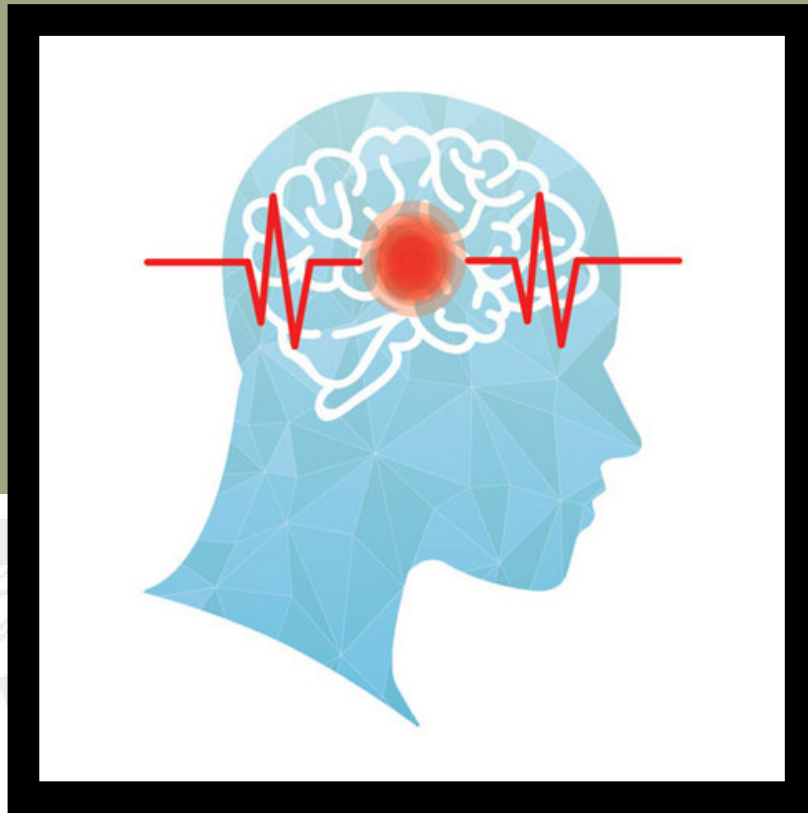


# THE NORTHWEST WELLBEING HUB



## HYPERBARIC OXYGEN THERAPY **STROKE** & PROTECTION FROM AN AGEING BRAIN

### KEY POINTS

- Increased oxygen supply to the brain
- Reduced brain swelling and edema
- Neuroprotective effects
- Angiogenesis and tissue repair
- Improves motor function & speech

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## STROKE

1. Increased oxygen supply to the brain: HBOT involves breathing pure oxygen in a pressurized chamber, leading to a higher concentration of oxygen in the bloodstream. This increased oxygen supply can help compensate for the reduced blood flow and oxygenation caused by a stroke. It promotes oxygen diffusion into the damaged brain tissue, improving its metabolism and aiding in the recovery process.

2. Reduced brain swelling and edema: Following a stroke, the brain may experience swelling and edema due to inflammation and the accumulation of fluids. HBOT has been shown to reduce brain swelling by decreasing the formation of edema and improving fluid reabsorption. This can help alleviate the pressure on the brain and potentially limit further damage.

3. Neuroprotective effects: HBOT has neuroprotective properties, meaning it can help protect brain tissue from secondary injury and limit the extent of damage caused by a stroke. It can mitigate the harmful effects of free radicals and oxidative stress, reduce inflammation, and promote the survival of neurons.

4. Angiogenesis and tissue repair: HBOT stimulates the formation of new blood vessels (angiogenesis) and promotes tissue repair. In the context of stroke, this can aid in the recovery of damaged brain tissue by increasing the blood supply to the affected area and supporting the growth of new neuronal connections.

5. Improved functional outcomes: Several studies have suggested that HBOT can improve functional outcomes in individuals who have suffered a stroke. This includes improvements in motor function, speech and language abilities, cognitive function, and overall quality of life. HBOT can enhance the rehabilitation process and help individuals regain lost function to a certain extent.



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