



# **Does Your Child Have Sensory Processing Disorder?**

Learn the signs, better understand Sensory Processing Disorder, manage a misunderstood child and explore treatment options.



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# Does Your Child Have Sensory Processing Disorder?

Sensory processing disorder (SPD) is a neurological condition that results from immature nervous system development. It can cause children to find everyday situations excruciating and often creates an aversion to noise, light, touch and other stimuli.

It's common for SPD to coincide with other diagnoses. These may include:

- Dyspraxia
- Apraxia
- Developmental delays
- Attention deficit disorder/hyperactivity
- Learning disabilities
- Reading difficulties
- Executive functioning difficulties
- Attachment disorders
- Autism spectrum disorders
- Hypotonicity
- Down's syndrome
- Premature births

Sensory processing disorder is a type of “hidden disability” that the average person may not recognize. Someone who has trouble with sensory processing doesn't appear to have a disability, but internally they may be struggling to cope with the barrage of information that constantly surrounds them in their world.



Your child may have SPD if you see characteristics like:

- They seem smart but struggle to achieve milestones.
- They avoid certain foods, textures and activities.
- They prefer certain types of movement and physical pressure.
- When obstacles arise, they have a low tolerance for frustration.
- Emotional meltdowns are common.
- Social experiences trigger avoidance behaviors.
- They don't seem to play like other children.
- Noises and other sensory stimuli upset them.
- Picky eating behavior.

Before discovering their child's diagnosis, many parents describe a feeling that something is amiss with their child's development, but they can't put their finger on it. A diagnosis of sensory processing disorder helps the pieces fall into place.

Here is a poem that captures the experience of many children with SPD. Do you see your child described in this poem?

### THE MISUNDERSTOOD CHILD

by Kathy Winters

I am the child that looks healthy and fine.  
I was born with 10 fingers and toes.  
But something is different,  
somewhere in my mind,  
And what it is, nobody knows.

I am the child that struggles in school,  
Though they say that I'm perfectly smart.  
They tell me I'm lazy—can learn if I try—  
But I don't seem to know where to start.

I am the child that won't wear the clothes  
Which hurt me or bother my feet.  
I dread sudden noises, can't handle most smells,  
And tastes—there are few foods I'll eat.

I am the child that can't catch the ball  
And runs with an awkward gait.  
I am the one chosen last on the team  
And I cringe as I stand there and wait.

I am the child with whom no one will play—  
The one that gets bullied and teased.  
I try to fit in and I want to be liked,  
But nothing I do seems to please.

I am the child that tantrums and freaks  
Over things that seem petty and trite.  
You'll never know how I panic inside,  
When I'm lost in my anger and fright.

I am the child that fidgets and squirms  
Though I'm told to sit still and be good.  
Do you think that I choose to be out of control?  
Don't you know that I would if I could?

I am the child with the broken heart  
Though I act like I don't really care.  
Perhaps there's a reason God made me this way—  
Some message he sent me to share.

For I am the child that needs to be loved  
And accepted and valued too.  
I am the child that is misunderstood.  
I am different—but look just like you.





# The Biological Basis of Sensory Processing Disorders

When your child exhibits the signs of sensory processing problems, you might wonder, “Why my child? What’s causing this?” Although there’s no clear answer to “why,” there is extensive research into the “what” behind sensory processing disorders.

A breakthrough study<sup>1</sup> at UC San Francisco showed a clear biological basis for SPD. Brain researchers found that children affected with SPD have quantifiable differences in brain structure from other children of the same age. Although these differences have been more thoroughly researched as they relate to autism and attention deficit hyperactivity disorder (ADHD), they are clearly shown in MRIs for children with SPD.

In fact, researchers also discovered that SPD is actually more prevalent in children than autism and is just as common as ADHD. This means there is compelling biological evidence that SPD should be considered a distinct diagnosis instead of being lumped in with autism, ADHD and other neurodevelopmental disorders.

Parents of children with SPD sometimes report that their child’s diagnosis creates a frightening and isolating situation. Their child struggles to do the same activities as neurotypical children. But SPD is less well known than a disorder like autism, and you may not feel that you fit into the autism community and other supportive groups.

