# **Integrating Sensory Diets**

Practical Techniques for the Classroom and the Home

Author: Victoria Cann, MA Ed, OTR/L

#### **Sensory Processing**

Sensory processing refers to the way the nervous system receives messages from the senses and turns them into responses. Our bodies process and organize input from oneself and the environment in order to interact and function effectively. We do not all process information the same or react the same to input.



### **Sensory Systems**

- Visual vision
- Auditory hearing
- Tactile touch
- Olfactory smell
- Gustatory taste
- Vestibular head movement in space
- Proprioception sensations from muscles and joints, body in space
- Interoception internal sensations such as hunger

#### **Sensory Processing Disorder**

Sensory processing disorder or sensory integration dysfunction is a condition in which multisensory integration is not adequately processed; therefore, resulting in responses to demands in the environment being inappropriate or not social acceptable.



#### Symptoms of Sensory Processing Issues

<u>Hypersensitivity</u> - extreme responses to stimuli such as loud noises, touch, or scents. May be overly sensitive and fearful in crowds. "Over responder" <u>Hyposensitivity</u> - lack sensitivity to the stimuli such as high pain tolerance, sensory seeking, always "on the go", clumsy. "Under responder"

Children can have both hyper and hypo sensitivity. They can have extreme reactions or meltdowns and may flee situations.

# Visual System

Hyper-responsiveness	Hypo-responsiveness
<ul> <li>Complains of bright lights</li> <li>Struggles with sudden changes in light</li> <li>Complains of headaches from lights</li> <li>Distracted by cluttered spaces</li> <li>Avoids eye contact</li> </ul>	<ul> <li>Attracted to spinning or moving objects</li> <li>Difficulty with eye-hand coordination</li> <li>Difficulty reading and writing</li> <li>Squints eyes</li> <li>Flaps objects in front of eyes</li> </ul>

# Auditory System

Hyper-responsiveness	Hypo-responsiveness
<ul> <li>Startles easily</li> <li>Dislikes noisy places</li> <li>Fearful of noise</li> <li>Shushes others</li> <li>Easily distracted by noise</li> <li>Hums to block out noise</li> </ul>	<ul> <li>Unaware of sounds</li> <li>Makes silly sounds at inappropriate times</li> <li>Talks to self</li> <li>Difficulty locating sounds</li> </ul>

# Tactile System

Hyper-responsiveness	Hypo-responsiveness
<ul> <li>Withdrawls when touched</li> <li>Refuses certain texture food</li> <li>Dislikes having face washes, nails cut, hair brushed</li> <li>Avoidance of messy play</li> <li>Clothing preferences</li> <li>Avoids affectionate touch</li> </ul>	<ul> <li>Bumps into others</li> <li>High pain tolerance</li> <li>Doesn't notice runny nose, messy face</li> <li>Lacks personal space</li> <li>NEEDS to touch everything</li> <li>Unintentionally rough when playing, petting animals</li> <li>Seeks out messy play</li> </ul>

# **Olfactory System**

Hyper-responsiveness	Hypo-responsiveness
<ul> <li>Overly sensitive to smells</li> <li>Anxious around smells</li> <li>Holds nose in response to certain smells</li> </ul>	<ul> <li>Smells unusual items</li> <li>Prefers strong scents</li> </ul>

# **Gustatory System**

Hyper-responsiveness	Hypo-responsiveness
<ul> <li>Dislikes mixed textures</li> <li>Resistant to new foods</li> <li>Avoids certain textures and temperatures</li> <li>Prefers bland foods</li> <li>Food cannot touch on plate</li> <li>Intolerance to teeth brushing</li> <li>Drooling</li> </ul>	<ul> <li>Licking objects</li> <li>Bites others</li> <li>Chews non-food items</li> <li>Prefers spicy food</li> <li>Hums all the time</li> </ul>

# Vestibular System

Hyper-responsiveness	Hypo-responsiveness
<ul> <li>Gravitational insecurity</li> <li>Resistant to swings, elevators</li> <li>Fear of unstable surfaces, heights</li> <li>Motion sickness</li> <li>Poor attention</li> <li>Easily fatigued</li> <li>Poor coordination, motor</li></ul>	<ul> <li>Constant movement, walks</li></ul>
planning, posture <li>Clumsiness</li>	around all the time <li>Craves movement</li> <li>Constantly fidgeting</li> <li>Impulsive movements</li> <li>Rocks in seat, leans back in chair</li> <li>Frequent falling</li>

## **Proprioception System**

<ul> <li>Too little pressure when writing and coloring</li> <li>Appears lethargic</li> <li>Bumps into people and objects</li> <li>Poor posture, body awareness, motor planning, and balance</li> <li>Too much pressure when writing and coloring</li> <li>Crashes into things</li> <li>Walks on toes</li> <li>Difficulty with fine motor skills</li> <li>Stomps feet, cracks knuckles, kicks chair</li> </ul>	Hyper-responsiveness	Hypo-responsiveness
	<ul> <li>Too little pressure when writing and coloring</li> <li>Appears lethargic</li> <li>Bumps into people and objects</li> <li>Poor posture, body awareness, motor planning, and balance</li> </ul>	<ul> <li>Too much pressure when writing and coloring</li> <li>Crashes into things</li> <li>Walks on toes</li> <li>Difficulty with fine motor skills</li> <li>Stomps feet, cracks knuckles, kicks chair</li> </ul>

