

Sensory Integration Dysfunction

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What is SID?

Sensory Integration Dysfunction (SID) is a disability rooted in the brain's inability to correctly process sensory information. Children with SID have great difficulty responding appropriately to everyday stimuli. There are three ways in which children with SID are affected by their disability; some seek out magnified sensory experiences in relation to those of their peers, some avoid sensory experiences that occur seemingly unnoticed by their peers, and some demonstrate difficulty with motor skills.

Sensory Integration Dysfunction is a symptom of one of two occurrences in the reception of sensory information. The first is that sensory information is either overwhelmingly present or absent for processing. With too much sensory information the brain overloads and with too little sensory information the brain starves for more. (Kranowitz 1998) Hence there are those children who seek sensory experiences and those who avoid them.

Sensory Integration Dysfunction is also due to neurological disorganization. The brain may not receive sensory information

efficiently because of a “disconnect” or inconsistent processing. Also the brain may not be able to connect the sensory information to other sensory messages which elicit a meaningful response.

(Kranowitz 1998).

The last reason for Sensory Integration Dysfunction is linked to the brain’s inability to process sensory information. This deprives the child with SID of the feedback necessary to behave in a purposeful way. (Kranowitz 1998)

What does SID look like?

Sensory Integration can present itself very differently depending upon the sensory experiences, type of Sensory Integration Dysfunction, and degree of dysfunction. It might be easiest to appreciate what sensory seeking and sensory avoiding SID look like in the form of a chart. The following instances are not all inclusive and are more geared toward what I have seen in the pre-school, kindergarten, and child care programs I have worked in and am currently working in.

<u>Sense</u>	<u>Sensory Seeking</u>	<u>Sensory Avoiding</u>
Auditory	<ul style="list-style-type: none"> • Needs background noise to accomplish tasks • Is constantly making sounds with mouth/tapping pencils 	<ul style="list-style-type: none"> • Startles and has difficulty composing after surprising or loud noises • Covers ears with hands
Visual	<ul style="list-style-type: none"> • Stares intensely at things • Blinks excessively/or not at all • Constantly looking around 	<ul style="list-style-type: none"> • Requests the lights be turned off • Avoids eye contact • Covers eyes
Taste/Smell	<ul style="list-style-type: none"> • Puts anything that fits in their mouth • Eats/drinks any food (even others') • Doesn't notice strong smells 	<ul style="list-style-type: none"> • Avoids particular tastes and smells • Very "picky" eater

<u>Sense</u>	<u>Sensory Seeking</u>	<u>Sensory Avoiding</u>
Touch	<ul style="list-style-type: none"> • Doesn't maintain personal space • Doesn't seem to be aware of pain or temperature 	<ul style="list-style-type: none"> • Avoids certain textures in clothing and the environment • Avoids getting messy

Some children with Sensory Integration Dysfunction also experience difficulty with motor movements. These behaviors may or may not be directly associated with sensory seeking or sensory avoiding SID. Some children with SID exhibit low muscle tone, poor endurance, and avoidance of physical activity. These children might become nervous when climbing, jumping, or when they are picked off the ground. Other children with SID seek out movement, take what their peers consider extreme risks (like jumping off the top of the playscape), and are overly affectionate with others. These children may be accident prone. Either way, children with SID's sensory seeking or sensory avoiding behavior when it presents itself in movement tends to interfere with their lives.

How do we diagnose SID?

Everyone could say they have a touch of Sensory Integration Dysfunction. You might be the person who cringes at the sight of an operation on the Discovery Channel, or the person who needs to be a little closer to the person they're talking to than others, or the person who just can't seem to make a basket during Monday night basketball, but how do we determine who really suffers from SID?

Often times children are screened as a pre-requisite to entering a pre-school, kindergarten, or early childhood care center. The screening usually covers the spectrum of a child's development, cognitive, emotionally, and physically. A screening is a quick peripheral look at an aspect of a child's development. A screening is intended to alert the assessor of possible problems.

If a screen suggests that there might be issues related to Sensory Integration Dysfunction, then an evaluation would follow. An evaluation, unlike a screening, is an in depth examination of a particular aspect of child's development. The Sensory Integration and

Praxis Tests (SIPT) is the primary assessment for children aged 4.5 to 8 years old. (SPD Network 2008)

What are the Educational Modifications/Accommodations for SID?

