# Questions and Answers for Lindsey Biel, M. A., OTR/L and Nancy Peske, authors of RAISING A SENSORY SMART CHILD: The Definitive Handbook for Helping Your Child with Sensory Processing Issues

#### What are "sensory issues"?

We use information from our senses to help us understand our environment and what's going on in our bodies. When, for whatever reason, a person's nervous system does not take in and process information in a typical way, we say he has "sensory issues." This is different from the mild sensory preferences we all have, such as preferring our oatmeal thick or thin, or preferring to wear clothing that is tightly fitting rather than loosely fitting. When sensory issues interfere significantly with learning, socializing, and functioning in everyday life, that person has what we call "sensory processing disorder" or SPD.

#### Who has sensory issues or SPD?

Many people, young and old, have sensory systems that function atypically. One child in 20, or approximately one in every classroom, has sensory processing disorder. SPD is associated with autism, ADHD, premature birth, multiple medical interventions in childhood, adoption from overseas, and learning disabilities as well as some medical diagnoses.

#### What make it hard for a child with SPD to learn, play, and socialize?

When your sensory processing is not working properly, it's as if the volume control on one or all of your senses has gone haywire. Imagine sitting in a classroom, trying to pay attention to the teacher's voice, when you can hear the child next to you writing in his notebook and to you, it sounds as loud as a fighter jet screaming overhead. Or enjoying yourself at a birthday party when you're nauseated by the mere thought of eating cake and frosting with their two very different textures at the same time...while you're tensing up in fear at the thought that one of those balloons might pop and cause an excruciatingly painful noise.

While most people with sensory issues are not on the autism spectrum, the majority of people with autism do have sensory issues. Children with autism, currently said to number 1 in 68 births, often engage in self-stimulating, repetitive behaviors (called "stimming"). Often, these "stims" are sensory seeking in nature. Behaviors such as hand flapping and spinning objects may provide soothing sensory input that calms them or refocuses their attention away from noxious sensory input from the environment. The problem isn't always the sensory behavior itself but that a child who is staring at a spinning object for long stretches of time, avoiding interacting with other people, or melting down because of his discomfort is making himself unavailable for learning and socializing. *Raising a Sensory Smart Child* provides explanations and practical strategies for helping these kids whose sensory issues are quite intense.

## What can be done for a child with sensory issues?

A lot! We wrote *Raising a Sensory Smart Child* because it was the book Nancy and other parents needed to help their kids function better at home, at school, and away, so it's full of practical advice. It is a lifesaver for parents, teachers, and anyone who works with kids with sensory challenges!

## Most of us think there are five senses, but in fact there are eight. What are they?

There are the five outer senses we all learned about in school:

- 1 Touch: reactions to light touch, deep pressure, vibration, temperature, and pain sensations
- 2 Auditory: making sense of sounds
- 3 Vision: making sense of what we see
- 4 Taste: sensitivity to certain foods
- 5 Smell: sensitivity to certain smells

We also have three internal senses:

## 6. Proprioception: body awareness

This is the sense that tells you where your fingers are when your hand is behind your back; without using your visual sense you know exactly where all the parts of your body are. A child with poor body awareness may fall a lot, slide off chairs, or deliberately crash into people and objects to help him feel where he is in space. We call this a "sensory seeking" behavior. The child is trying to get sensory input that will help his system figure out what's going on in his body and his world.

## 7. Vestibular sense: reactions to movement and gravity

This sense, located in the inner ear, tells you whether you're moving and in what direction. Children with a poor vestibular sense make insist on spinning, swinging, or being upside down, or they may be terrified of these movements and avoid them.

## 8. Interoceptive sense: internal system awareness

This sense tells you whether you are hungry or full, are thirsty, need to urinate or defecate, are chilled or overheated, or feel nauseated, fatigued, or sexually aroused. It also tells you what's going on with your heart rate, breathing, and more.

## What senses do children with sensory challenges have the most trouble with?

It used to be thought that these kids had the most problems with touch, proprioception, and the vestibular sense, but we now know these kids often have visual and auditory processing problems too. And for some kids, smells and tastes can be deeply upsetting or overstimulating. What kids, teens, and adults most often have difficulty with is *multisensory* input, i.e., when trying to cope with lots of noise *and* light *and* movement they tend to become overstimulated, leading to tuning out or acting out behaviors.

