



Supporting Sensory Preferences in Young Children

Presenter: Chris Bentley

What is Sensory Integration?

Each day, we all receive information through our senses that helps us to organize our behavior and to interact, explore, and navigate successfully within our environments. Most of us are able to readily identify the five senses of sight, hearing, taste, touch, and smell. Besides these basic five senses we also have several other important senses. Through her research, A. Jean Ayres, OTR, PhD, has identified the following fundamental sensory systems:

- ❖ Tactile sense: provides us with information through the surface of our skin about shape, size, and texture of objects in our environment.
- ❖ Vestibular sense: provides us with information about balance and movement, gravity, and space, and where our body is in relation to the surface of the earth. This information comes to us through the functions of the inner ear.
- ❖ Proprioceptive sense: provides us with information about where our body parts are and helps us plan and coordinate movement. This information comes from our muscles, joints, and ligaments. It is referred to as our “muscle sense.”

These three senses are often referred to as the “hidden” senses. They are just as important to our comfort, independence, and ability to learn as the senses that are most familiar to us.

Sometimes one or more of our senses do not interpret information properly. This misinformation influences our sense of security, safety, and ability to enjoy our world.

Some of the observable behaviors that result from a sensory system that is not properly interpreting information include: being over-reactive to touch, movement, sound, or visual sights; being under-reactive to touch, movement, sound, or visual sights; unusually high or low level of activity; delays in learning and/or developing self-help skills; difficulty organizing and regulating behavior; and poor self-esteem. Individuals who are under-reactive will seek out more input in a given sensory area; they are referred to as “sensory seeking” and may crave stimulation in a certain sensory area. Those who are over-reactive will avoid certain sensory experiences to enable them to cope with unwanted sensory input; these individuals are referred to as “sensory avoiding.”

Intervention Strategies and resources

Weighted products

For more information, visit www.weightedvests.com, www.quietquilts.com, www.SPDDNetwork.org, www.fraser.org also provides tip sheets to make your own.

Environmental adaptations

- Limit the amount of visual stimuli in the environment.
- Store toys and materials in clear and labeled containers.
- Provide a predictable schedule and daily routine. Visually display the daily schedule using a picture schedule.
- Create personal space at tables by using cookie sheets, trays, laminated construction paper, place mats, or electrical tape.
- Use colored tape to visually designate personal space when lining up at the door, waiting, using the drinking fountain, and during group meetings.
- Offer children the opportunity to eat chewy, crunchy foods. This can be organizing along with drinking through a straw or blowing bubbles.
- Create a quiet space for a child to go when a break is needed.
- Limit the amount of auditory stimuli in the environment. Classical/instrumental music played softly in the background can be very soothing. Some children may benefit from the use of a headset to muffle certain noises. These can be purchased at hardware or electronics stores.
- Prepare children with auditory sensitivity for fire drills and other loud noises.
- Arrange quiet activities near each other and away from noisier activity areas.
- Prepare for and facilitate transitions by using songs as signals and providing activities while waiting.
- Offer small objects or "fidgets" to help maintain focus and attention. Some adults respond to this by saying, "Then all the children will want a fidget toy." While this may be true at first, children will generally stop a behavior that they do not find helpful or useful.
- Provide children with sensory experiences such as a sensory table or bins, texture box, etc.
- Provide children with other ways to explore sensory materials.
- Include dramatic play clothes, shoes, bags, etc. of varying textures (e.g., silky, furry, soft, and stiff).
- Allow opportunities for movement before and after quiet activities.
- Have children march or move in another creative way from one activity to another. Moving the body to rhythm and giving input to the feet can be organizing.
- Provide opportunities for movement including climbing, rocking, swinging, and spinning.
- Have children try to "hold up" or "push down" the walls while waiting in line. Doing push-ups also provides input to the body that can be organizing.
- Encourage children to take several deep breaths to help them slow down and/or focus before they begin working on a task they perceive as difficult.
- Offer appropriate seating so that children are sitting at a 90-degree angle with feet touching the floor. Table height should be at elbow level.
- Offer a variety of seating options for floor time such as cushions, carpet squares, and cube chairs.

The following chart provides examples of over-reactive and under-reactive responses to sensory systems:

| Sense | Under-reactive response <i>(sensory seeking)</i> | Over-reactive response <i>(sensory avoiding)</i> |
|--------------------------------------|--|---|
| Sight (visual) | May like flicking lights on and off May enjoy toys with lights | May be distracted by visual stimulation May be sensitive to bright sunlight and lighting |
| Smell (olfactory) | May like to smell objects and foods before exploring/tasting | May be sensitive to certain odors May detect odors that others do not |
| Taste (gustatory) | May prefer foods with strong flavors | May prefer bland foods |
| Hearing (auditory) | May seek noisy toys and prefer loud music | May be unable to or find it difficult to pay attention and stay on task in a noisy environment May desire own space and withdraw or cover ears in what is perceived as a noisy environment May cover ears in response to certain sounds found to be aversive or frightening |
| Touch (tactile) | May bite self May appear to feel little pain May enjoy going barefoot May love playing with sand & finger paint May touch everything in order to learn & explore | Avoids touch Tags on clothing, seams on socks, and certain fabrics may bother the child May refuse to get messy (e.g., finger painting, etc.) May interpret being bumped as being hit |
| Vestibular (balance and equilibrium) | May have no fear of falling May like spinning and swinging | May avoid swinging, climbing, and riding toys |
| Proprioceptive (muscle sense) | May prefer strong bear hugs May hug and touch peers too hard | Avoids activities that require motor planning (navigating an obstacle course, etc.) |

If you would like more information on sensory integration, some helpful resources include the following:

Center for Inclusive Child Care Learning Center, www.inclusivechildcare.org

Sensory Preferences in Young Children, 2007, Center for Inclusive Child Care, www.inclusivechildcare.org.

Biel, Lindsey, and Nancy Peske. *Raising a Sensory Smart Child: The Definitive Handbook for Helping Your Child with Sensory Integration Issues*. New York: Penguin Books, 2005.

Klass, Perry, and Eileen Costello; *Quirky Kids: Understanding Your Child Who Doesn't Fit In – When to Worry and When Not to Worry*. New York: Ballantine Books, 2003.

Koomar, Jane, et al. *Answers to Questions Teachers Ask about Sensory Integration*. Las Vegas, NV: Sensory Resources, 2001.

Kranowitz, Carol Stock. *The Out-of Sync Child: Recognizing and Coping with Sensory Processing Disorder*. New York: Perigee Book, 2005.

Kranowitz, Carol Stock; *The Out-of Sync Child Has Fun: Activities for Kids with Sensory Processing Disorder*. New York: Perigee Book, 2006.

Miller, Lucy J., and Doris A. Fuller. *Sensational Kids: Hope and Help for Children with Sensory Processing Disorder*. New York: G. P. Putnam's Sons, 2006.

Smith, Karen A., and Karen R. Gouze; *The Sensory-Sensitive Child: Practical Solutions for Out-of-Bounds Behavior*. New York: Harper Resource, 2004.

A helpful website for downloading pictures for picture schedules and choice boards at no cost: www.do2learn.com.

MN Association of Children's Mental Health, fact sheet on *Regulation Disorder of Sensory Processing*, www.macmh.org