

**Goal: Be able to identify an appropriate referral for a Sensory Processing Disorders (SPD)**

What is Sensory Processing? Concept was developed by Jean Ayres, PhD, OTR (1954-1988). Sensory Processing or Sensory Integration is the way the brain works. We all have sensory processing skills. It is our ability to take in information through our senses from our environment, organize it, interpret it and make adaptive responses. It includes all of our senses: Vision, Smell, Taste, Hearing, and Touch along with two other senses Proprioception and Vestibular.

**Proprioception:** Tells us where our joints and muscles are. How much pressure to apply.

Proprioception dysfunction causes children to misinterpret sensations, received through their muscles and joints about body positions and movement. It prevents kids from knowing where they are in space and what their bodies are doing. It affects their posture, motor control, sense of personal space and sense of self.

**Vestibular:** Tells us where our head is in space, our sense of head position and movement governed by the inner ear.

Vestibular dysfunction impedes a child’s overall development. It may affect their muscle tone, balance, coordination, bilateral skills, gross motor skills, auditory processing, visual-spatial skills and emotional security.

**SENSORY PROCESSING DISORDERS (SPD) \*\***

Sensory Modulation Disorder (SMD)	Sensory Discrimination Disorder (SDD)	Sensory-based Motor Disorder (SBMD)
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SOR    SUR    SS

Postural Disorders    Dyspraxia

SOR= Sensory Over-Responsivity  
 SUR= Sensory Under-Responsivity  
 SS = Sensory Seeking/Craving

\*\* Above chart adapted from Sensational Kids, Lucy Jane Miller Ph.D OTR/L

**Symptom clusters** suggestive of a Sensory Processing Disorder adapted from Infant/Toddler Sensory Profile Caregiver Questionnaire birth-36 months, Winnie Dunn Ph.D OTR/L with Debora B. Daniels MA CCC-SLP

**General Processing**

Young infants less than 6 months very active  
 Seems unaware of people coming and going into a room

Child's behavior deteriorates when there is a change in schedule  
Seeks excessive, running, jumping, crashing  
Sedentary  
Becomes disorganized with movement  
Poor fine and gross motor coordination  
Seems irritable as compared to children of the same age/tantrums easily/low frustration tolerance  
Tantrum is out of proportion to incident, unable to calm self within a reasonable amount of time  
Unable to sit at a table for table top activity unless strapped into a highchair  
Parents reporting unable to go into stores such as Wal-Mart, Target or Multisensory environment without their child running, crying, tantrums and/or is unable to sit in shopping cart  
Difficulty falling asleep unless held or bounced/or easily awakened  
Lacks ability to play with developmentally appropriate toys  
Seems to not notice or cry when hurt or overly reacts to getting hurt  
Poor endurance/tires easily/weak grasp

### **Auditory Processing**

Hyper sensitive to sounds, typically ambient sounds in the environment which are the low frequency sounds such as a vacuum, water running, blender, hair dryer, and lawn mower  
Not responding to sudden noises such as the phone, dog barking for children under the age of 6 months  
Taking a long time to respond to their name or to familiar voices  
Having to speak loudly to get a child's attention, appears to be ignoring you  
Having to touch the child to gain their attention  
Seeking to make noise with their mouth  
Distracted in noisy environment and unable to eat when there is noise

### **Visual Processing**

Child can only handle being backwards in shopping cart versus face forward  
The child enjoys looking at objects that are shiny or moving such as things that spin (ceiling fan, toys with wheels etc)  
The child avoids eye contact  
The child either enjoys looking at them self in the mirror or does not recognize themselves in the mirror  
Becomes very excited during TV shows or video games that have fast paced bright colors  
Prefers to be in the dark  
Reacts to all faces the same way (< 6 months)

### **Tactile Processing**

Seems unaware of wet or dirty diapers  
Does not like being held or cuddled/held  
Does not like having their hair washed  
Does not like having their face cleaned or nose wiped  
Distressed over having nails cut

Difficulty with certain clothing long sleeve/short sleeve terrycloth/cotton problem with socks or shoes

Becomes anxious when walking on grass, unlevel surface sand

Seeks feeling vibration from dryer, speakers etc

Bumps into things not noticing them

### **Vestibular Processing**

Appears clumsy, uncoordinated, trips easily

Problems with balance activities

Seeks running, jumping crashing

Spins self

Using the body as a whole

Cries with getting into car seat/arches back into extension does not like riding in the car

Cries when getting out of car seat/wants to stay in it

Head and neck with cervical rotation to one side

Does not like when their feet leave the ground

Does not like or resists having their head tipped back for bath or diaper change

Positions their heads upside down to look through legs/hangs over end of chair upside down

Requires more physical support than others their age (low tone)

Does not like being in a swing or swung

Seeks swinging and spinning

### **Oral Sensory Processing**

limiting foods by taste or texture

limiting food by less than 20 preferred foods

need to mouth objects past 18 months

not ever developmentally having the need to mouth objects

refusing to try new foods

resists having teeth brushed

licking or chewing non-food items

difficulty with suck, breathe swallow synchrony

Questions/comments

Future workshop 2 of 3 to discuss/review Sensory Processing Disorders and relationship to Modulation, differences between SS and SUR/SOR, SDD and SBMD.

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