

Hyperbaric oxygen therapy or pressurized air?

The difference between hyperbaric oxygen therapy, during which we breathe pure oxygen while lying in a pressurized chamber, and therapy with pressurized air, is mainly that the first one is beneficial and the latter can have a harmful effect.

Michelle R. Reillo, R.N., Ph.D. writes that “Hyperbaric Oxygen Therapy, HBOT, is a safe and effective adjunctive therapy for a vast array of disorders, including athletic injuries, dermatological, neurological, cardiovascular, and autoimmune diseases. Hyperbaric oxygen therapy is also an effective pre and post training enhancement modality, and of particular interest to the athletic and coaching fields. Increasing the oxygen perfusion to the brain enhances motor coordination and increasing oxygen to soft tissue reduces inflammatory processes and is restorative in traumatic and sports injuries.

The core concept of hyperbaric oxygen therapy requires the administration of oxygen via a pressurized vessel. The combination of these two components serves as the vector for the positive outcome in the human host. The recent availability of pressure vessels to the non-medical population warrants discussion of the adverse effects of the administration of pressurized air, especially to individuals compromised by an underlying disorder.”

Dangers of pressurized air

According to Reillo only a combination of pressure and administering oxygen has a therapeutic effect, while only pressurizing a chamber and thus increasing the oxygen content in air itself can actually be harmful, especially for people, who already have some underlying condition.

“Pressurization of a vessel increases the content of nitrogen in the inspired air. Inflammatory reactions in the lungs have been documented in healthy individuals inspiring air with mild to moderate increases in nitrogen concentrations (Rosen, et al., 1978). In individuals with underlying inflammatory processes, the reactions are increased significantly, causing exacerbations of underlying autoimmune conditions and triggering release of mast cells, such as in asthma. Research indicates that inspiration of increased nitrogen among healthy humans increases the autoimmune response to allergens (Department of the Environment, 1996),” she states.

Read more on why pressurized air is actually dangerous [here](#) or by clicking on the title under References.

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Reference:

Reillo, Michelle R. [The Difference Between Hyperbaric Oxygen Therapy and Pressurized Air](#). Published online via ANDInternational.