

Eight Senses

In school, we learn there are 5 senses,
when really, there are 8!

Touch
(Tactile)



Hearing
(Auditory)



Sight
(Vision)



Smell
(Olfactory)



Taste/ Oral
(Gustatory)



Proprioception
(Body Position)



Vestibular
(Movement/ Balance)

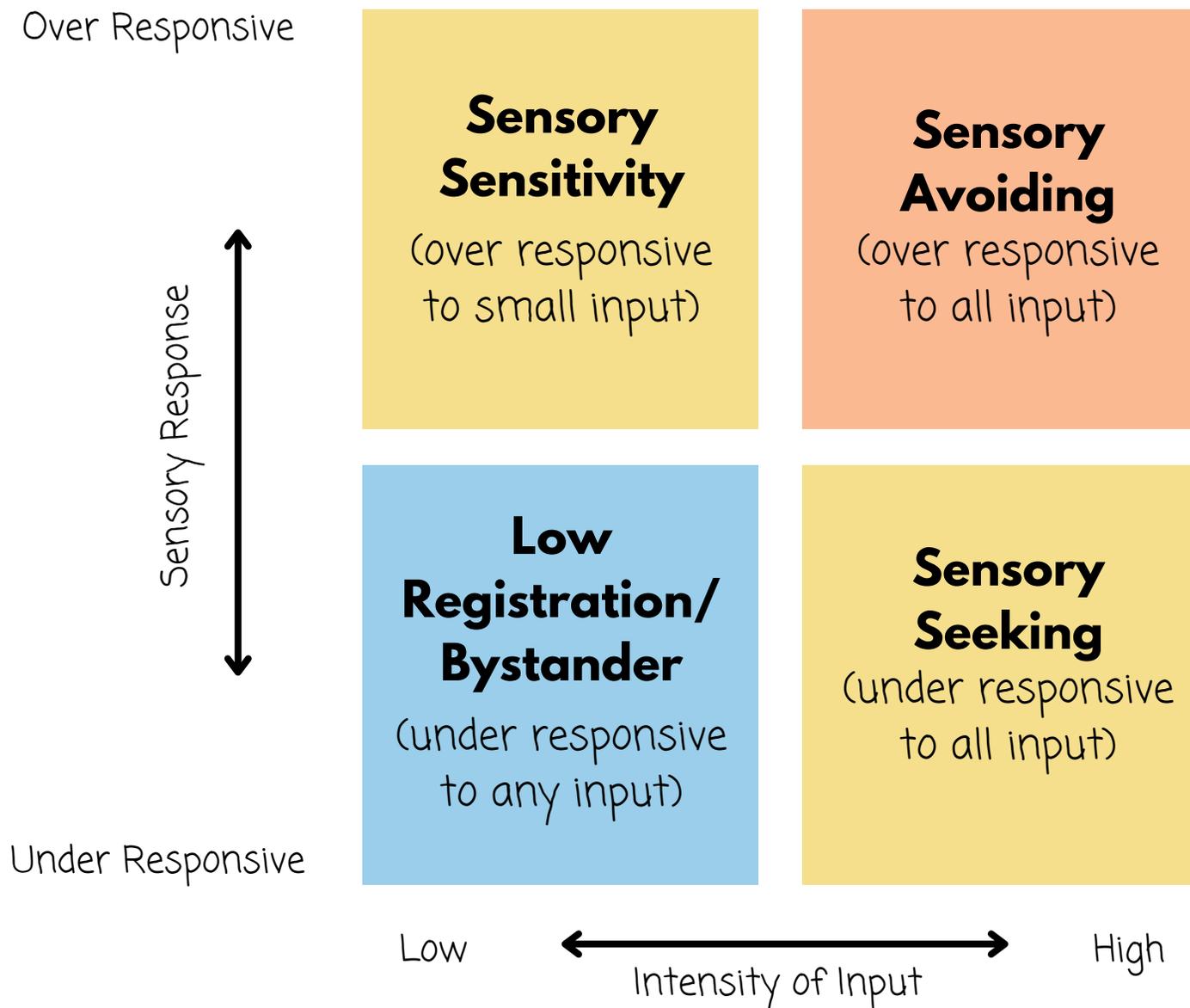


Interoception
(Internal Conditions)



Four Categories of Sensory Differences

There are four overarching patterns, or quadrants, in which sensory differences can be placed. Sensory function can be assessed using standardized assessments, which are often conducted by an OT. Children can fall into more than one, or even all four, of these categories due to responding differently to input to each of the 8 systems.