You are not alone. SPD is surprisingly common. About 10 percent of the pediatric population in the United States has severe over- or under-responsiveness to sensory stimuli, and up to 20 percent of the adult population<sup>2</sup> may be affected by a sensory processing disorder that impacts their daily lives.

# Poor Body Awareness

Children with sensory processing disorders often show a lack of body awareness or proprioception<sup>3</sup>. As a parent, you may be surprised to discover that your child has trouble keeping track of their body in the space around them. For people without SPD, this comes naturally.

There are two sides of limited body awareness: sensory modulation and sensory discrimination. In sensory modulation hypersensitivity and hyposensitivity are two polar ends of a continuum of differences in between. Here's how to tell the difference.

A **hypersensitive** child who shows poor awareness of their body might:

- Not understand where their body parts are.
- Misunderstand how their body parts relate to one another.
- Have trouble coordinating their arms, legs, hands and feet.
- Struggle with getting dressed each day.
- Avoid situations that involve touch.
- Prefer not to put weight on their joints.
- Dislike the sensations of jumping, pushing or even standing.
- Complain about lifting heavy things.

A **hyposensitive** child who shows poor awareness of their body might:

- Intentionally jump, crash and bump into objects.
- Stamp or slap their feet while walking.
- Enjoy banging things around.
- Rub, bite and suck on things.
- Want to chew on things like pencils and shirt sleeves.
- Crack their knuckles.
- Desire being wrapped up tightly in blankets.
- Press very hard when writing or pushing buttons.
- Break things frequently.

Next let's take a look at another aspect of SPD, which involves the active movement of the body, balance and coordination.

