

Conditions



Autism/Kids

A developmental disability that results from a disorder of the human central nervous system. It is diagnosed using specific criteria for impairments to social interaction, communication, interests, imagination, and activities. There are many theories as to the cause of autism such as abnormal cerebral blood flow to areas of the brain, high fevers, birth trauma, brain injury, infections, or lack of oxygen before, during, or after delivery. Other theories suggest mineral deficiencies such as calcium, iron, and zinc either in utero or after birth or fat and protein deficiencies. It has been said that autism manifests itself "before the age of three years" according to the World Health Organization's International Classification of Diseases.

What conditions are treated regarding children?

1. Autism
2. Hypoxic birth disorders
3. Cerebral palsy
4. Near Drowning
5. Birth asphyxia
6. Prenatal insults
7. Premature birth
8. Postnatal hemorrhage

HBOT *increases* the oxygen tissue concentration which increases cerebral blood flow to an area thus enabling the body to *restore* brain tissue metabolism of oxygen and nutrients, helping restoration of any areas which are suffering from hypoxia. New blood and oxygen begin to *stimulate* an area, especially one that has viable, recoverable brain cells that are

"idling neurons." HBOT also *reduces* swelling or excess fluid in the brain that might be pressing on centers of the brain which cause "confusion" in their function ability.

The Cornell Study

Dr Maureen Packard of Cornell University in New York City agreed to perform this study. This study was randomized to immediate and delayed (6 months later) treatment with HBO. Age range was 15 months to 5 years with moderate to severe CP and patients were given 40 1-h sessions at 1.5 ATA, once a day, 5 days a week for 4 weeks. The study included 26 children with CP secondary to prenatal insults, premature birth, birth asphyxia, and post-natal hemorrhage.

Parental diaries over the month of treatment demonstrated 83% marked improvement in mobility, 43% marked increase in attention, and 39% marked increase in language skills. Overall, there was some improvement in mobility in 91%, in attention in 78%, in language in 87%, and in play in 52%. One family saw no improvement and six families minimal improvement for a total of 30%. Five families (22%) reported major gains in skills, and 11 families reported modest gains (48%). The conclusions at 6-month post-interview were that although changes in spasticity may diminish over time, improvements in attention, language and play were sustained.

New Horizons

At a conference "New horizons for Hyperbaric Oxygenation" in Orlando Florida in 1989, results were presented of HBO therapy of 230 CP patients who had been treated in the early stages since 1985 in San Palo, Brazil (Machado 1989). Treatment consisted of 20 sessions of 1h each at 1.5 ATA (100% oxygen) once or twice a day in a monoplace chamber.

The results showed significant reduction of spasticity: 50% reduction in spasticity was reported in 94.78% of the patients. 12 patients remained unchanged. However, follow-up included on 82 patients, 62 of these (75.6%) had lasting improvement in spasticity and improved motor control. The parents reported positive changes in balance and "intelligence with reduced frequency of seizure activity."