

HBOT Study on TBI Recovery

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Hyperbaric chamber may help patients recover from traumatic brain injury

January 4, 2010 By Renee Tessman

MINNEAPOLIS, Minn. — Local researchers have uncovered a new potential use for hyperbaric chambers that's so promising, the results have been published in a national journal. And an assault victim is especially thankful for this innovative idea. The prognosis wasn't good for Brady Anderson back in the spring of 2005. He had a severe traumatic brain injury after being beaten by two men outside a Minneapolis bar just one week before he was to graduate from the University of Minnesota. Anderson told us by phone from his home in Thief River Falls, "Initially they said if I recovered I wouldn't be able to walk, talk and, you know, understand people's communication. And here I am today and I'm really fortunate." Anderson says he has recovered completely with only a few minor memory issues. He believes it's in part due to being treated in the hyperbaric chamber at Hennepin County Medical Center. He says, "I want to see the hyperbaric chamber be a standard form of treatment for brain injuries."

Anderson was one of 90 patients with traumatic brain injury given hyperbaric oxygen therapy as part of an HCMC study now published in the *Journal of Neurosurgery*. Neurosurgeon and study co-author Dr. Gaylan Rockswold explains, "What we found was the hyperbaric oxygen really improved what we call the metabolism or the energy production in the brain." He continues, "At the time of a brain injury, the demands for energy actually go up at the same time the delivery of oxygen to the brain goes down. And there really is an energy crisis in the brain that leads to cell death." Rockswold says the study showed giving a patient hyperbaric oxygen therapy significantly increased the brain's ability to produce energy. He says, "Were very pleased." Anderson is sure it improved his outcome. He eventually graduated and got his psychology degree. He says graduation day, "was really emotional." He is now working in his field but hopes to eventually work with others suffering from brain injuries. Right now, hyperbaric oxygen therapy is not available to the general public. More studies need to be done. Because this research is so promising, HCMC has applied for a \$23 million grant to help fund a much larger multi-center randomized trial.