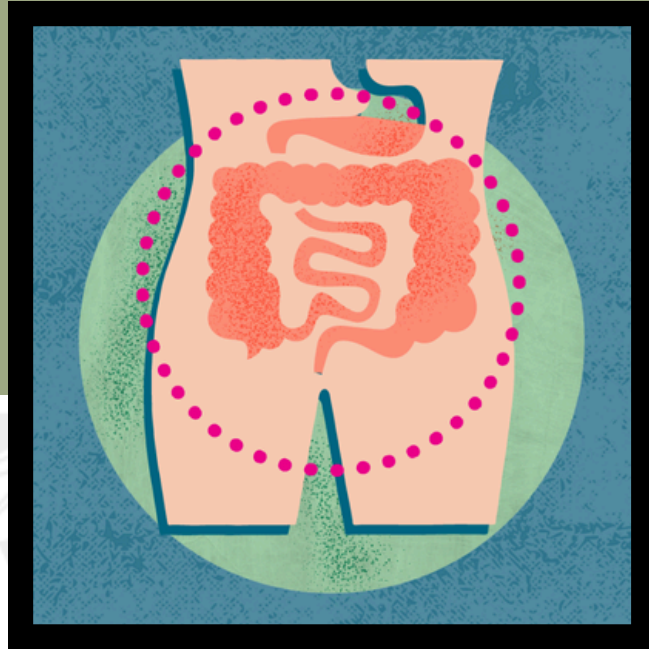


THE NORTHWEST WELLBEING HUB



HYPERBARIC OXYGEN THERAPY **CROHN'S DISEASE**

ULCERATIVE COLITIS (UC)

KEY POINTS

- Reduction of Inflammation
- Promoting Wound Healing
- Reduction of Tissue Hypoxia
- Stimulation of Immune Response
- Reduction of Oxidative Stress
- Angiogenesis (Formation of New Blood Vessels)

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Hyperbaric Oxygen Therapy (HBOT) is also being studied as a potential treatment for inflammatory bowel diseases (IBD) like Crohn's disease and ulcerative colitis (UC), which cause chronic inflammation in the digestive tract. Here's how HBOT might help in these conditions:

1. Reduction of Inflammation

- **Crohn's Disease and Ulcerative Colitis:** Both conditions involve chronic inflammation of the gastrointestinal tract, leading to symptoms like abdominal pain, diarrhea, and bleeding. HBOT helps reduce inflammation by increasing the amount of oxygen delivered to the tissues, promoting anti-inflammatory effects. This can potentially reduce swelling, tissue damage, and pain.

2. Promoting Wound Healing

- **Crohn's:** In severe cases of Crohn's disease, patients may develop fistulas (abnormal connections between organs) or ulcers in the intestines. HBOT stimulates the healing of these difficult-to-treat wounds by delivering more oxygen to hypoxic (low oxygen) tissues, enhancing cellular repair processes.
- **Ulcerative Colitis:** Similarly, HBOT may help heal ulcerations in the colon that occur due to the chronic inflammation in UC, promoting mucosal healing and reducing the risk of complications like perforations.

3. Reduction of Tissue Hypoxia (Low Oxygen Levels)

- **Crohn's and Ulcerative Colitis:** Inflammation in the gut leads to reduced blood flow and oxygen levels in affected tissues, which exacerbates the damage. HBOT works by increasing the amount of oxygen in the bloodstream, which helps restore oxygen levels in these inflamed or damaged areas. This can help stop the progression of the disease and improve tissue recovery.

4. Stimulation of Immune Response

- **Both Conditions:** HBOT has immunomodulatory effects, meaning it can help regulate the immune response. In Crohn's and ulcerative colitis, the immune system is overactive, attacking the gastrointestinal lining. By altering immune cell activity, HBOT may reduce inappropriate immune responses that drive inflammation and tissue damage.

5. Reduction of Oxidative Stress

- **Crohn's Disease and Ulcerative Colitis:** Oxidative stress, caused by an imbalance between free radicals and antioxidants, contributes to tissue damage in IBD. HBOT can reduce oxidative stress by increasing oxygen levels and enhancing the body's natural antioxidant defenses, protecting the gastrointestinal lining from further damage.

6. Angiogenesis (Formation of New Blood Vessels)

- **Both Conditions:** HBOT promotes the formation of new blood vessels (angiogenesis), which improves blood flow to damaged areas of the intestines. This can accelerate healing and reduce the severity of symptoms by improving the overall health of the gastrointestinal tract.

Research Findings:

- **Crohn's Disease:** Studies suggest that HBOT may be particularly helpful for patients with perianal Crohn's disease, which often leads to severe fistulas. HBOT has shown success in closing fistulas and improving wound healing in these cases.
- **Ulcerative Colitis:** Research on HBOT for UC is more limited but has shown promising results in reducing inflammation and promoting mucosal healing. Some studies have reported a reduction in symptoms and the ability to avoid surgery in severe cases of UC treated with HBOT.

Key Benefits Observed:

- Faster healing of intestinal ulcers and fistulas
- Reduced inflammation and oxidative stress in the gut
- Improved quality of life, with fewer flare-ups and symptoms
- Potential to reduce reliance on corticosteroids and other immunosuppressants