

The Significance of Embracing the Vestibular Sense



Sense

The vestibular sense, also known as the balance sense, is the awareness of your body in space. The name comes from the word vestibule. This sense is quite literally a hallway to the brain.



Sensory System

This hallway begins to develop in utero at just two months after conception. The vestibular sense is completely formed around five months after conception and movement in the womb will contribute to its development. The vestibular sense is the first fully functioning sensory system to develop.



Examples

Children love to swing. They love to twist the ropes of the swing and then spin as fast as they can. Kids will roll down hills over and over again. They love to play rough and tumble, hang upside down on monkey bars, dance, do somersaults, play leap frog and wheelbarrow race.



Balance Sense

Each one of these activities is strengthening the balance sense and helping children learn where their body is in space.

The vestibular sense goes back to the incredibly small hairs inside the inner ear. When we move, the fluid in our ears moves and stimulates those hairs, sending the brain information about where our body is in space. The more a child is out of an upright position, the more the fluid will move over the hairs, and the stronger the vestibular sense will become. Children need to put their bodies in all different positions and move them in all different directions in order to get that fluid moving.

Personal Space

The vestibular sense is a cornerstone sense because it affects the incorporation of all of the others senses. What does this look like? Children with a strong vestibular sense are more coordinated and better balanced. Kids who haven't fully developed their vestibular sense tend to be clumsy and run into things. They may not have a good understanding of personal space.



The Eyes Too

Anytime we move the body or the head we activate vestibular sense. This activation sends signals to the eyes telling them that they need to respond.

Strong eye muscles help with both for reading and writing. We need to have eye muscles that are individually strong but also muscles that track well together. The retina has 137 million nerve endings that take in sensory information.

And Feet!

The progression of sitting to crawling to toddling to running during the first 15 months is a crucial time for developing the balance sense. It is vitally important that children are able to practice these skills on all different types of terrain so that their movements is not always linear. The variation of the outside surfaces will lend tremendously to sensory development. Children who are always on flat surfaces do not get the stimulation their bodies need. Add an extra layer of depth here by spending some time outside in bare feet. Learning foot flexibility will aid in sensory development as well.

Sensory Development

Movement during the day and throughout childhood is crucial. The importance here is monumental. Childhood is when children develop the vestibular sense and it's not happening while they sit still. Circle time, seat work, and computer lab sessions do not contribute to this type of sensory development. This is one reason why recess is so good for academics. Outside time helps with brain development. It wakes the brain up so that the student is ready to learn more in the classroom setting.

Spinning Activities

Adults do not need to spin but children do. It's okay and beneficial for them to become dizzy. In time, as they get used to all that fluid moving around in their inner ears, they will become more adept at navigating their surroundings. Spinning activities lead to increased alertness, increased attention, and increased calmness. This must be why children are so drawn to them.



Balance and Reading?

Any time during childhood you choose to increase movement, especially movements that stimulate balancing, you will assist your child in his or her ability to pay attention. Balancing activities help immensely with reading skills.



Screen time

Another time when children are keeping their bodies and heads almost completely still is when they are watching screens. Our toddlers have always had a hard time sitting through a movie and I think it's because their bodies are telling them to get up and move. Their brain needs to be stimulated by movement. Comparing and contrasting body and head movement between a child who is outside in a nature and a child who is inside in front of a television screen, clearly displays why there can be such vast developmental differences between children.

Time Component

Whether we figure out how to fit nature into our schedules or not, childhood marches on. The time component is a big deal. We all want to feel good about the choices we are making, but the fact remains that if three or four hours a day is a benchmark that is coming up time and again, then four hours a week probably isn't going to cut it. Whereas 200 hours of outside time a year may seem like a lot from a pure numbers perspective, it really isn't anywhere close to what children need in order to develop properly.

Closing

The more we understand about the development of children, the more we can be confident in our choices to choose nature time! It's always worth our time to play outside.

In "Smart Moves, Why Learning is Not All in Your Head", Carla Hannaford writes,

"In Denmark, fifty percent of the children spend between ages two and a half and six in Forest Kindergartens where they climb rocks, trees, hills, roll, jump, balance and play at least four hours a day no matter the weather. These children's vestibular systems are so well developed that learning difficulties and dyslexia are rare."



Opportunity Through Education

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