

# AUTISM & HYPERBARICS

The alarming number of children diagnosed with Autism Spectrum Disorders in recent years has tragically increased; from 1 in 150 in 2000 to 1 in 68 by 2012, according the Center for Disease Control and Prevention. Due to that increase, more and more parents have turned to alternative forms of treatments to counteract the underlying symptoms of autism. Traditional medicines have often failed at producing desired results for many patients with autism and their families. However, studies have demonstrated hyperbaric oxygen therapy (**HBOT**) as an emerging treatment that parents and physicians are utilizing to help ameliorate the effects of ASD. This non-invasive treatment is as simple as a one-hour daily session, where the parent and child enter a hyperbaric chamber and receive increased levels of oxygen. HBOT has been shown to decrease inflammation and improve cognitive functions, which have substantially helped thousands of ASD patients. Studies have demonstrated the benefits of HBOT for autism with the following:

## ENHANCE BRAIN HEALING & REPAIR WITH HBOT

- Increases Oxygen Delivery to Hypoxic Tissues
- Reduces Neuroinflammation
- Moderates Mitochondria Dysfunction
- Promotes Neurogenesis
- Stimulates Stem Cell Proliferation & Mobilization
- Reduces Seizure Frequency
- Actuates Neuroplasticity

## IMPROVE PHYSICAL FUNCTION WITH HBOT

- Promotes Receptive/Expressive Language
- Improves Movement & Walking
- Stimulates Better Eye Contact
- Improves Gross/Fine Motor Skills

## ADVANCE MENTAL FUNCTION WITH HBOT

- Improves Sensory/Cognitive Awareness
- Increases Attention Span & Alertness

## IMPROVE BEHAVIORAL FUNCTION WITH HBOT

- Improves Sleep Pattern
- Advances Social Skills & Interaction
- Reduces Aggression

## IMPROVE DIGESTIVE FUNCTION WITH HBOT

- Reduces Gastrointestinal Issues
- Decreases Inflammation
- Enhances Nutritional Absorption

## Study: Autism Symptoms Ameliorated with HBOT

In 2009, a multi-center, randomized, controlled, double-blind trial was published, investigating the introduction of HBOT with 56 children diagnosed with ASD, ages 2-7. The study consisted of six separate HBOT centers that treated 30 children with 40 one hour sessions over the course of four weeks; whereas the remaining 26 children underwent sham treatment. Upon completion of this study, 80 percent of the treatment group's mean physician Clinical Global Impression scores for overall functioning, receptive language, social interaction and eye contact significantly improved. Major improvements within the Aberrant Behavior Checklist were observed in irritability, stereotypy, hyperactivity and speech. Finally, the treated children's ratings on the Autism Treatment Evaluation Checklist with respect to sensory/cognitive awareness, exemplified substantial improvement. Hyperbaric treatment was confirmed safe and well tolerated by the children and their parents in both groups.

Daniel A Rossignol, Lanier W Rossignol, Scott Smith, Cindy Schneider, Sally Logerquist, Anju Usman, Jim Neubrandner, Eric M Madren, Gregg Hintz, Barry Grushkin and Elizabeth A Mumper (2009) Hyperbaric treatment for children with autism: a multicenter, randomized, double-blind, controlled trial. *BMC Pediatrics* 2009, 9:21 doi:10.1186/1471-2431-9-21

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