Sensory vs. Behavior

Is it Sensory or Behavior? Often, the answer is BOTH!

Sensory regulation – the perception of physical input

Behavior – the response to a stimulus or situation

Therefore, *behavior can be a **direct response** to sensory input.*

Many children who experience sensory processing differences are unable to appropriately process sensory information. This can therefore lead to responses that can appear as "behavior".

Sensory Reactions:

- your reaction to their behavior does not seem to matter
- the child is not requesting anything prior to the reaction
- the child is not in control
- the child is not aware of their surroundings
- the child needs more time to recover from this type of "behavior" or "meltdown" due to the stress it has caused

Behavior Reactions:

4 functions of behavior

1. sensory regulation
2. social attention
3. escape/ avoidance
4. access to tangible items

- the child may have requested something prior to their reaction
- the child is likely still aware of their surroundings
- behavior ends abruptly when their "function" is achieved

There are many things, internal or external, that could be causing stress to your child. This stress can result in them constantly being in a state of fight or flight. If your child is experiencing extreme behaviors and you are unable to determine the cause or function, or find a way to help them regulate their bodies, you may want to consult your child's PCP and/ or an OT!

What is a SENSORY TOOL KIT?

A sensory tool kit is a portable box, bin, or bag full of sensory tools and toys that help calm or stimulate your child's nervous system. When you notice your child getting overstimulated, you can grab your sensory kit and pull out calming tools like noise reducing earmuffs or a squeeze ball. When your child seems sluggish or is having trouble focusing, you can whip out a stimulating toy like a piece of chewing gum (which is both stimulating and organizing for a child's nervous system).

What to put in a calm down box:

Items that provide proprioceptive support

- Weighted lap cushion or weighted stuffed animal
- Weighted vest or pressure vest
- Resistance bands
- Mini massager
- Body sock
- Small blanket

Items to squeeze & keep hands busy

- Fidgets
- Rubik's cube
- Play Doh or Silly Putty
- Pipe cleaners
- Stress balls
- Bubble wrap
- Scarves or fabric scraps

Items to support breathing and relaxation

- Bubbles
- Pinwheels
- Straws with cotton balls or pompoms

Items for olfactory sensory support

- Calming essential oil spray
- Smelling bottles
- Scratch and sniff stickers

Items to get kids moving

- Yoga book or activity cards
- Jump rope

Items for auditory sensory support

- Noise cancelling headphones
- Music
- Audiobooks

Items for oral motor sensory support

- Chew toy or chew necklace
- Chewing gum, hard candies, or lollipops
- Snacks with a variety of textures
- Whistle, harmonica, etc
- Bubbles

Items that gives kids a brain break

- Puzzle
- Books
- Blank notebook and pencils
- Coloring book
- Small chalk board, Magna Doodle, or Etch-a-Sketch
- Activity books
- Photo album

Items to visually calm

- Visual calm down cards
- Sensory bottle or calm down jar
- Light up toys
- Flashlight
- Plastic snow globe
- Kaleidoscope
- Hourglass
- Eye mask

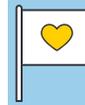
For more tips on sensory regulation and calm down strategies, visit our website or follow us on Social Media!

Touch (Tactile)



What is it?

Includes many receptors throughout the body. Tactile input includes touch, pressure, temperature, texture, vibration, and pain.



Common Diagnoses

Autism
Sensory Processing Disorder
ADHD



Avoiding Behaviors

Dislikes anything wet or messy
Uncomfortable in clothes
Refuses to wear some fabrics
Avoids physical contact
Dislikes large crowds
Dislikes having hair brushed



Seeking Behaviors

Runs fingers on walls
Dislikes wearing shoes
Prefers tight clothes
Pinches, hits, or pushes friends
Always dirty or messy
Has a high pain tolerance



Activities

Sensory bins
Sensory dough
Massages
Finger painting

Hand squeezes
Squish boxes
Weighted activities
Slime

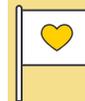
Wet foods
Multi-Texture Materials
Sensory books
Shaving cream play

Hearing (Auditory)



What is it?

Includes parts of the brain and ears. Auditory input includes sound frequency, pitch, tone, and speed. Crucial to understanding language.



Common Diagnoses

Autism
Sensory Processing Disorder



Avoiding Behaviors

Dislikes loud noises
Sensitive to pitches in sounds
Covers ears
Avoids everyday noises
Dislikes metallic sounds



Seeking Behaviors

Makes loud noises
Prefers loud music
Enjoys everyday sounds
Talks in an outside voice
Plays instruments near ears



Activities

Matching sound games
Playing instruments or music
Earplugs or headphones

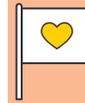
Sound machines
Pre-recorded books
Singing or chanting

Sight (Vision)



What is it?