Many people would argue that the best modifications a teacher can make are preventative in nature. At the school I teach in, our occupational therapist is a strong advocate for a balanced sensory diet. One of the most recognized Sensory Integration Dysfunction experts, Carol Stock Kranowitz, M.A., tells her readers "a balanced sensory diet is like a fitness plan. It will enhance every child's ability to function smoothly, whether the child is in or out of sync."

(Kranowitz 1998) In my experience, a few minutes of sensory diet can prepare a child for the better part of a morning's worth of learning. A sensory diet includes activities that help to regulate a child's sensory system. A child with SID who is sensory seeking requires a different sensory diet from the child who is sensory avoiding.

The child with Sensory Integration Dysfunction who is sensory seeking will benefit from alerting activities. The following activities provide the child with a chance to awaken their senses:

- Eating foods with different textures: crunching dry cereal, sucking applesauce through a straw, sucking on an ice cube.
- Touching tactile objects: playing with playdough, uncooked rice, or cold spaghetti, playing pass with a rubber spiked ball, massage with differently textured objects like sponges or brushes.
- Whole body movement: jumping on a trampoline, bouncing a beach ball, riding a sit and spin.

The child with Sensory Integration Dysfunction who is sensory avoiding will benefit from calming activities. The following activities provide the child with a chance to minimize their response to stimuli:

- Eating an enjoyable food: sucking on a spoonful of peanut butter, sucking a pacifier.
- Applying pressure: slowly applying deep pressure to particular parts of the body (these children are obviously more sensitive than others as to where they will enjoy

massage), gently pulling or compressing their joints, back rubbing, rolling them up in a “blanket burrito”, using sponges to massage.

- Sitting: lap sitting, rocking, swaying, wearing a weighted vest or placing a weighted animal in their lap.
- Lessening stimuli in the environment: turning off the lights or background music, an area of refuge.

Lastly both types of children with Sensory Integration

Dysfunction benefit from regulatory activities. The following activities help to establish a consistent motor response to sensory stimuli:

- Chewing: chewing things like gum, dried fruit, or teething toys.
- Consistent motor tasks: hanging from a jungle gym, carrying a weighted ball, pushing on a wall.
- Positioning: sitting upside-down, lap sitting, standing at a desk instead of sitting, leaning against a wall.

In conclusion

Children with Sensory Integration Dysfunction have a little in common with all of us. And even though we’re all a little different, in

every year of preschool or kindergarten that I have taught the children with SID and their peers all enjoy the accommodations and modifications that come with this disability. While I wouldn't wish SID on any child, it is almost a blessing to the teacher who has a child with SID in their class. Having a child with SID helps us as teachers to become more aware of how our classroom environment affects the children.

Bibliography

- Fisher, Anne G., Sc.D., O.T.R., Elizabeth A. Murray, Sc.D., O.T.R. and Anita C. Bundy, Sc.D, O.T.R. (1991) *Sensory Integration: Theory and Practice*. Philadelphia: F. A. Davis.
- Heller, Sharon Ph.D. *Too Loud Too Bright Too Fast Too Tight: What to do if you are sensory defensive in an overstimulating world.* New York, NY: Harper Collins Publishers.
- Kranowitz, Carol Stock, M.A. *The Out-of-Sync Child: Recognizing and Coping with Sensory Integration Dysfunction*. New York, NY: The Berkley Publishing Group.
- Kranowitz, Carol Stock, M.A. *The Out-of-Sync Child Has Fun: Activities for Kids with Sensory Integration Dysfunction* New York, NY: The Berkley Publishing Group.
- Trott, Maryann Colby, with Marci K. Laurel & Susan L/. Windeck (1993). *Sense Abilities: Understanding Sensory Integration*. Tucson, AZ: Therapy Skill Builders.
- Wilbarger, Patricia, & Julia Leigh Barger (1991). *Sensory Defensiveness in Children Aged 2-12: An intervention Guide for Parents and Other Caretakers*. Santa Barbara, CA: Avanti Educational Programs.
- Williams, Mary Sue, & Sherry Shellenberger (1992). *An Introduction to "How does your Engine Run?" The Alert Program for Self Regulation*. Albuquerque, NM: Therapy Works.