Rapid Recovery Hyperbarics

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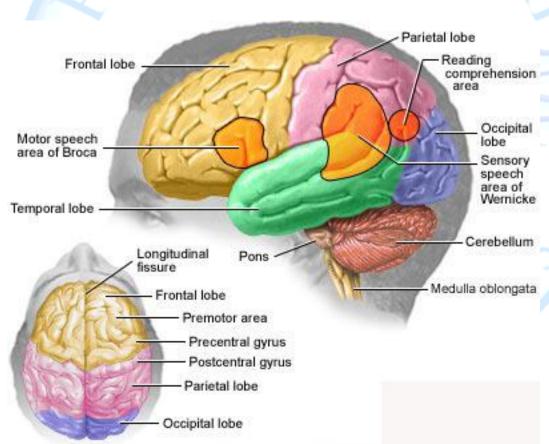
Stroke and HBOT

Stroke is the third largest cause of death, and the leading

cause of serious, long-term disability in the United States. Stroke is a form of cardiovascular disease, affecting blood flow to and within the brain. A stroke occurs when a blood vessel that carries oxygen and nutrients to the brain either bursts or is blocked. This causes areas of the brain, which are not receiving oxygen through blood, to die or become dormant. When areas of the brain die from a stroke, the area of the body corresponding to the affected damaged areas of the brain becomes dysfunctional.

Medical studies have found that while the prominent brain tissue of stroke patients may be damaged irreversibly, surrounding tissue that is considered dormant may be restored with hyperbaric oxygen therapy. It is these surrounding sleeping areas (the ischemic penumbra) that are responsible for the majority of the disability present in stroke. Reviving these inactive areas with oxygen has resulted in a return of functionality and in some cases, dramatic recovery.

HBOT for the Treatment of Stroke



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Swelling of tissues, resulting in lack of blood flow and oxygen, often accompany the death of cells in brain tissues in stroke patients. Hyperbaric pressurizes the environment to allow oxygen to better penetrate parts of the body where blood flow is hindered. Hyperbaric oxygen therapy alleviates ischemia and hypoxia, which are defined as lack of blood flow and oxygen. In addition, the therapy decreases swelling of chronically traumatized areas of the brain as well as other swollen tissues.

Oxygen is dissolved in the plasma and nourishes tissues, regardless of the absence of red blood cells, when hyperbaric oxygen therapy is utilized. The pressurized chamber forces oxygen into all areas of the body, resulting in a re-awakening of dormant areas of the brain prevalent in persons who have suffered a stroke. Hyperbaric therapy is also known to regenerate new blood vessels to damaged areas of the brain and aids in the repair and restoration of glial cells, extracellular matrix and injured neurons.

HBOT Research

Researchers worldwide are discovering promising results regarding the effects of hyperbaric therapy on brain cells damaged by stroke. Recent studies have seen a drastic decrease in the effects of stoke in the body in the majority of cases, when hyperbaric oxygen therapy is used either immediately following the incident or decades later. In situations where hyperbaric treatments are administered in years after a stroke, symptoms have remarkably decreased and neuron restoration was evident.

Significant symptom resolution was found in a study treating patients with hyperbaric oxygen therapy at 1.5 ATA for 60 to 90 minute sessions. Neurological improvements were demonstrated with the patients, resulting in better speech and thought process, seemingly caused by the increased blood blow in the ischemic penumbra. Significant improvements were also noted in attention, executive function, communication and memory as a result of the hyperbaric treatments.

Research results presented at the National Stroke Association Conference stated that evaluation of stroke patients, treated with between 1.5 and 2 ATA of hyperbaric oxygen therapy, showed promising results. Patients showed marked improvements in mobility, speech, memory, thinking, and understanding after receiving the therapy. Scientists also demonstrated positive changes in vision, balance, urine and bowel control in patients, and interestingly, saw symptom resolution in patients who were diagnosed with other conditions such as diabetes, immune dysfunction, and viral infections after hyperbaric therapy was used.