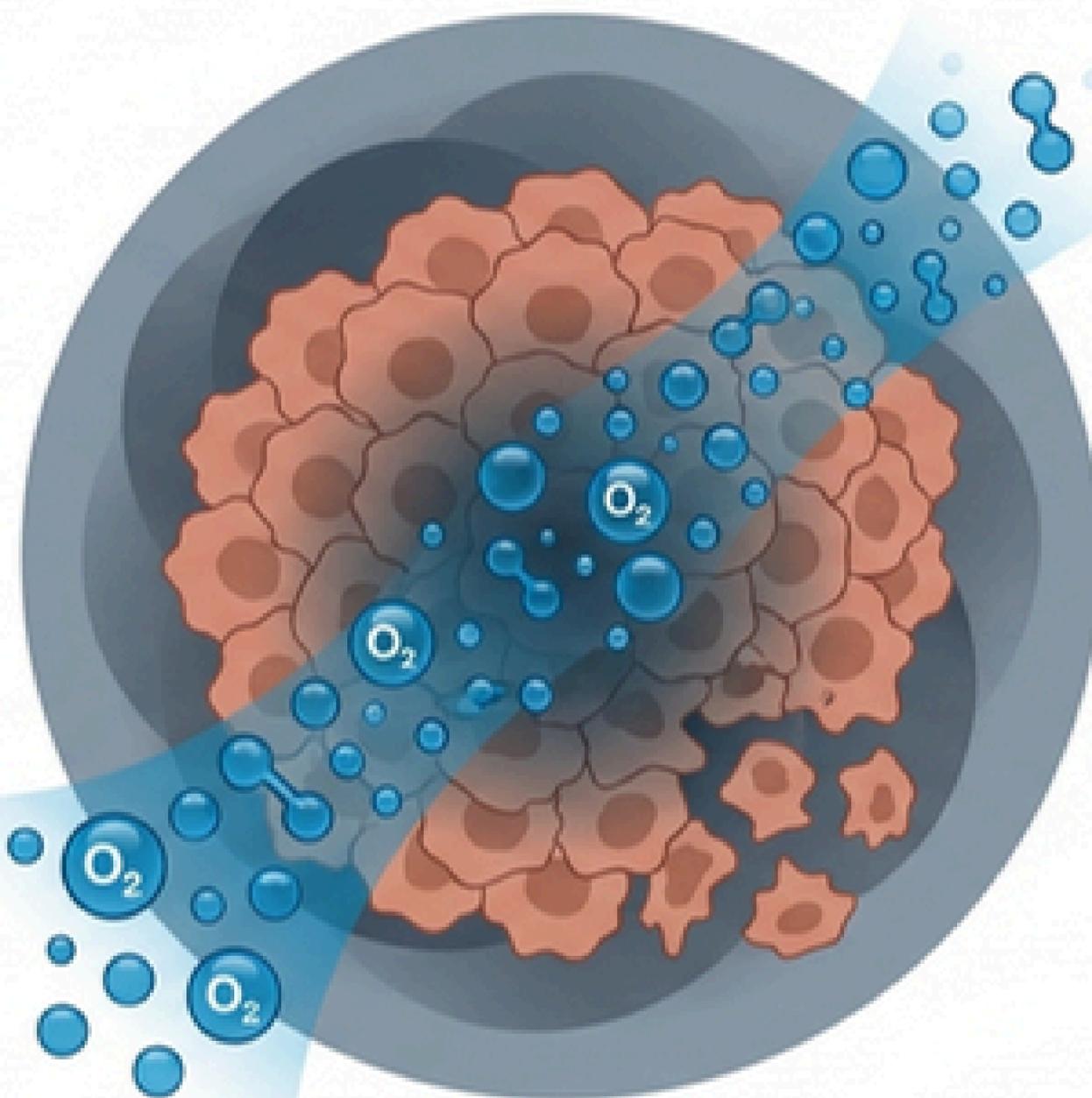
# Enhancing Cancer Care



**The Target:** The hypoxic (low oxygen) microenvironment within tumors... can promote tumor growth.



**Radio-Sensitization:** Oxygenation can enhance the effectiveness of radiation therapy.



**Immunotherapy:** Increases the production and activation of T cells, allowing them to better target and destroy cancer cells.



# Eye Health & Vision Preservation



- Retinal artery occlusion
- Central retinal vein occlusion
- Diabetic retinopathy
- Macular degeneration



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*Promote the regeneration of damaged retinal cells.*

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# Athletic Endurance & Performance



**VO<sub>2</sub> Max:** Enhance your VO<sub>2</sub> max... take in more oxygen and utilize it more efficiently.



**Cardiac Function:** Increase LVEF... improves the heart's ability to deliver oxygenated blood.



**Recovery:** Stimulates the release of growth factors and stem cells... aid in tissue repair.



2.0+ ATA

# The Clinical Protocol: Finding the “Goldilocks Zone”

PRECISION MEDICAL EDITORIAL

**Neurologic  
Depth:** The brain  
is more sensitive  
sensitive to oxygen  
and pressure.



**Systemic  
Depth:** you'll see  
more blood flow...  
systemically.

*More pressure and more  
oxygen are NOT always better.*

# Types of Hyperbaric Chambers



**Multiplace:** Accommodate multiple patients... typically found in clinical or hospital settings.



**Monoplace:** Single person chamber... allows a patient to lie down.

*Mild/Portable: Pressures between 1.3 and 1.5 atmospheres... ideal for home use.*



# Safety & Contraindications



## Safety Record

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Generally considered safe when performed under the supervision of trained medical professionals.



## Contraindications

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- Untreated pneumothorax (collapsed lung)...
- Uncontrolled seizures...
- Pregnancy.

## Practical Tip: Valsalva Maneuver

To clear ears... pinch your nose shut and gently blow air out.

