

HYPERBARIC OXYGEN THERAPY

COVID-19 & HYPERBARICS & HYPERBARICS

This virus has created an unprecedented challenge for our healthcare system, has overrun our hospitals and has caused an alarmingly high mortality rate within critical care facilities. As Science is catching up to this novel virus, early clinical reports and anatomical findings show progressive hypoxemia as the main cause of deterioration in patients with covid-19. As hypoxemia progresses, "standard therapy cannot penetrate the diffusion barriers in the lungs because they are limited by ambient pressure." (2) Preliminary evidence is showing HBOT is not limited by these barriers and may improve these patients' conditions, especially if intervention occurs at early stages.



- √ Rapid Relief of Hypoxic Symptoms (1)
- ✓ Decreased Chest Pain (1)
- ✓ Decreased Dyspnea (difficulty breathing) (1)
- ✓ General Condition Reversal (1)
- √ Improves Liver Function and Myocardial Injury (1)
- √ Improved Lung Pathology (1)
- ✓ Gradual Improvement of Arterial Blood Gas (1)
- ✓ Increases blood oxygen saturation (3)
- √ Shown to be safe during mechanical ventilation (4)

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If we extrapolate these observations to the COVID-19 situation, an early intervention before the need for mechanical ventilation could be of extraordinary utility for saving lives. In this regard, hyperbaric oxygen therapy (HBOT) that consists of exposure to 100% oxygen under increased atmospheric pressure up to 2.4 atm could be a great resource to improve the outcome from the infection when it is administered at early stages as soon as a reduction of arterial oxygen concentration is detected. (3)

Although these findings are promising, more clinical research is needed.

STUDY: HBOT FOR COVID-19

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- 3. Antonio De Maioand Lawrence E. Hightower. COVID-19, acute respiratory distress syndrome (ARDS), and hyperbaric oxygen therapy (HBOT): what is the link? Cell Stress Chaperones. 2020 May 18: 1-4. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7232923/#CR31
- 4.Jacques Bessereau, Jérôme Aboab, Thomas Hullin, Anne Huon-Bessereau, Jean-Luc Bourgeois, Pierre-Marie Brun, Sylvie Chevret, Djillali Annane. Safety of Hyperbaric Oxygen Therapy in Mechanically Ventilated Patients. 2017;68(1):46-51. https://pubmed.ncbi.nlm.nih.gov/28357836/

