1. What Happens in the First Minutes of a TBI

- **Oxygen drops** inside brain cells (hypoxia)
- **Mitochondria shut down**, producing massive oxidative stress
- **Free radicals spike**, damaging membranes and DNA
- **Intracellular glutathione (GSH)** — the key antioxidant — **is instantly depleted**

This sets off a self-perpetuating cycle of **inflammation, swelling, and neuronal death** that continues for hours and days after impact.

---

2. ProImmune's Mechanism — Intracellular Protection

ProImmune – Immune Formulation 200 works at the *root cause* of cellular injury by enabling **cells to immediately synthesize glutathione (GSH) inside the cell.**

That means:

- Neutralizes oxidative radicals as they form
- Stabilizes mitochondria before they collapse
- Restores intracellular oxygen handling naturally
- Stops lipid peroxidation and inflammatory signaling at the molecular level
- Activates Nrf2 Gene to trigger cells to replenish glutathione immediately at site of traumatic incidence

In short, it prevents secondary brain injury at the biochemical origin — the oxidative cascade.

---

3. HBOT's Mechanism — Oxygenation from Outside

Hyperbaric Oxygen Therapy (HBOT) increases *extracellular oxygen availability* by delivering oxygen under pressure, which dissolves more O_2 into plasma and can reach hypoxic tissues.

This helps:

- Reduce brain swelling and hypoxia
- Support tissue repair and angiogenesis
- Enhance mitochondrial ATP production

However, **HBOT does not correct intracellular antioxidant depletion (glutathione loss)** — so while it improves oxygen delivery, it can actually increase oxidative stress if glutathione levels remain low.

---

4. Comparison at Onset of TBI

Action	ProImmune (IF200)	HBOT
Timing	Immediate oral or IV dosing can begin within minutes	Requires transport and chamber setup
Mechanism	Restores intracellular glutathione and halts oxidative stress	Increases tissue oxygen saturation
Primary Benefit	Stops oxidative damage *from inside the cell*	Improves oxygenation *from outside the cell*

Action	ProImmune (IF200)	HBOT
Limitation	Needs intracellular synthesis (minutes)	Does not address glutathione depletion
Ideal Use	Acute antioxidant defense and stabilization	Secondary recovery and tissue regeneration

---

5. Optimal Strategy

The most protective strategy appears to be **administering ProImmune immediately**, *followed by HBOT as soon as practical*.

- **ProImmune first** halts the oxidative cascade and stabilizes cell membranes.
- **HBOT second** then safely floods the tissue with oxygen once the antioxidant defenses are restored — preventing oxygen toxicity and amplifying cellular recovery.

In essence:

ProImmune prepares the cells to handle oxygen.

HBOT supplies the oxygen for deeper healing.

Summary

- **ProImmune at onset:** Stops oxidative destruction by restoring intracellular glutathione and cellular oxygen balance.
- **HBOT later:** Enhances perfusion and tissue recovery once antioxidant defenses are reestablished.

If you can only do one immediately at the point of injury — ProImmune offers the faster intracellular protection.

If you can do both sequentially — you create a synergistic, dual-protection model that addresses both oxidative stress and oxygen deficiency.

TheBestImmuneSupport.com ~ Distributor of ProImmune Immune Formulation 200 ~ The Most Effective All Natural Glutathione Replenishment in The World ~ A Scientific Breakthrough by Dr. Albert B. Crum, M.D., DSc,(Hon), M.S.

Contact: info@TheBestImmuneSupport.com ~ Instagram: Best Immune Support

Cell or Text: 845-206-8104