

Why Sensory Integration Disorders Are Getting More Attention

Untreated, Sensory Dysfunction Can Impact Academic Performance, Development of Vital Skills

by Jessica Pupillo

Lisa Goodman of Chesterfield thought sensory integration therapy was a gimmick.

When a neighbor recommended she take her 7-year-old, Brett, to an occupational therapist, she took him but remained skeptical. "I remember thinking, is this just another thing they're coming up with now?" she said. "When they gave me the evaluation to fill out, I was like, 'Oh yeah, that's my child.'"

Her son was behind his classmates in handwriting, he overreacted when people touched him and loved to spin in circles.

After receiving occupational therapy with Marla Shyken, owner and occupational therapist at Mid-America Therapy Services in Ballwin, Goodman saw a dramatic improvement in her son. Therapy involved activities that looked just like play, such as swinging, drawing, riding on scooter boards, and playing with rice, dough and sand. It did wonders for Brett. "Everything he did improved," Goodman said.

It turned out that Brett's senses of touch, balance and movement, and the feedback his muscles sent to his brain were the root cause of his problems at school. While it may look like simple child's play to the untrained eye, occupational therapy helps kids understand the information the body's senses send to the brain.

Sensory integration involves how the brain receives and organizes the information from the senses, including vision, touch, hearing, movement and balance. If the senses are not communicating effectively with the brain, a person may seek out different sensations or avoid them in an attempt to regulate themselves.

A person with sensory integration dysfunction may also seem distracted as they are spending considerable energy compensating for their senses. For example, a child having difficulty with the sense of touch may interpret a gentle pat on the shoulder as a slap, or a child may be so irritated with the tag on a shirt that he simply can't focus. A child with visual difficulties may want all the lights turned

on or that child may prefer a dark room. A child with auditory trouble may be so keyed in to the sound of the air conditioning, for example, that she can't pay attention to the teacher.

"To get to the higher level of functioning, which is learning, you have to have all of these sensory systems in tact."

**— Marla Shyken,
Occupational Therapist**

"All of us have our own sensory profiles," said Kay McCarthy, occupational therapist and owner of Building Blocks in Kirkwood. "When your personal sensory profile starts to interfere with your daily functioning, that's when you need to attend to it."

Sensory processing problems can limit a child's choices in life, McCarthy said. Sensory problems can affect all aspects of development, including attentiveness, social interactions, academics, and fine motor skills such as handwriting, and gross motor skills such as ball play and jumping rope.

"In order to be able to get to the higher level of functioning, which is learning, you have to have all of these sensory systems in tact," Shyken said.

Paying attention to a task challenged Jasmine Saliba, 3. Jasmine was in such a constant state of motion, sitting still was nearly impossible, and the preschooler would often kick her legs so hard she'd flip herself out of her seat at the table, said her mother Heather Saliba of West St. Louis County.

Jasmine was having trouble integrating her tactile, vestibular and auditory senses, Saliba said. Occupational therapy with Shyken has done wonders for Jasmine. She is now able to focus and has stopped kicking herself out of her chair. "She's calmer, but she's still very joyful!" Saliba said.

When to Get Help: If your child displays a *combination* of these behaviors or delays, talk to your pediatrician, parent educator or occupational therapist. Your child may benefit from intervention.

Birth to age 3

- A delay in developmental milestones by three or more months
- Routine difficulty comforting the child
- Poor eye contact
- Inability to communicate needs
- Limited choice in play activities
- Frequent emotional outbursts
- Signs of stress or fear with noises, movement, being messy, being outside
- Sensory concerns such as excessive seeking or avoiding touch, movement, visual tasks or smells
- A strong need for routine or order in the day

Ages 3 to 5

- No functional hand grasp by age 4

- Hand dominance not established by age 3
- Excessive mouth and tongue movements or drooling during fine motor tasks
- Draws a person with very few details at age 5
- Consistently avoids the same tasks, such as messy play, outside activities or fine motor tasks
- Easily frustrated
- Exhibits extremes in play, either very quiet, very loud, very rough or tentative in play
- Excessive seeking or avoiding touch, movement, visual tasks or smells
- Slow to complete tasks and asks for lots of individual help

Source: Kay McCarthy, OT, Kirkwood

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Sensory Integration Disorder *Continued*

Parents should know that sensory issues are manageable, McCarthy said. With appropriate therapy, kids make incredible strides.

"The main thing is therapy is fun. You're working on changing brain chemistry to help kids regulate, focus, learn and feel better about themselves," Shyken said. "The brain is plastic and by receiving occupational therapy, children – and even adults – improve through professionally guided sensory integration therapy sessions. We give kids enough sensory input to help them cope, adapt and process information correctly."

Understanding the Senses

Kids with a sensory integration problem can show a wide variety of symptoms depending on the senses affected. Below, McCarthy and Shyken provide a rundown of each sense and how a related sensory issue can impact a child's daily life.

Auditory: Kids who have sensory issues related to hearing will often complain that it's too loud or cover their ears with their hands. Sometimes parents find that while the child complains it is too loud, the child will engage in noisy play or speak loudly. "It's totally different how much the child can take if that child is in control of the sensory input than if someone else is in control of it," McCarthy said. Kids may not be able to focus when there are noises, even quiet sounds, in the room, Shyken added.

Visual: Visual sensory issues usually manifest themselves in self-stimulating behavior, behaviors a child uses to keep himself alert. Kids will often spin tops, wheels and other objects. Kids may want all the lights turned on, or prefer it to be dark. Kids may have trouble focusing when others are in their line of vision.

Olfactory: The sense of smell affects people emotionally. Children troubled by smells may feel anxious when exposed to strong smells.

Tactile: The sense of touch is related to your skin and your mouth. Kids with tactile problems may be bothered by clothing tags and seams, messy play, having their faces wiped, hair brushed or diapers changed, for example. They may be picky eaters, opting to only eat foods with specific textures.

Vestibular: The vestibular sense is critical for balance and movement. Children with vestibular challenges may be slow to develop early milestones, such as crawling and rolling over. Kids may also seem to be in constant motion, loving to swing and be thrown in the air, or they may avoid movement. The vestibular and auditory system are often tied together. Both are physically adjacent to each other and share some of the same neural pathways to the brain.

Proprioceptive: Proprioceptive receptors are located in the muscles and joints throughout the body. They tell the brain where the body is located in space and how much force the muscles are applying. This sense allows kids to know where their limbs are without having to look at them. Kids with difficulties related to the proprioceptive system may appear clumsy or they may play roughly, often breaking toys or the tips of their pens and pencils. Kids may need to look at their feet when walking or their hands when doing a task. ■

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