

Understanding the Senses and Identifying Problems

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Editor's Note:

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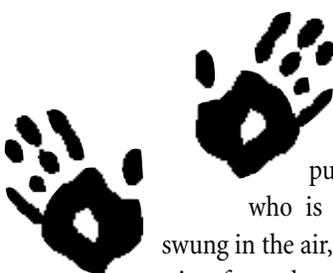
Infants, children and adults receive sensory information all the time. The five "far senses" - seeing, hearing, touching, tasting and smelling - provide input from outside of the body. Three additional senses, the "hidden senses" or "near senses" give information from within the body. As a child matures, how this information is used becomes very important in terms of overall development. Tasks like sitting still and paying attention involve a child's ability to blend all of these senses, a process that is critical for learning developmental skills.

Hidden Senses

Tactile sense refers to the touch sense all over one's body; input comes from pressure, vibration, pain, movement and temperature. Tactile sense tells a person when a wool sweater feels too scratchy, or someone is hugging too tightly. It is the tactile sensation or squishy feeling of runny eggs that may not be appealing to everybody. Vestibular sense refers to information received in the inner ear relating to movement of the body and changes in position of the head. It allows a person to distinguish between body movements such as walking, running or riding a horse. Proprioception, or position sense, tells a person where their body parts are through input from muscles, ligaments and joints. Proprioception tells a child their fingers are on a video game controller, even when their eyes are on the TV screen, or that their legs are pumping in and out when swinging on a swing, while their arms are holding onto the chains.

Sensory Integration Dysfunction

The five far senses, plus the three hidden senses, constantly send a great amount of sensory information to the brain, making receiving and organizing this information one of the brain's important functions. Some children have problems processing the sensory information they receive. This condition, often called Sensory Integration Dysfunction or Sensory Processing Disorder, can involve any or all of the senses. Examples include a child who has difficulty processing sounds so he covers his ears to avoid the



noise of the vacuum cleaner; a child who has difficulty processing tactile information and avoids chewing by eating only pureed or smooth food; and a child who is afraid of movements, like being swung in the air, due to difficulty processing information from the vestibular system. While everyone has some sensory integration dysfunction - a dislike for scratchy sweaters or certain foods they don't eat - it becomes a problem when those dislikes begin to interfere in everyday activities.

Sensory Integration Dysfunction may make it difficult, or impossible, for a child to learn from their own experiences and behave in a meaningful, consistent way. It can affect motor and body movements, balance and coordination skills, body awareness, language skills, visual perceptual skills and emotional stability, and can also significantly impact learning and social skills - a child in a classroom setting who is always paying attention to the air conditioner hum, or annoyed by the way their sweater feels, will have difficulty focusing on academics.

Concerns about Sensory Integrative Dysfunction often go undiagnosed or are attributed to other factors such as Attention Deficit Hyperactivity Disorder (ADHD), learning disabilities or behavior issues. However evaluation and treatment at an early age can improve coping skills and increase overall learning potential. Sensory Integration Dysfunction is treated by Occupational Therapists either privately or through a local school system. Therapy typically involves activities that stimulate and challenge the senses in order to help a child develop age appropriate responses. If you think your child may need an evaluation contact your family doctor or call Children's Hospital at (804) 228-5818. ■

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