# What does an occupational therapist (OT) do to treat sensory issues or sensory integration dysfunction?

With babies and younger children, an occupational therapist (OT) uses play to train their bodies to process and integrate sensory information, which means the sessions are usually fun for the kids. The OT might apply deep pressure using massage or rolling a large ball over the child, work with swings or spinning toys like a Sit n Spin, and use clay, finger-paints, and sand, among other activities. With older children and adults, a highly trained OT will work with them one on one using evidence-based sensory techniques to increase the integration of sensory inputs within the nervous system as well as to help them identify what sensations are problematic for them, and suggest calming and focusing activities such as jumping on a mini-trampoline, doing martial arts or yoga, brushing themselves with a special plastic brush, and so on.

OTs who are sensory smart may work in schools, in sensory gyms, or privately in a client's home. They may work with their clients in regular sessions or on a consultation basis.

## What is a sensory diet?

A sensory diet is not about food but activities. Children who have difficulty processing sensory information need to engage in certain activities throughout the course of the day to prevent them from going into sensory overload, that its, feeling overwhelmed by their sensitivities or their cravings

for movement, deep pressure against the skin and joints, etc. An OT can work with parents and teachers to figure out a sensory diet that can be incorporated into everyday life. Helpful sensory diet activities might include doing chair pushups in school, taking breaks in a quiet, dark area to get away from stimulation, or even fidgeting with a rubbery Koosh ball.

# Is this yet another "new" syndrome?

Sensory processing disorder, originally known as sensory integration dysfunction, was first identified in the early 1970s, but it has remained relatively unknown outside of the occupational therapy community. Parents and professionals are now starting to realize that a child who impulsively seeks movement or has great difficulty listening to the teacher in a noisy classroom is not necessarily a child with ADHD, and that a child who flaps his hands and who shakes his head and gets upset when touched lightly is not necessarily autistic. Many kids with sensory issues do not have another diagnosis, and in general, even if they do have ADHD or autism, treating the sensory issues can make other treatments for that diagnosis far more effective. Reaching a behavioral goal, such as having the child stay in his chair, is much easier when the sensory issues causing him to constantly pop out of it are addressed. Research studies conducted since 2009 have proven that SPD is a very real disorder with a neuroanatomical basis. For example, a 2016 study using tensor diffusion imaging (an advanced form of MRI) found differences in water molecule diffusion (key indicator of brain activity) in the back of the brain in people diagnosed with SPD whereas these differences were found in the front of the brain in people diagnosed with autism and ADHD. These studies provide neuroanatomical proof validating this condition.

## Do children outgrow sensory issues?

Over time, as the nervous system matures and they get more life experience, most kids learn to cope with their confusing sensations a little better, but many continue to have sensory issues that may interfere with their daily living well into adulthood. There are teenagers and adult who have sensory processing disorder, and it causes them difficulty socializing, driving, working in certain environments, changing classes in school, etc. Fortunately, occupational therapy, a sensory diet, selfregulation techniques, and technology can all make a huge difference at any age. Our book offers practical solutions for an exhaustive number of situations in which sensory issues can be deeply distracting or disturbing to a person. We offer strategies and tips for getting your whole family doing activities that will help your kids with sensory issues even as you're all having fun.

## What's new about this edition?

Since the last edition of our book in 2009, technology became a much greater influence in everyone's lives. Often, kids with sensory processing differences benefit tremendously from using technology to help them learn and socialize, but the stigmatizing of technology too often keeps them from getting the help they need. At the same time, kids and teens with sensory issues are often more prone to spend a lot of time looking at screens for a variety of reasons. We wanted to address this challenge and help parents find the right balance for their unique child with sensory processing issues. We've also added guidance on helping kids avoid screen time interfering with sleep.

We also wanted to be sure parents had even more techniques for helping their kids with selfregulation when it comes to mood, focus and activity level. We've added information on the benefits of mindfulness practices such as yoga and meditation.

The new edition reflects the latest understanding, insights, research and strategies for helping the oftentimes extremely severe sensory challenges seen in people with autism.

Finally, we've updated and added to the excellent resources our book has become known for, helping parents find clothing and grooming their kids will tolerate, sensory friendly entertainment resources, and more.