

Treating vestibular disorders is child's play

By Matthew Coleman

Vestibular disorders, or balance system disorders, affect many children in the United States, and while hearing tests at birth are mandatory for children in most states, vestibular system testing is not. These undetected vestibular disorders can cause symptoms of dizziness and balance problems in children that can delay their development.



Pediatric vestibular testing uses conditioned play so patients don't feel like they are sitting through diagnosis, treatment, and therapy

Enter the Newport-Mesa Audiology, Balance & Ear Institute in Newport Beach, CA, with its pediatric vestibular rehabilitation therapy program that combines medical technology and "conditioned play" to diagnose and treat children who have symptoms of a vestibular disorder.

"The pediatric vestibular rehabilitation therapy (VRT) program is a modified version of the adult VRT test battery and therapy program," said Howard Mango, AuD, PhD, the founder and executive director of the institute. "Like the adult VRT program, the pediatric VRT program is modified to each patient's individual needs. Conditioned play is then integrated into all aspects of the pediatric VRT program to hold the interest and participation of the young patient."

Conditioned play in pediatric VRT gives young patients an opportunity to feel like they are playing, not sitting through diagnosis, treatment, and therapy. During the institute's neurotologic test center battery and rotational chair studies, for example, children play "space commander" and "shoot" stars during assessment. Children also play catch with the doctor during computerized dynamic posturography while bouncing on a therapy ball.

The institute has been developing and refining the pediatric VRT program for three years, and has treated 30 patients. Among those seen in the VRT program, each has shown improvement

from the therapy, and the pediatric program has been successful in demonstrating how pediatric patients with vestibular issues can be treated effectively with noninvasive therapy.

Casey Ecker was among the first patients to receive the therapy because he was not reaching speech and mobility milestones, largely because of his physical instability, which was making him fall.

After five sessions of the VRT therapy, "Casey showed improvement that was observable by his parents, including increased stability and the ability to run on the playground," Dr. Mango said. "Today, Casey has completed his treatment, and he is running and playing like a normal little boy. He is even playing ice hockey."

Some symptoms are red flags for vestibular disorders, such as children who are late crawling or walking, have poor fine or gross motor skills, and who have a predisposition to motion sickness. Some children also have difficulty looking at flashing lights and feel discomfort in chaotic situations. Pediatricians should look for developmental delays, balance issues, and suspicion of inner ear involvement.

It is vital to recognize that vestibular deficits can debilitate children and impair their motor development, Dr. Mano said. Many go untreated despite effective therapy because children are not screened for vestibular deficits.

"I think patients, referring physicians, and our own field need to understand that doctors of audiology should be involved in the diagnosis as well as the rehabilitation of peripheral vestibular disorders," he said. "With the advanced diagnostic technology we have at our disposal, we can now reach a differential diagnosis and apply customized protocols to treat and rehabilitate specific vestibular disorders among children."



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