

Sensory Integration and Development 101

Sensory integration is the organizing that the brain does from our senses. Most of us are blessed with five senses that allow us to touch, smell, taste, see, and hear. These senses come into our brain and are organized into information about our body. This is **sensory integration**.

Sensory integration:

- occurs at an unconscious level.
- directs our behavior.
- forms the foundation for academics.

A child with a sensory integration dysfunction can present with many varied symptoms. From one child to the next, the symptoms can be completely different. As mentioned earlier, we have sensations that tell us what is coming from outside the body.

Sight, sound, taste, smell, and touch.

We also have sensations that tell us where the body is in space. This is

proprioception, vestibular, and tactile.

Proprioception refers to the movement of our body. This can mean movement of our eyes, limbs, or our posture. When the proprioceptive system is not working correctly, we see a child who exhibits jerkiness because of lack of smooth, controlled movements. They may have difficulty with motor planning. This is the child where there may be toys on the floor and they have difficulty manipulating their way around them. They may step on the toy instead of being able to go around it. A proprioceptive delay may have also be apparent when learning to walk or crawl. These areas may have been delayed or, again, lacked smoothness in the movement. The child may have difficulty writing or tying their shoes. They may have difficulty with postural control which means they cannot easily transition. The child may have difficulty transitioning between movements, such as in weight shifting or standing on one foot. This is the child who is constantly falling over or bumping into others in line.

Another area that impacts the sensory system is **tactile defensiveness**. This is the child who demonstrates an over reaction to touch. The same thing can happen with smell. Therefore, they may be uncomfortable with certain textures and styles of clothing. Their socks can bother them. They hate new shoes. They want all the tags taken out of their clothes. Even the very sensation of someone touching them may send chills and discomfort through their body.

Because they are sensitive to smells they may be a very picky eater. They may have to smell their food before they eat it. The smell of certain foods may trigger an immediate gag reflex. Many children with sensory integrative dysfunction pose a huge challenge for their parents in getting them to eat. As infants they easily gag and throw up. As young children they can become extremely upset at trying new foods. Many times they will refuse new foods based on the taste and texture. They usually have a limited diet of maybe five foods that they eat over and over. Therefore, nutrition is a huge concern for these children.

Finally, there is the **vestibular** system. This is the most important system for language and learning. The vestibular system relates to balance. It is directly attached to the auditory system. This is the child who may have had a past medical history of ear infections during the first two years of life. They may have difficulty speaking. They may struggle with reading specifically sound/symbol orientation. Or, this child may constantly lose their balance and feel dizzy. This is the child who does not want to leave the floor. They don't want to go on things that move. They may even panic from stepping up on a small stool.

Sensory integration dysfunction can cause a tremendous energy cost to the child. Function that should be at a very subconscious level becomes very conscious and tedious. Because of the constant energy cost to the nervous system, the child struggles to attend and recall in a classroom setting. If you think your child may have a sensory integrative dysfunction, it is important to take him to a therapist trained in sensory integration. The therapy your child receives can result in healing and huge changes in development.

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