

Sensory Integration Disorder

What is it?

The brain's ability to organize and process sensory information allows for appropriate responses in a particular situation. Children who are unable to process and use sensory input often have a sensory integration disorder.

One of the best ways to describe how a child with sensory integration disorder may feel is to imagine sitting in your room while dinner is cooking in the oven downstairs; the air conditioner and TV are on, and the shades are open while you are reading a book. For many children, this environment is easy to adjust to and normal, but this experience can be extremely difficult for the child with sensory integration disorder to adjust to the sensory bombardment. They may feel as though the sunlight is blaring in their eyes, and the TV is set on an extremely HIGH volume. The air conditioner sounds exceptionally loud and blows uncomfortably in his or her face. The material of the book is irritating to the touch, and the smell from the oven and the ticking of the kitchen timer are overwhelming and bothersome.

The ability to learn even the simplest things and to behave appropriately is impaired when a child can't understand the input they get from their senses, such as:

- Vestibular – equilibrium (state of balance), gravity, movement and changes in space
- Proprioceptive – unconscious awareness of body parts in relation to movement of the muscles and joints about position, weight or pressure stretch and changes in position in space
- Auditory - hearing
- Vision
- Olfactory - smell
- Tactile – light, touch, pain, temperature and pressure
- Gustatory - taste

What are the symptoms?

The sensory difficulties vary along a continuum. A child with sensory integration disorder may show one or more of the following signs:

- Under or overly sensitive to sound; may cover his or her ears and pull away from most noises or crave a lot of multiple sound stimuli; sings or hums persistently
- Under or overly sensitive to light; may cover his or her eyes and not be able to tolerate bright or flashing lights; stares and blinks at lights
- Under-reactive to sensory stimulation; might crave spinning, jumping, moving constantly or avoid movement; doesn't like playground or swinging
- Unusually high or low activity level; may seem hyperactive or inactive
- Coordination problems; may seem clumsy or careless
- Delays in language or motor skills
- Below average performance in academics
- Poor organization of behavior; may seem impulsive, distracted, frustrated or aggressive
- May seem lazy, bored or unmotivated
- Difficulty making transitions; has difficulty with routine changes and seasonal changes
- Social and/or emotional problems; acts out, has frequent temper tantrums; seems hostile and defiant

How is it treated?

An occupational therapist who specializes in sensory integration (only about 20% of occupational therapists do) will examine and assess the child's responses to a variety of sensory stimulation, as well as the child's balance, fine and gross motor skills, coordination and eye movement. Other tests may be done to assess the child's occupational performance.

Based on the results, suitable activities will be employed to help the children modulate sensory stimulation, develop adaptive responses and feel more comfortable with the world around them. Most activities are fun for the children, and help strengthen their coordination between their brains and their bodies to gain and/or enhance function in daily living.

In therapy, the child will be guided through activities that challenge their ability to respond appropriately to sensory input by making successful, organized responses. The activities are play-based and designed to gradually increase the demands upon the child. Emphasis is placed on automatic sensory processing in their environment with a goal directed activity, rather than instructing or drilling the child on how to respond.