



Children's
of Alabama®

INSIDE PEDIATRICS

NEW DEVICES IMPROVE TREATMENT FOR VESTIBULAR DISORDERS

Diagnosing children may present challenges due to their lack of vocabulary and limited ability to articulate what is happening to them. Pinpointing vestibular and balance disorders is no exception, but Children's of Alabama has introduced testing equipment as part of its multidisciplinary approach to diagnosing such disorders, improving the care team's ability to develop a targeted treatment plan.

The team includes audiology, physical therapy, occupational therapy, sports medicine, rehabilitation medicine and otolaryngology. "Children don't have all the words, so we have to be detectives. And now we are detectives together," said occupational therapist Karen McCormack. "Instead of patients seeing us all separately, we come together from all our points of view to give the patient what they need in a timely fashion so they can keep growing, developing and maintaining an active lifestyle."



Balance testing with visual and vestibular coordination task helps to pinpoint diagnoses.

"I'm proud to offer this service with a team of professionals investigating solutions and treatment for children with persistent dizziness or balance problems, said audiology supervisor Jennifer Shelor. "This is just another example of Children's commitment to technology."

Children's now assesses the vestibular system through a series of tests, including rotary chair testing, video head impulse testing (vHIT), vestibular evoked myogenic potentials (VEMP) and videonystagmography (VNG). The equipment was purchased in part by monies received from Wells Fargo via its annual Picks for Kids campaign, which donates \$1,000 to Children's Hearing and Speech Department every time a University of Alabama or Auburn University football player makes an interception.

In April 2016, the National Institute on Deafness and Other Communication Disorders (NIDCD) funded a study which suggests that more than one in 20 (5 percent) U.S. children may have vestibular and balance impairment. Children with hearing impairment are two times more likely to have vestibular and/or balance impairment compared to children with normal hearing.

"With this new equipment, we can target our treatment better," said physical therapist Tiffany DeLeonard. "This allows us to streamline the process."

Patients with vestibular issues include athletes who suffer concussions, as it is fairly common to experience balance problems following a head injury. Others, such as patients with cerebral palsy, may have balance concerns from birth. It is sometimes more difficult to identify the need for vestibular services in young children who have problems unrelated to an accident. Audiologists advise close monitoring of gross motor milestones as a means of discovering children who may be at risk for vestibular deficits.

"It may be hard for a child to tell you if and when they are dizzy," said audiologist Kaitlin Sipos. Added audiologist Alecia Cleveland, "Parents and pediatricians should watch for patterns. Do they have trouble walking and have frequent unexplained falls? Do they seem clumsy as compared to their peers?"

"Maybe they always run into the wall on the left side, or walk into you when you are on their right side. They may lean over to touch their toes and come up looking scared. If they don't like elevators or escalators, or complain elevators or escalators make them sick to their stomach, that could be a concern," McCormack said.

"One red flag for me is if a child can walk up the stairs, but not down. If the child exhibits several of these things together, it might be worth checking them. This technology, paired with the knowledge and expertise of our multidisciplinary team, helps us paint a complete picture."

For more information about the Vestibular and Balance Program, visit childrensal.org/vestibular-and-balance-program.

Listen to Children's of Alabama Hearing and Speech Department Director and Audiologist Jill Smith talk about improving treatment for vestibular disorders on the Inside Pediatrics Podcast at childrensal.org/podcast.