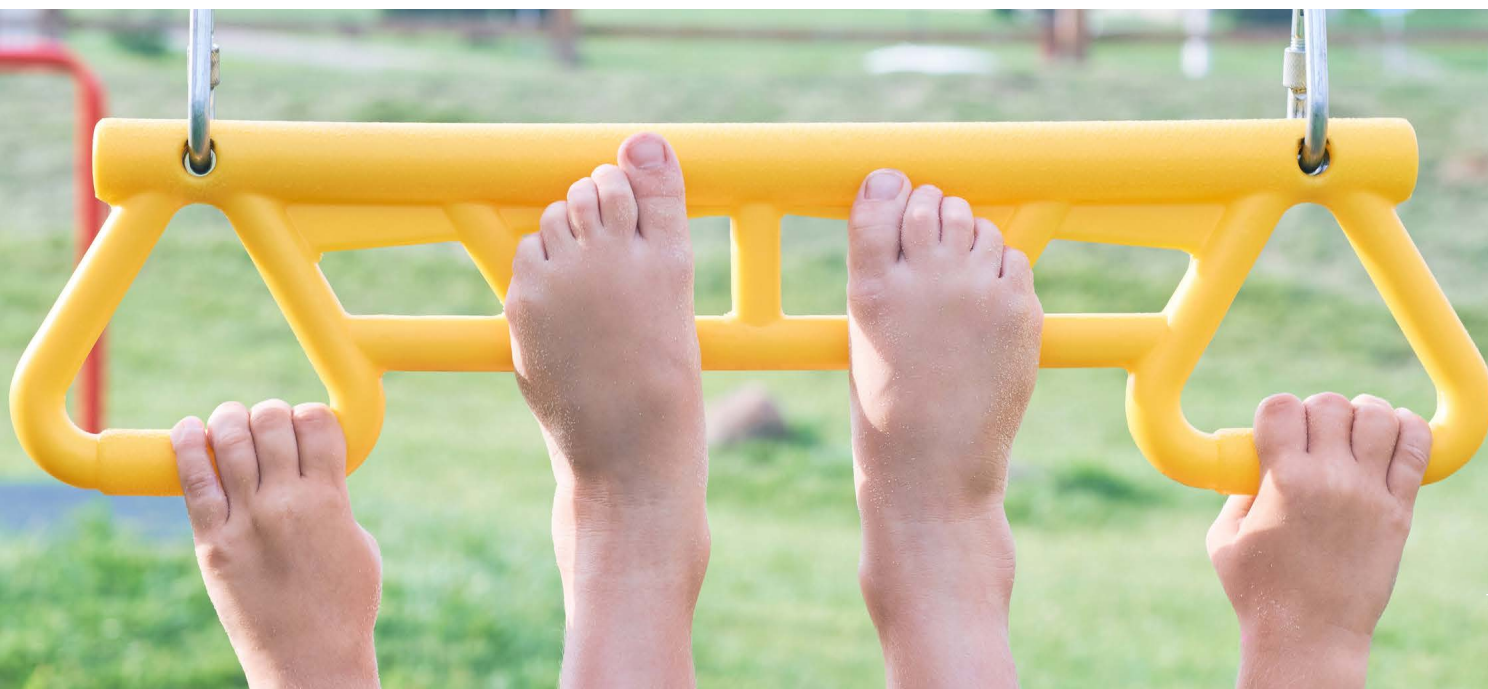
# Struggles with Body Movement

An intolerance for movement is very common with SPD, and your child may lack balance and coordination as part of their struggle with vestibular movement. Children with this disorder may appear to be uncomfortable in situations that others take for granted, like riding in a car, taking an elevator or playing on a playground.

## Does your child exhibit any of these signs of **body movement intolerance**?

- They dislike any activity with spinning, sliding or swinging.
- Their movements are always slow and they prefer to be sedentary.
- They appear extremely cautious and hesitate to take risks.
- It's easy for them to become car sick and motion sick.
- They appear clumsy and easily lose their balance.
- They don't seem to understand what you mean when you encourage them to move or change positions.

Gravitational insecurity is also common due to your child's sensory processing challenges. They may move through the world feeling unstable, as if the ground could easily slip from beneath them.



### Common signs of **gravitational insecurity** include?

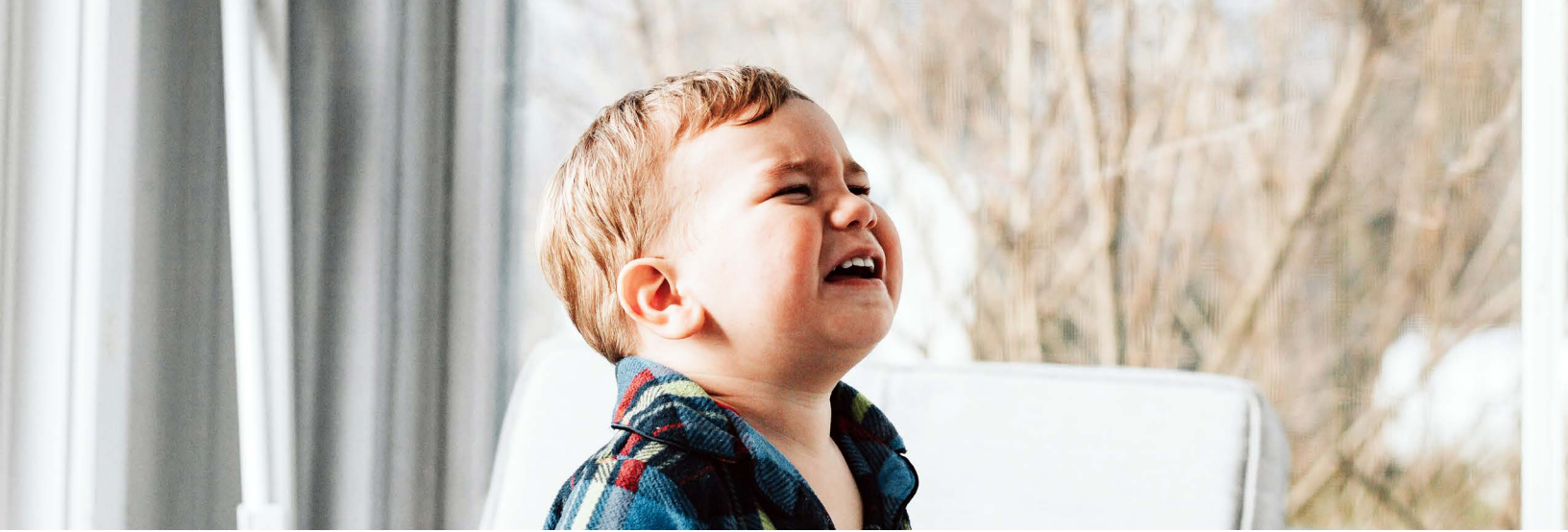
- Fear or intense terror of falling while on stable surfaces.
- Avoidance of small bumps and jumps like curbs and steps.
- Anxiety about allowing their feet to leave the ground.
- Tight clinging to a trusted adult or handrail.
- Fear of having their body moved by someone else.
- Intense dislike of upside-down movements where the head is flipped over.
- Catastrophization of daily activities, like believing a small movement could throw them into outer space.



