Sensory Processing in the classroom & home

Candice Donnelly-Knox, OTR/L
Occupational Therapist

Our 5 Main

Vision (sight)
Auditory (hearing)
Gustatory (tasting)
Olfactory (smelling)
Tactile (touch)

Our "Hidden" Senses

Proprioception: receptors are located in our muscles and joints that send information to our brain as to where our body parts are in relation to one another.

Vestibular: receptors are located in the inner ear; activated by gravity and tells us where we are in space.

Interoception: the ability to sense and interpret the body's internal state, including the physical state and emotions.

What is Sensory Processing?

Sensory Processing – or Integration as it is also known – is the effective registration (and accurate interpretation) of sensory input in the environment and one's body. It is the way the brain receives, organizes and responds to sensory input in order to produce an adapted response.

Why is Sensory Processing Important?

A strong foundation in sensory processing is required for:

- Behaving in a meaningful & consistent manner
- Motor skill development
- Self-regulation
- Attention and Focus
- Social skills
- Engagement with environment and with other people

Sensory Input Generally Falls Into 3 Main Categories

Calming

Rocking
Repetitive Movement
Rhythmic
Deep Pressure
Warm Temperatures
Soft Textures
Low Lighting
Soothing Music
Tactile input such as rice or sand bins

ALERTING

Fast Movements
Arrhythmical & Unpredictable Movement
Bright and/or Flashing Lights
Cold Temperatures
Spinning
Music with faster BPM

ORGANIZING

“Heavy Work”: Movements that include lifting, carrying, pushing and pulling
Tactile input such as rice or sand bins
Linear movement (either horizontal or vertical)
Crawling
Crashing

Recognizing Sensory Processing Challenges

Sensory Modulation

Sensory modulation refers to how the brain regulates sensory input, influencing behavior and responses.

- Seeking:
  - Actively pursues sensory input (e.g., crashing, touching everything, loud vocalizations).
  - May appear energetic, fidgety, or overly focused on sensory activities.
- Avoiding:
  - Actively avoids sensory input (e.g., covering ears, refusing certain textures or foods).
  - May seem rigid, anxious, or withdrawn to protect themselves from overwhelming stimuli.
- Registration (Low Registration):
  - May not notice sensory input (e.g., not reacting to name being called or tactile stimuli).
  - Often appears quiet, passive, or slow to engage with their surroundings.
- Sensitivity (High Sensitivity):
  - Overwhelmed by sensory input but does not actively avoid it (e.g., startled by sounds, bothered by tags).
  - May appear irritable, distracted, or unable to focus due to constant sensory input.

Recognizing Sensory Processing Challenges

Sensory Responsiveness

Over-Responsive Patterns:

- Overreacts to sensory stimuli, perceiving them as overwhelming or threatening.
- May demonstrate fight-or-flight behaviors, such as covering ears, shutting eyes, or retreating from noisy spaces.

Under-Responsive Patterns:

- Does not register or react to sensory input effectively.
- May miss environmental cues, seem unaware of surroundings, or crave strong sensory input for stimulation.

Classroom Activities to Support Sensory Processing

Calming

- Turning off the fluorescent lights and using natural light
- Use of “calm down” or “quiet” corner with various items
- Deep breathing
- Quiet, calming music while completing independent work
- Use of noise cancelling headphones.

ALERTING

- Brain breaks that include running in place, jumping, large movements
- Dancing to fast music
- Use of faster cadence of speech or music

ORGANIZING

- Going for a walk
- “Heavy work” activities such as delivering a ream of paper to another teacher
- Crossing midline exercises, seated or standing
- Thera-band around desk legs
- Use of a Move ‘n Sit cushion or ball chair
- Wall or chair push- ups

ACTIVITES TO DO AT HOME

CALMING

- Laying on a bean bag chair with the lights off or low lighting
- Scooping, touching, and playing in tactile bins
- “Steam Roller”
- Listen to soothing music
- Sorting
- Rolling a child up in a “burrito blanket”