Includes parts of the brain and the eyes. Visual information like color, shape, orientation, and motion are received by this system.



Common Diagnoses

Visual Perceptual Disorder
Dyslexia
Autism
Sensory Processing Disorder



Avoiding Behaviors

Covers eyes or squints
Avoids direct eye contact
Has headaches or dizziness
Can't focus in bright light



Seeking Behaviors

Flickers the light on and off
Stares at bright lights
Shakes head during activities
Holds items close to eyes



Activities

Flashlight tag
Sensory bottles
Color matching games
I Spy

Bean bag toss
Mazes
Connect the dots
Hidden Picture

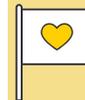
Low light room
Rainmaker
Light up toys

Smell (Olfactory)



What is it?

Includes the base of the brain and the nose. This system filters smells and distinguishes between smells.



Common Diagnoses

Autism
Sensory Processing Disorder
ARFID



Avoiding Behaviors

Avoids certain smells
Gags at strong smells
Dislikes certain food due to smell
Tells people they stink
Dislikes public places



Seeking Behaviors

Enjoys strong smells
Unaware of dangerous smells
Unable to identify food by smell
Prefers food with strong smells
Smells things that seem odd



Activities

Scented play dough
Scented markers
Blindfold smells
Spices

Matching smells
Essential oils
Guess that scent
Candles

Taste/ Oral (Gustatory)



What is it?

Includes the tongue, mouth, and receptors in the brain. Different tastes send the brain messages about whether or not the food is safe to eat.



Common Diagnoses

Autism
Sensory Processing Disorder
ARFID
General Feeding Difficulties



Avoiding Behaviors

Picky eater
Dislikes hard or mushy food
Gags at certain foods
Dislikes trying new foods



Seeking Behaviors

Loves crunchy foods
Prefers spicy foods
Bites hair, nails, pencils
May bite others



Activities

Make an edible necklace
Chew on hard candy
Blow bubbles
Pinwheel

Alternative chewy toys
Try new food
Blow whistle
Chewy Tubes

Vestibular (Movement/ Balance)



What is it?

Includes many parts of the body like the brain, eyes, and spinal cord. The system responsible for balance and determining your position in space.



Common Diagnoses

Autism
Sensory Processing Disorder



Avoiding Behaviors

Dislikes being picked up
Appears uncoordinated
May seem stubborn
Dislikes tilting head back
May experience motion sickness
Afraid of heights / stairs



Seeking Behaviors

Spins or swings
Rocks back and forth
Runs instead of walking
Very impulsive
Takes unsafe risks
Hangs upside down off furniture



Activities

Swinging
Bike or trike rides
Hanging upside down
Balance on a ball

Freeze Dance
Wagon Rides
Obstacle course
Sit and Spin

Hippity Hop
Log rolls
Yoga
Trampoline Jumps

Proprioception (Body Position)



What is it?

Includes inner ear, muscles, and joint receptors sending information to the brain. System responsible for muscle and joint movements and body awareness.



Common Diagnoses

Autism
Cerebral Palsy
Sensory Processing Disorder
ADHD
Down Syndrome



Avoiding Behaviors

Very cautious with each step
Prefers to sit still
Seems uncoordinated
Dislikes being touched
Uses too little force
Difficulty using stairs



Seeking Behaviors

Crashes into things
Stomps or walks loudly
Doesn't know personal space
Poor body awareness
Kicks, bites, or hits
Uses excessive force



Activities

Leap frog
Tug of war
Trampoline jumps
Pillow fights

Bear hugs
Yoga stretches
Animal crawls
Kneading play dough

Wheelbarrow pushes
Pull full laundry basket
Weighted blanket
Push medicine balls

Interoception (Internal Conditions)



What is it?

The system responsible for regulating the body and internal organs. This system sends information to your body like hunger, thirst, respiration, heart rate, and elimination.



Common Diagnoses

Encopresis
ARFID



Signs of System Dysfunction

Difficulty potty training
Bedwetting
Difficulty identifying emotions
Unable to recognize fear
Difficulty understanding hunger and thirst sensations
Cannot identify what is causing their discomfort



Activities

Kids Yoga
Mindfulness
Breathing Exercises
Social Stories

Visual Schedules
Sensory Play
Matching emotions games
Talking about feelings and sensations