### Children with an **overtolerance for movement** (hyposensitivity) commonly:

- Shake, rock or jump repeatedly and vigorously.
- Enjoy spending lots of time on swings, see-saws, teeter-totters or trampolines.
- Crave bouncing movements.
- Exhibit thrill-seeking behavior.
- Always seem to be moving and have trouble sitting still.
- Never seem to get dizzy, even after long periods of spinning.





## Intolerance to Touch

Another aspect of SPD involves touching other people and being touched by them. Children with SPD often exhibit high anxiety about being touched in certain ways. Unfortunately, this sometimes leads to an assumption that the child has a behavior problem rather than a sensory processing problem.

Research on genetics and phenotyping shows that SPD “occurs independently of recognized childhood psychiatric diagnoses but is also a relatively frequent comorbid condition with recognized diagnoses.” This means it might happen at the same time as a psychiatric disorder, but it is a separate issue.

How does your child react to being touched? Here are some hallmarks of **touch intolerance**:

- An infant rejects cuddling and doesn’t feel calmed by it.
- A child exhibits anxiety or hostility about being touched lightly.
- They may have the urge to scratch or rub a spot that has been touched.
- They have a strong negative reaction to lining up with other children, being approached from behind or being touched suddenly.
- A hug might bring mixed emotions, where they desire the feeling of a strong hug but dislike the feeling of a quick squeeze.
- Minor scrapes and scratches become a big issue that the child may bring up for days or weeks afterward.

Human touch isn't the only sensation that can disturb a child with sensory processing challenges. The touch of other things may be intolerable too, like:

- Fabric
- Blankets
- Stuffed animals
- Shirt collars
- Turtlenecks
- Elastic waistbands
- Clothing tags
- Belts
- Hats
- Sock seams
- Certain shoes
- Washcloths/towels
- Bathwater
- Messy materials like sand or glue
- Walking barefoot on grass
- Being dipped into the water
- Having their fingernails cut
- Getting their hair cut

What if your child doesn't avoid touch but instead seems to be numb to it or not even realize when it's happening? Read on to learn about overtolerance to touch.



# Overtolerance to Touch

Some children appear numbed to the touch of people or objects that make contact with them. This issue arises because their sensory processing issue prevents them from correctly identifying the sensory information that is presented by their body and transmitted to their brain.

Generally speaking, these children seem unaware of touch until it is brought to their attention and still may have difficulty understanding it even with the guidance of an adult. In school, they may struggle with activities like cutting shapes out of paper and describing the temperature outdoors.

Do you see these signs of **touch overtolerance** in your child?

- They can't identify which part of their body is being touched without looking.
- They don't recognize the pain of pets, squeezing too hard.
- They seem unaware when other children are experiencing pain.
- When they get a scrape or bruise, they exhibit minimal reaction.
- Only a very heavy touch gets their attention.
- They find their own hands difficult to manipulate.
- It's difficult for them to use things like zippers, buttons, crayons, scissors and forks.
- They struggle to perceive textures, shapes, sizes and temperatures.
- They have a fear of the dark.

Next we'll look at the challenges that children with SPD experience when trying to comprehend auditory and verbal information.







