

FACT SHEET

SENSORY REGULATION



Sensory regulation is a person's ability to regulate and process the stimuli they continually receive from the environment around them and within their own body.

1 What is sensory processing?

Our bodies are constantly taking in information from the world around us. Sensory processing is the way we take in that information through our senses, process it, and organize it. Information is taken in through our sensory receptors. There are **five external processing receptors**, sight, sound, touch, taste, and hearing. Then there are three **internal processing receptors**, vestibular- movement and balance, proprioception- the sense of the body's position, and interoceptive- our ability to feel what is happening inside our bodies and respond accordingly such as sensations like hunger, anger, and the need to use the restroom. Our brain then processes that information to determine whether it is important or not, what to do with it, and/or how to respond to it. This process happens unconsciously or without the individual experiencing it even knowing. Sensory processing is essential to our daily functioning.

Studies have shown that more than half of individuals with ASD process sensory information differently. Within these studies, the most common differences and struggles were with sensory modulation; the ability to respond or not respond appropriately to the sensory information around us while still actively living your day-to-day life.

The American Psychiatric Association released the fifth edition of its Diagnostic and Statistical Manual of Mental Disorders to include criteria based on these sensory processing differences and considers it to be a core feature in the diagnosis of ASD.

2 What are the main sensory processing patterns for individuals with ASD?

The three sensory patterns agreed upon in research are:

- Sensory over-responsivity - is when an individual has an exaggerated, negative response to the sensory input around them. For example, particular items of clothing may trigger an over-responsivity response. This often leads to avoidance behaviors.
- Sensory under-responsivity - is when an individual seems oblivious, or slow to respond when coming into contact with certain stimuli that would typically evoke a quick response. Such as pulling your hand away from a hot surface.
- Sensory seeking - is an unusual preoccupation with certain sensory experiences. This can include repeatedly licking surfaces, smelling items, staring at spinning objects, etc.

Many individuals with ASD experience a combination of over and under responsivity to the environmental stimuli around them, leading to unusual sensory seeking and/or avoiding behaviors.

3 Is the behavior....

Sensory Seeking

- Loves to spin in circles
- Enjoys hugs, tickles, and being touched
- May miss social cues and may have poor body awareness
- Likes making or listening to loud noises
- Does not notice their face is dirty or if their clothes are twisted or disheveled
- Often chews on items that are not food such as clothing, fingernails, pencils, or other materials
- Loves to jump from high spaces and crash into things
- Engages in visual stimulation

OR



Sensory Avoiding

- Dislikes touch or hugs
- Dislikes hair washed or brushed
- Bright lights bother me
- Prefers tags taken off the clothes and dislikes wearing certain clothing items
- Dislikes strong scents or scents from food
- Dislikes certain food textures
- Poor spatial awareness
- Covers ears or hums with loud noises

4 Activity Ideas for Support

Proprioceptive Activities	Tactile Activities	Vestibular Activities
<ul style="list-style-type: none"> • Sweep the classroom • Mold, pull and pound on clay or Thera-putty • Play catch with a heavy ball • Heavy lifting activities • Pulling/pushing movements 	<ul style="list-style-type: none"> • Finger paint • Tear or rip the paper • Explore sensory bins • Create a texture filled scavenger hunt 	<ul style="list-style-type: none"> • Sensory swings • Jumping activities • Yoga balls • Dance parties • Wobble seats
Visual Activities	Auditory Activities	Oral Activities
<ul style="list-style-type: none"> • Provide light toys (bright or neon lights) • Time timers • Dim lights • Fish tanks • Light Table • I Spy activities • Hide N seek or scavenger hunt 	<ul style="list-style-type: none"> • Listen to music • Listen to sounds of nature • Action songs • Provide noise-canceling headphones 	<ul style="list-style-type: none"> • Provide a variety of tastes (sweet and sour) • Blow toys (bubbles, pinwheels, harmonicas) • Use a straw to blow paint on paper • Chew gum • Chew necklaces

Additional Resources:

Ismael, N., Lawson, L. M., & Hartwell, J. (2018). Relationship between sensory processing and participation in daily occupations for children with autism spectrum disorder: A systematic review of studies that used Dunn's sensory processing framework. *American Journal of Occupational Therapy*, 72, 7203205030. <https://doi.org/10.5014/ajot.2018.024075>