### Introception System

Hyper-responsiveness	Hypo-responsiveness
<ul> <li>High pain tolerance</li> <li>Distracted by stress, heartbeat, digestion</li> <li>Always hungry or thirsty</li> <li>Over eats or drinks</li> <li>Uses bathroom frequently</li> <li>Dislikes temperature changes</li> <li>Fearful of vomit</li> </ul>	<ul> <li>Low pain tolerance</li> <li>Does not seem aware of when need to use bathroom</li> <li>Does not eat or drink enough</li> <li>Difficult toilet training</li> <li>Unaware of temperature changes</li> <li>Difficulty falling asleep</li> <li>Unable to identify feelings</li> </ul>

#### **Sensory Strategies**

A "sensory diet" is a carefully designed, personalized activity plan that provides the sensory input a person needs to stay focused and organized throughout the day. Sensory strategies are utilized to develop a carefully designed schedule of activities and accommodations tailored to provide appropriate sensory input to assist with attention, arousal, and adaptive responses.

### **Alerting Activities**

- Rapidly changing gross motor tasks
- Quick tempos
- Cold temperatures (including foods)
- Light touch
- Fast movement, especially spinning/rotational
- Sour, mint, or spicy flavors
- Using muscles for "heavy work" of pushing, pulling, against resistance

### **Calming Activities**

- Slow, steady, rhythmic, repeated, predictable input
- Slow and rhythmic music
- Firm, steady, pressure touch or squeezing (think massage or a big hug)
- Using muscles for "heavy work"
- Bland or sweet-tasting flavors
- Slow linear movements forward-and-back or head-to-toe

#### Visual System Adaptations/Accommodations

Hyper-responsiveness	Hypo-responsiveness
<ul> <li>Dim lights</li> <li>Natural lighting</li> <li>Hats with visor, sunglasses</li> <li>Visual supports and organizers</li> </ul>	<ul> <li>Visual tools such as I Spy books, mazes, word searches</li> <li>Physical prompts to point out information</li> <li>Physical guide when reading</li> </ul>

#### Auditory System Adaptations/Accommodations

Hyper-responsiveness	Hypo-responsiveness
<ul> <li>Calming auditory input</li> <li>Foam earplugs or headphones</li> <li>Soft calming music</li> <li>Travel in hallways before other students</li> </ul>	<ul> <li>Visual schedules or prompts</li> <li>Slow speech</li> <li>Seat child away from windows, hallways</li> <li>Whisper phones</li> <li>Tap out instructions or repeat directions</li> </ul>

#### Tactile System Adaptations/Accommodations

Hyper-responsiveness	Hypo-responsiveness
<ul> <li>Deep pressure, joint compressions</li> <li>Heavy work</li> <li>Alternative seating/flexible seating</li> <li>Play tough/theraputty</li> <li>Log roll, animal walks</li> </ul>	<ul> <li>Messy play</li> <li>Fidget tools</li> <li>Deep pressure, joint compression</li> <li>Velcro/stickers under desk</li> <li>Visual schedule</li> </ul>

### **Olfactory System Adaptations/Accommodations**

Hyper-responsiveness	Hypo-responsiveness
<ul> <li>Provide with scented tools</li> <li>Trial various scents for soaps, laundry detergent</li> </ul>	Limit scents in classroom

#### **Gustatory System Adaptations/Accommodations**

Hyper-responsiveness	Hypo-responsiveness
<ul> <li>Eat chewy snacks</li> <li>Suck thick liquids through straw</li> <li>Blow bubbles, kazoo, whistle, balloons</li> </ul>	<ul> <li>Crunchy snacks</li> <li>Cold food and drink</li> <li>Sour snacks</li> <li>Vibrating toothbrush</li> </ul>

#### Vestibular System Adaptations/Accommodations

Hyper-responsiveness	Hypo-responsiveness
<ul> <li>Prone activities</li> <li>Crawling, walking, sliding, rolling, skipping</li> <li>Movement obstacle course</li> <li>Wheelbarrow walk, scooter activities</li> <li>Yoga</li> </ul>	<ul> <li>Heavy work</li> <li>Alternative seating/flexible seating</li> <li>Fidget tools</li> <li>Movement throughout day</li> </ul>

#### Proprioception System Adaptations/Accommodations

Hyper-responsiveness	Hypo-responsiveness
<ul> <li>Heavy work</li> <li>Joint compressions</li> <li>Animal walks</li> <li>Crunchy/chewy food</li> </ul>	<ul> <li>Heavy work</li> <li>Joint compression/deep pressure</li> <li>Fidget tools</li> <li>Animal walks</li> </ul>

#### Introception System Adaptations/Accommodations

Hyper-responsiveness	Hypo-responsiveness	
<ul> <li>Calming rhythmical activities</li> <li>Yoga</li> <li>Meditation</li> <li>Social stories</li> <li>Timer for activities</li> </ul>	<ul> <li>Visual schedules</li> <li>Timer for activities</li> <li>Rotary movements</li> <li>Social Stories</li> </ul>	

#### Things to Think About

- Not everyone response in the same way to stimuli.
- A "sensory diet" should be developed by a professional and should be strictly followed.
- "Sensory diets" are developed to help a child remain in the "just right" mode for learning and interacting.
- "Sensory breaks" or "sensory diets" are not to be used as a reward or consequence as they are strategies that the person needs to be able to interact appropriately.

Questions or comments