## Challenges with Auditory and Verbal Information

It is very common for children with SPD to struggle with perceiving auditory and verbal information. Words and sounds can seem like a jumbled mess, and simply experiencing sound can be overwhelming and exhausting for your child. Or they might enjoy sound so much, it's exhausting for everyone else in the household.

Here are some common signs of **auditory hypersensitivity**:

- Oversensitivity to sounds in everyday situations.
- An extreme reaction to loud noises like fire alarms and babies crying.
- Intense dislike of the vacuum cleaner, dishwasher or hairdryer.
- A tendency to cover their ears and run away from noises.
- A desire to yell or scream over the sound of noises.
- Inattention in noisy situations.
- Failure to understand directions or act upon requests.
- Confusion about the direction from which a sound is originating.



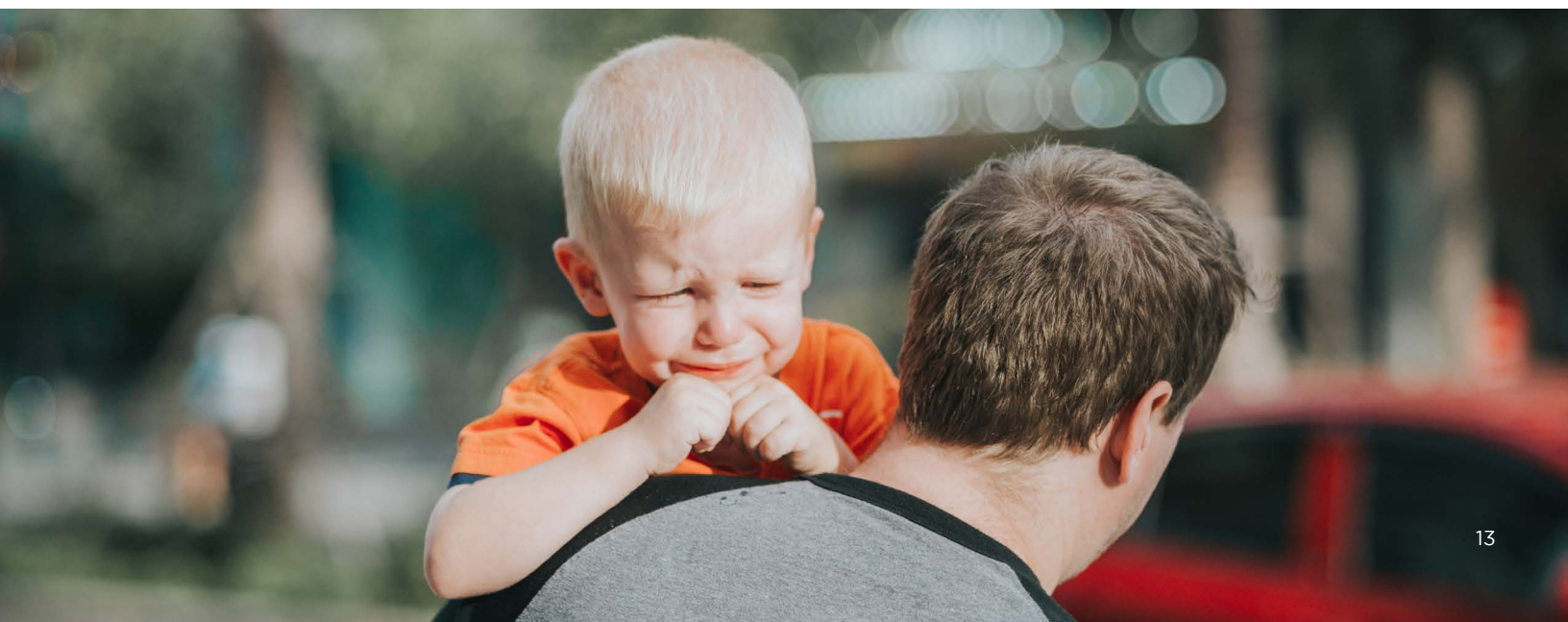
On the flip side, if your child has **auditory hyposensitivity** they might:

- Crave being in loud environments with crowds of people.
- Scream, yell and make other loud noises excessively.
- Talk for long periods without stopping.
- Have a constant desire for music.