ALERTING

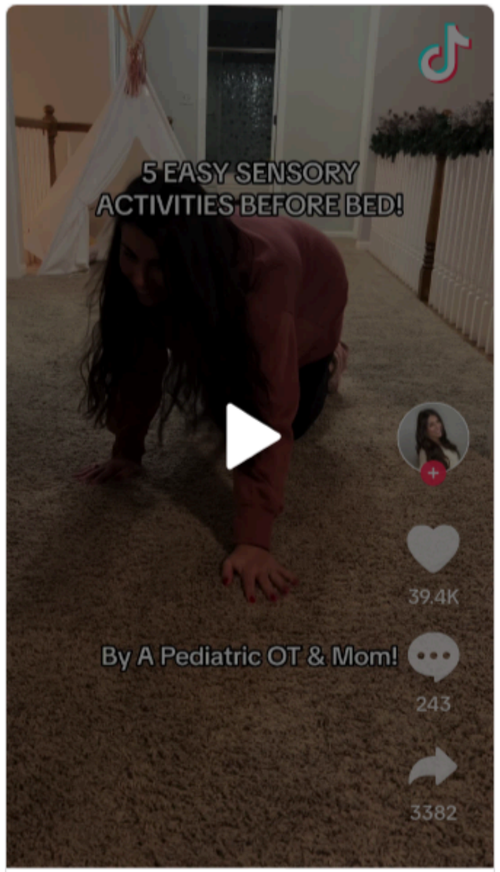
- Drinking cold water through a straw
- Sitting on the therapy ball and bouncing
- Dancing to fast music
- Running and jumping
- Make mouth & body noises
- Eating crunchy or chewy foods

ORGANIZING

- Pushing and pulling
- Crossing midline activities/exercises
- Riding a bike
- Jumping rope
- Playing on swing set
- Crawling through stretchy tunnel
- Make an obstacle course

SENSORY ACTIVITIES TO DO AT HOME

BEFORE BED



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Sensory strategies to calm your child's body before bed! #momsoftikt ...See more

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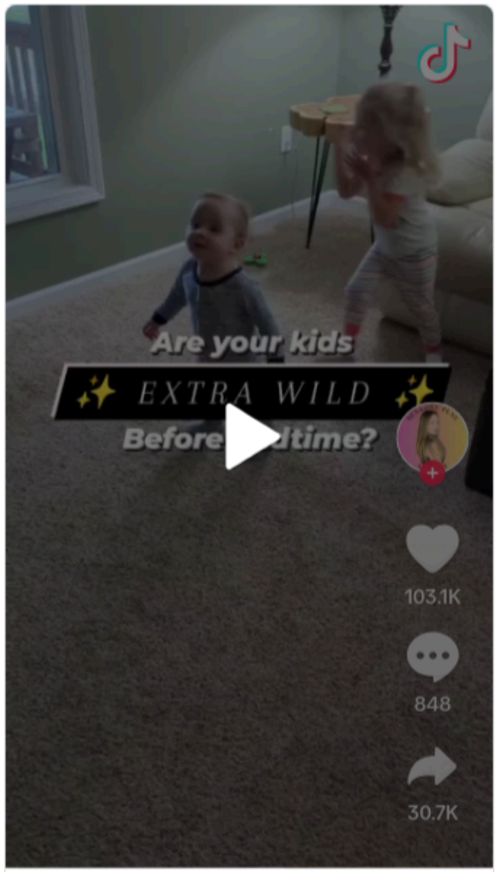

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✨ Kids wild at bedtime? Try this! ✨ 4 Occupational Therapy Sensory ...See more

original sound - Sensory Play All Day

SENSORY ACTIVITIES TO DO AT HOME

BEFORE BED

- **Heavy work** – Proprioceptive Input – jumping, crashing, crawling over obstacles, end with slow proprioceptive – turtle crawling or rolling up in burrito)
- **Oral motor input** – blowing bubbles into bowl with dish soap, vibrating toothbrush
- **Reduce visual clutter** – have child push a laundry basic around to pick up any clutter before bed
- **Auditory** – white noise machine, slow calming music
- **Gratitude practice** – talk about the day, share, connect

Key Takeaways

1. Understanding Sensory Processing

- Definition: Sensory processing is how the brain interprets and responds to information from our senses (e.g., touch, movement, sight, sound, smell, taste, proprioception, and vestibular input).
- Importance: It helps children navigate their world and impacts their ability to learn, play, and interact with others.

2. Recognizing Sensory Challenges

- Signs of Sensory Processing Issues:
  - Over-responsiveness - sensitivity & avoiding (e.g., covering ears for loud sounds, aversion to textures).
  - Under-responsiveness - low registration & seeking (e.g., lack of awareness of stimuli like touch or sound).
- Impact on Behavior: These challenges can affect attention, behavior, and participation in school and home activities.

3. Effects on Learning and Daily Life

- Learning Impact: Difficulty focusing, handwriting challenges, trouble following directions, or avoiding certain activities.
- Social and Emotional Effects: Sensory challenges can lead to frustration, anxiety, or difficulty with peer interactions.

Key Takeaways

4. Strategies for Support

- At Home: Incorporate sensory activities (e.g., swinging, deep pressure squeezes, or using sensory tools like weighted blankets).
- At School: Provide sensory breaks, use adaptive seating, or create quiet spaces.
- Consistency is key—use similar strategies across home and school.

5. Role of Occupational Therapy

- Support and Collaboration
- OTs evaluate sensory needs and create strategies for home and school. We work closely with parents and educators to help children thrive in their environment.


THANK YOU