

LONG ISLAND VESTIBULAR PHYSICAL THERAPY

747 Wantagh Ave.
Wantagh Plaza
Wantagh, NY 11793
Phone: 516.628.7700
Fax: 516.279.1373

[HOME](#)

[OUR STAFF](#)

[ADULT
REHABILITATION](#)

[PEDIATRIC
REHABILITATION](#)

[CONCUSSION
PROGRAM](#)

[ORTHOPEDIC
MANUAL THERAPY](#)

[TESTIMONIALS](#)

[FREQUENTLY
ASKED QUESTIONS](#)

[CONTACT AND
DIRECTIONS](#)

Pediatric Rehabilitation

Vestibular dysfunction was once thought to only effect adults, however it is becoming more and more evident that children suffer from these issues as well.

The peripheral vestibular system (inner ear) develops early in the first trimester of pregnancy, already resembling that of an adult. It continues to mature throughout childhood and has an important role in development. The vestibular system is responsible for detecting and sending information to our brains regarding our motion and orientation to our environment or position in space. It works with our brain to produce reflexes, which control and coordinate our eye movements and balance reactions in response to motion or change in position.

During infancy the vestibular system is essential for successful achievement of mature movement patterns and postural alignment during developmental milestones such as rolling, sitting, standing, and walking. It is later important for balance, coordination, and stable vision during activities like running, skipping, jumping, kicking a ball, throwing and catching, climbing stairs, bicycle riding, and swimming, as well as reading and writing.

There are various conditions that can cause a vestibular dysfunction in a child. Vestibular dysfunction may be present at birth in association with a genetic disorder or condition (i.e. Usher Syndrome, Waardenburg Syndrome), congenital sensorineural hearing loss, neurological conditions (i.e. Cerebral Palsy, hydrocephalus), sensory processing disorder (with or without Autism Spectrum Disorder), vascular

insufficiencies, or anoxia (lack of oxygen during birth/delivery). Children born with typically developed and functioning vestibular systems may acquire a vestibular dysfunction as a consequence of an infection (i.e. a virus, meningitis, chronic ear infections), ototoxicity (damage to the vestibular system caused by certain medications, i.e. aminoglycoside antibiotics or chemotherapy), stroke, brain tumor, trauma/injury (i.e. surgical trauma (i.e. cochlear implantation), sports injury, car accident, fall), migraine, or as a result of a metabolic or immune disorder. Children may additionally suffer from specific vestibular conditions, such as Meniere's Disease or Benign Paroxysmal Positional Vertigo (BPPV) (both of which are notably more prevalent in adults), as well as Childhood Paroxysmal Vertigo (CPV).

Signs and symptoms of vestibular dysfunction in a child will vary depending upon the cause of the dysfunction and the age of onset. An infant/toddler may exhibit a delayed, absent, or abnormal reflex responses or reactions to movement/position change, and may have a delay in achievement of developmental milestones. A school-aged child may have difficulty keeping up with their peers on the playground, or in gym class or sports, with decreased eye-hand and eye-foot coordination, and may appear clumsy with poor balance, or tendency to fall. A school-aged child may also have difficulty reading and writing – often these children are improperly diagnosed with learning disabilities. Some older children will complain of dizziness, or may report that they feel as though they are on a boat, or that the room is spinning. Some children may experience nausea or vomiting. They may experience motion sickness or sensitivity and may practice avoidance or seeking behaviors, particularly those children with known sensory integration issues.

The younger the child is at the onset of the vestibular dysfunction, the less likely they will complain of any symptoms. This is typically the case even as they age since they may not be able to appreciate their symptoms as being abnormal.

EVALUATION

The initial vestibular therapy evaluation will consist of a detailed review of the child's medical history and present signs/symptoms, and a thorough assessment to identify all impairments that may be contributing to those signs/symptoms, which will be age-specific, and may include: assessment of developmental reflexes, postural alignment, eye movements, age-appropriate gross and fine motor skills, balance, gait, coordination, muscle strength and joint range of motion, and motion and/or positional sensitivity.

TREATMENT

Vestibular rehabilitation involves specialized exercises designed to promote acquisition and appropriate integration of developmental reflexes, and to improve visual motor control and dynamic visual acuity, balance, coordination, and achievement of age-appropriate motor development, while reducing symptoms of dizziness, instability, and motion sickness/sensitivity. All treatment interventions are individualized and are age specific.