You may want to consider therapy for auditory and verbal processing problems if your child exhibits the following behaviors:

- Confusion when hearing sounds
- Difficulty repeating words back
- Trouble remembering names/places
- Requests repetition of words
- Easily distracted by sounds
- Fear of having their body moved by someone else.
- Intense dislike of upside-down movements where the head is flipped over.
- Catastrophization of daily activities, like believing a small movement could throw them into outer space.

In addition to or instead of auditory challenges, some children exhibit visual challenges. Now let's review the common signs of visual difficulties in children with SPD.





## The Visual System

Visual adaptation can be a big challenge for children with SPD. After all, we live in a very visual world, and we often are expected to evaluate and act upon information based purely on what we see.

If your child has trouble interpreting the visual stimuli in their environment, it will present as either hypersensitivity (intolerance) or hyposensitivity (overtolerance) to seeing things. Here are some examples.

A **visually hypersensitive** child:

- Is oversensitive to light and has a dramatic reaction to sudden illumination.
- Is easily distracted by things in their visual field.
- Complain that printed pages are too bright or that the words jump around.
- Usually avoids eye contact.
- Prefers to wear sunglasses or a hat.
- Startles easily.

A **visually hyposensitive** child:

- Seems that they can't take their eyes off moving objects.
- Seeks out toys with bright lights and moving parts.
- Craves seeing fast or spinning people and machines.

In addition to the above, your child may struggle with **ocular motor difficulties** if they experience:

- Wanting to hold on to something or someone coming down the stairs.
- Being afraid of jumping down from surfaces.
- Struggling to learn their letters.
- Difficulty with handwriting/drawing/copying/coloring.
- Difficulty catching a ball.
- Avoiding participating in sports.

Or they may have difficulty with **visual spatial skills** if they:

- Bump into objects and others.
- Seem to lack spatial boundaries.
- Get too close to people.
- Sit on the periphery of a group.
- Don't space letters and words on a line correctly.
- Avoid participating in sports.

Other areas of concern in the visual perceptual system may be:

- Visual figure ground: Finding one pair of socks in a busy drawer
- Visual discrimination: Spotting the difference in near-identical items
- Visual form constancy: Understanding different fonts but still the same letter
- Visual memory: Memorizing what you see
- Visual-sequential memory: Remembering what you see in the correct order
- Visual closure: Completing visual "parts" to form a "whole" in the mind

If you recognize your child in the descriptions above, they may be experiencing a sensory processing problem in their visual system.

# A Total Approach to Treatment

Understanding your child's sensory processing disorder is about understanding the challenges of their unique central nervous system. In order for them to develop higher-order thinking and certain neuro-developmental pathways, they may need extra support through therapy.

A Total Approach offers a type of children's occupational therapy that considers multiple approaches to different phases of development. It combines the latest in sensory processing disorder research with a holistic, family-centered, child-led approach to therapy.

If your child has challenges with sensory processing, A Total Approach can help them learn how to process information more nimbly and improve their own positive self-perception.

Here are some heartfelt words from the parent of a child who participated in therapy programs at A Total Approach:

"My youngest son had major issues with his speech and hearing. He essentially was not talking, saying single words and labeling but having a very hard time communicating ... I could cry talking about all the progress he has made. His speech blows me away. We now have conversations, he has a sense of humor, he tells me he wants to do it. I feel like I finally got to know my little boy."

**—Nichole**

To learn more about resources for children with sensory processing disorder, please contact us. We welcome you to experience A Total Approach and see the difference it makes for your child.





## About A Total Approach

We offer a child-led process that welcomes the family into the therapy environment. Our dedicated professionals include occupational therapists and speech-language pathologists who support each child's individual needs.

With the holistic developmental approach of A Total Approach, we go beyond a single deficit performance issue or anxiety and examine how the child is forming their total sense of self within their world. We also consider their social-emotional adaptation and skill.

We welcome you to contact us for more information about our unique approach to helping children succeed.

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