

Understanding the Vestibular System

The vestibular system is located in the canals of our inner ears and our controls balance, movement, muscle tone, and posture as we move throughout our day. Vestibular input has much to do with gravity and how our bodies change from different planes of movement (back to front, side to side... etc.). Having the ability to comfortably and freely move throughout our environments is important to maintaining healthy and happy well-being! Many children have vestibular processing deficits that can be supported by therapists and parents like you. Common signs a child might be struggling with vestibular processing deficits are:

- Avoiding or craving lots of movement (swinging, running, spinning, bouncing)
- Engaging in only sedentary activities (reading, coloring)
- Fear of getting picked up or held (AKA gravitational insecurity)
- Inability to sit still, especially in the school environment and at dinner time
- Needing encouragement to engage in sports and active activities

Although this list is not comprehensive, it gives some of the most commonly seen vestibular registration dysfunction in children. Children with vestibular processing deficits not properly addressed are at risk for a variety of detrimental developmental effects including: low postural control, decreased emotional well-being, and decreased auditory processing abilities. The auditory system is uniquely connected to the vestibular system because they share a cranial nerve in the brain. Therefore, combining auditory and vestibular input is beneficial for strengthening neural connections. Some activities to engage in at home to incorporate both the vestibular and auditory systems include:

- Singing songs while swinging, or bouncing
- Playing instrumental music in the background of movement activities
- Playing memory games while throwing the ball in the backyard
- Dancing to your child's favorite movie soundtrack
- Allowing dance breaks during sedentary activities such as watching a movie
- Doing somersaults through the hallway to the beat of a song
- Swinging on the swings at the playground while humming
- Listening to music while jumping on the trampoline

Overall, our vestibular system is so important to children's well-being and it promotes the development of self-regulation. It is essential to respect your child's limits as vestibular reactions can be intense for the child and vestibular dysregulation can cause lots of discomfort (stop means stop). With a changing society shift to more technology and screentime, vestibular dysregulation is more prevalent than ever. Encourage movement, look for signs, and incorporate auditory stimulation into your child's vestibular exercises.