

Sensory Processing Issues Explained

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Oversensitivity, tantrums, clumsiness: all could point to problems taking in the world

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Sensory processing issues are often first recognized during the toddler years, when parents notice that a child has an unusual aversion to noise, light, shoes that are deemed too tight and clothes that are irritating. They may also notice clumsiness and trouble climbing stairs, and difficulty with fine motor skills like wielding a pencil and fastening buttons.

More baffling — and alarming — to parents are children who exhibit extreme behaviors:

- Screaming if their faces get wet
- Throwing tantrums when you try to get them dressed
- Having an unusually high or low pain threshold
- Crashing into walls and even people
- Putting inedible things, including rocks and paint, into their mouths

These and other atypical behaviors may reflect sensory processing issues — difficulty integrating information from the senses, which may overwhelm children and result in confusing behavior. Parents of children with these issues often call it Sensory Processing Disorder, or SPD. Psychiatrists, however, are quick to note that SPD is not a recognized disorder in the Diagnostic and Statistical Manual.

Sensory processing problems are now considered a symptom of autism because the majority of children and adults on the autism spectrum also have significant sensory issues. However, many children with sensory issues are not on the spectrum. They can also be found in those with ADHD, OCD and other *developmental*

delays — or with no other *diagnosis* at all.

Dramatic mood swings and tantrums

What parents often notice first is odd behaviors and wild mood swings, strange at best, upsetting at worst. Often it's an outsized reaction to a change in environment — a radical, inexplicable shift in the child's behavior.

For instance, a first-grader may do fine in a quiet setting with a calm adult. But place that child in a grocery store filled with an overload of visual and auditory stimulation and you might have the makings of an extreme tantrum, one that's terrifying for both the child and parent.

“These kids' temper tantrums are so intense, so prolonged, so impossible to stop once they've started, you just can't ignore it,” notes Nancy Peske, whose son Cole struggles with sensory issues. Peske is coauthor with occupational therapist Lindsey Biel, who worked with Cole, of *Raising a Sensory Smart Child*.

Fight-or-flight response

Another response to being overwhelmed is to flee. If a child dashes out across the playground or parking lot, oblivious to the danger, Peske says that's a big red flag that he may be heading away from something upsetting, which may not be apparent to the rest of us, or toward an environment or sensation that will calm his system. Or a child might become aggressive when in sensory overload, she says. “They're actually having a neurological ‘panic’ response to everyday sensations the rest of us take for granted.”

Some kids on the spectrum are known to wander to water, too often with deadly results. One theory is that water offers input they crave because of sensory issues. “Not all sensory kids do this,” Peske says, “but most gravitate toward the sensations and environments they find calming or stimulating. Their self-regulation is not great, so safety takes a back seat to their need to get that input or that calming experience of being in water.”

Children, teens and adults with sensory challenges experience either over-sensitivity (hypersensitivity) or under-sensitivity (hyposensitivity).

What are sensory processing issues?

Sensory processing difficulties were first identified by occupational therapist A. Jean Ayres, PhD. In the 1970s, Dr. Ayres introduced the idea that certain people's brains can't do what most people take for granted: process all the information coming in through *seven* — not the traditional five — senses to provide a clear picture of what's happening both internally and externally.

Along with touch, hearing, taste, smell and sight, Dr. Ayres added the “internal” senses of body awareness (proprioception) and movement (vestibular). When the brain can’t synthesize all this information coming in simultaneously, “It’s like a traffic jam in your head,” Peske says, “with conflicting signals quickly coming from all directions, so that you don’t know how to make sense of it all.”

What are these two “extra” senses in Dr. Ayres’ work?

The internal senses

Proprioceptive receptors are located in the joints and ligaments, allowing for motor control and posture. The proprioceptive system tells the brain where the body is in relation to other objects and how to move.

Children who are hyposensitive crave input; they love jumping, bumping and crashing activities, as well as deep pressure such as that provided by tight bear hugs.

If they’re hypersensitive, they have difficulty understanding where their body is in relation to other objects and may bump into things and appear clumsy; because they have trouble sensing the amount of force they’re applying, they may rip the paper when erasing, pinch too hard or slam objects down.

The vestibular receptors, located in the inner ear, tell the brain where the body is in space by providing the information related to movement and head position. These are key elements of balance and coordination, among other things.

Those with hyposensitivity are in constant motion; crave fast, spinning and/or intense movement, and love being tossed in the air and jumping on furniture and trampolines.

Those who are hypersensitive may be fearful of activities that require good balance, including climbing on playground equipment, riding a bike, or balancing on one foot, especially with eyes closed. They, too, may appear clumsy.

A sensory checklist

To help parents determine if their child’s behavior indicates serious sensory issues, Peske and Biel have created a detailed sensory checklist that covers responses to all types of input, from walking barefoot to smelling objects that aren’t food, as well as questions involving fine and gross motor function, such as using scissors (fine) and catching a ball (gross).

The list for infants and toddlers includes a resistance to cuddling, to the point of arching away when held, which may be attributed to feeling actual pain when being touched. By preschool, over-stimulated children’s anxiety may lead to frequent or long temper tantrums.

Grade-schoolers who are hyposensitive may display “negative behaviors” including what looks like hyperactivity, when in fact they’re seeking input. Those who are hypersensitive are avoiders; this can translate into refusing to brush their teeth or have their faces painted. To make things even more complicated, kids can be both seekers and avoiders and have both proprioceptive and vestibular challenges, along with issues relating to the traditional five senses.

Misinterpreted behavior

Peske sums up the way sensory issues can affect kids this way:

“If you’re a child who is oversensitive to certain sensations, you are not only likely to be anxious or irritable, even angry or fearful, you’re likely to be called ‘picky’ and ‘oversensitive.’ If you rush away because you’re anxious or you’re over-stimulated and not using your executive function well because your body has such a powerful need to get away, you’re ‘impulsive.’ If you have trouble with planning and executing your movements due to poor body awareness and poor organization in the motor areas of the brain,” she adds, “you’re ‘clumsy.’ Because you’re distracted by your sensory issues and trying to make sense of it all, you may be developmentally delayed in some ways, making you a bit ‘immature’ or young for your age.”

Amid this confusion, there may be relief for more than a few parents in recognizing what maybe causing otherwise inexplicable behavior. “When I describe sensory issues to parents whose kids have them,” Peske says, “the usual reaction is ‘Oh, my gosh, that’s it!’ They’ve been trying to put a finger on ‘it’ for many months, even years! The sense of relief that they finally know what ‘it’ is is humongous.”

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