

Hyperbaric oxygen chambers treating autism in Lower Hudson Valley

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Epidemic in dispute

In the April issue of the medical journal *Pediatrics*, research scientist Paul Shattuck of the University of Wisconsin, Waisman Center, challenged the claim that autism is an epidemic. He said special education classification for the disorder was inconsistent, adding that the rise in autism diagnoses has been accompanied by a corresponding decline in diagnoses of mental retardation and other learning disabilities.

More information

MAHOPAC — Eight-year-old Joseph Elliot slid out of a hyperbaric tank during one of his recent daily sessions and did something he had never done before.

He buttoned his shirt.

That spontaneous act may be of little consequence to some, but for Joseph, who has autism, the feat was another example of how oxygen treatment may be helping him.

"He's more talkative and engaged," said his mother, Pat Elliot of Irvington. "Usually he would be happy to amuse himself, but he notices people more now. It just makes him more typical."

Joseph started the first of his 40 one-hour sessions a few weeks ago at Valley Health and Hyperbarics in Mahopac, so the full extent of his improvement may have not yet been realized.

Though treatment outcomes vary from patient to patient, the majority see benefits, said Dr. Giuseppina Feingold, a pediatrician and Valley Health's medical director. Improvements in language, awareness, social skills and eye contact have been reported, she said. The procedure also has aided those suffering from intestinal inflammation and bacterial parasites, problems associated with autistic patients, she added.

"On the one hand, you have people saying autism is not treatable but, on the other, there are those who say it is treatable," Feingold said. "Within that movement, people are saying, 'Let's look at hyperbarics.'"

Although hyperbaric oxygen treatment, or HBOT, does not currently have government support, more people are turning to it as an intervention for autism.

Because HBOT, long recognized for treating burn patients and also divers with the bends, is used as an alternative therapy for those with cerebral palsy and other neurological conditions, health-care providers are looking to see its effects on treating autism, a condition that has seen a huge increase in diagnoses in the past 13 years, from afflicting 1 in 10,000 children to 1 in 166.

"With autism, it is thought that you are dealing with a brain that's been injured, similar to cerebral palsy," Feingold said. "Oxygen brings healing to the brain."

Autism is a neurological disorder that affects a person's ability to communicate, learn and relate to others, with symptoms and severity varying from person to person. There is no known cause or cure, and there is a debate over whether mercury in vaccinations may be linked to autism. The U.S. Centers for Disease Control and Prevention supports more research into the claim.

HBOT works by giving patients 100 percent oxygen at a greater-than-normal atmospheric pressure, typically between 1.3 and 1.5. An average person breathes in 21 percent oxygen at an atmospheric pressure of 1. The pressure inside the enclosed chamber is equivalent to being 16 feet under water.

While some may find the closed quarters daunting, Elliot said her son was enthusiastic about the treatment.

"He throws himself in there," she said. "He likes squeezing and compression."

The center, Feingold said, has seen an influx of patients with autism in the past two years, with more than 25 people receiving treatment.

The federal Food and Drug Administration lists 13 approved uses for HBOT, including air embolism, carbon-monoxide poisoning, thermal burns and decompression sickness. So-called "off-label" uses therefore are not covered by insurance. One treatment at Valley Health costs \$200.

Even so, studies are being conducted on the use of HBOT in autistic people. Matt Kabler, spokesman for the Autism Research Institute, said some preliminary studies have shown positive results. The organization is working with Defeat Autism Now! clinicians on more definitive research, he said.

While hyperbaric therapy is a relatively safe treatment, some side effects include claustrophobia, fatigue and headaches. More serious complications, such as temporary myopia, ruptured middle ear, and sinus and lung damage, also may occur. Since oxygen intensifies fire, patients and technicians must exercise care. Feingold said patients must wear 100 percent cotton clothing, no jewelry, makeup or hair spray.

"Complications are extremely rare," Feingold said. "The probability of a fire is 1 in 2.5 million. But you still need to talk about it."

With interest in hyperbarics on the rise in the U.S., Feingold is headed to Italy at the end of the month to extend her work in her native land. She said she will assist a doctor in opening up a hyperbaric treatment center in Milan, serve as a medical consultant to children "damaged by vaccinations," and speak about HBOT with monks who care for children with autism and other neurological disorders.

Feingold's belief in oxygen therapy is evident. She once sold her house, she said, to buy a hyperbaric chamber to treat her daughter who has cerebral palsy.

She does not take home an income from her work at Valley Health, she said, moonlighting instead as an emergency-room physician at Nyack Hospital and Our Lady of Mercy Medical Center in the Bronx.

"My daughter is doing great. She's 9, fully conversational, speaks Italian and says her prayers in Hebrew," said Feingold, who lives in Suffern. "I definitely see hyperbarics as a viable intervention. I think it is a matter of time (until) it gets to the mainstream."