

Presents:

# HYPERBARIC OXYGEN THERAPY

Examples of Enhancing Treatment & Care with HBOT

## HBOT in the Treatment of Traumatic Brain Injury (TBI)



**Image 1**

A 7-year-old canine was referred for HBOT in the treatment of traumatic brain injury (TBI). The patient had been struck in the head by a vehicle. Referral radiographs revealed multiple skull fractures. On admission, the patient appeared blind, with severe forebrain signs, including head pressing. **(Image 1 Left)**

The clients declined neurologic diagnostic imaging. However, they requested hyperbaric oxygen therapy. There was marked improvement after the first session of HBOT for one hour in duration, at 1.5 ATA **(Image 2 Right)**

The owners allowed intermittent outpatient HBOT sessions over the next several days. After 6 days and a total of 6 HBOT sessions (each session at 1.5 ATA for one hour), the patient was ambulatory and able to navigate an obstacle course **(Image 3 Below)**



**Image 2**



**Image 3**

A 2004 study published in the Journal of Neurosurgery revealed that HBOT was superior to normobaric oxygen in its ability to restore mitochondrial function in a percussion brain injury model in rats (Daugherty et al, "Effects of hyperbaric oxygen therapy on cerebral oxygenation and mitochondrial function following moderate lateral fluid percussion injury in rats", J Neurosurgery, 2004 Sept, 101(3): 499-504).