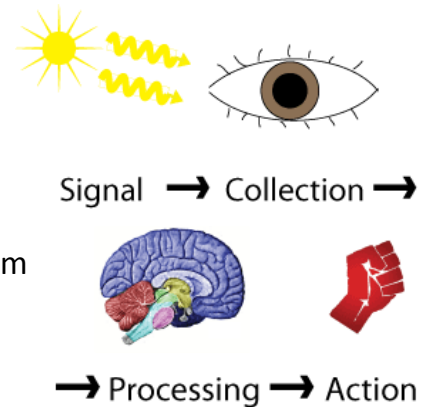


Sensory Processing

What is it?

Sensory processing (sometimes called "sensory integration" or SI) is a term that refers to the way the nervous system receives messages from the senses and turns them into appropriate responses. Sensory processing works when the sensory system receives a signal, collects the information from that signal, processes it in the brain, and causes the body to react with some kind of action whether it's physical, emotional, or cognitive.



The Sensory System integrates the 5 well-known senses plus 2 others—Sight, hearing, taste, touch, and smell—as well as two lesser known senses—the vestibular system and the proprioceptive system together make up the Sensory System. The vestibular system tells a person whether they are in motion or if something is in motion around them. The proprioceptive system tells someone where their body is located in space and what parts of their body are moving. The Sensory System takes information from all 7 of these senses and processes it so people can understand the world around them.

Sensory processing difficulties can occur when sensory signals don't get organized into appropriate responses. This can be seen as a neurological traffic jam. It prevents certain parts of the brain from receiving the information needed to interpret sensory information correctly. A child who struggles with sensory processing may find it difficult to process and act on information received through the senses, creating challenges in performing countless everyday tasks. A sensory diet tailored to a child's needs can help improve a child's everyday life when processing the world around them.

Resources:

Adapted from: <http://spdfoundation.net/about-sensory-processing-disorder.html>

Picture from: <http://en.wikibooks.org/>

Examples of Sensory Related Behaviors

Sensory System	Definition	Example of Behaviors
1. <i>Visual System</i>	Visual information processed through sight.	<i>Under-responsive:</i> Seeks visual input from TV or computer screens. <i>Over-responsive:</i> Turns lights off around the house because they hurt their eyes.
2. <i>Auditory System</i>	Sound processed through hearing.	<i>Under-responsive:</i> Seeks loud music when it's not socially appropriate. <i>Over-responsive:</i> Becomes upset by background noises.
3. <i>Tactile System</i>	Processing of all types of touch to skin.	<i>Under-responsive:</i> Does not respond to a touch on the arm used to get their attention. <i>Over-responsive:</i> Sensitive to getting hair brushed, receiving a hug, or a pat on the back.
4. <i>Olfactory System</i>	Scents processed through smell.	<i>Under-responsive:</i> Does not respond to unpleasant smells that others find uncomfortable. <i>Over-responsive:</i> Sensitive to perfumes and other scents and becomes upset by them.
5. <i>Gustatory System</i>	Flavors processed through taste.	<i>Under-responsive:</i> Uninterested in trying new foods. <i>Over-responsive:</i> Sensitive to flavors or textures of foods.
6. <i>Proprioceptive System</i>	Information of where one's body is located in space processed through joint input.	<i>Under-responsive:</i> Seeks excessive movement while seated. <i>Over-responsive:</i> Runs into walls and objects routinely.
7. <i>Vestibular System</i>	Information of movement of head in space, processed through inner ear canal.	<i>Under-responsive:</i> Seeks spinning motion on swing. <i>Over-responsive:</i> Fearful of going on swing.