

SENSORY PROCESSING

Occupational Therapy

Sensation refers to the things that we can see, hear, feel, smell and taste and gives us information about the environment around us and about ourselves. Our central nervous system or brain helps us know when to pay attention to, ignore, seek out, or avoid sensation to help us feel more comfortable or bring out feelings of excitement and relaxation. It also helps us to develop positive interactions with people and objects around us. Sensation plays a role in how we try to avoid those things which may be painful or cause us to feel uncomfortable or stressed.

The way we react to sensation is individual. As a result, reactions to a certain sensation may be very different among people even though they are receiving the same sensory information. This is why it is important to have a better understanding of a person's sensory processing needs. This will help us to help others feel more comfortable in their daily activities by respecting their sensory needs.

The following are examples of the various sensory systems and how we can help others who either seek (want or look for) or avoid sensory experiences. Allow us to introduce our sensory friends....

Tactile seeking/avoidance:

This child may be 'touchy feely' and like to touch others and things or try to avoid touching things. They may be sensitive or seek light touch, deep pressure, hard or soft things, sharp or dull, vibration, temperature and pain.

Ways to help 'tactile seekers':

Allow the child to explore touch with various textures. Examples include objects that are smooth, bumpy, rough, fuzzy, warm and cold. They may enjoy deep massages and toys that vibrate. An electric toothbrush and back massagers are often favourites!

Ways to help 'tactile avoiders' at home and school:

- Please respect the child's choices and try to avoid making them touch or feel things they don't like. Gradually help teach them that these sensations are not harmful by slowly introducing them. It sometimes helps if the child is provided a deep massage or a hand massage before activities such as finger painting or hair washing/brushing. Deep massage helps calm their nervous systems and makes those negative feelings feel more tolerable.

- A child that presents with tactile avoidance may have difficulty participating in activities for learning. These children benefit from increased tactile play to decrease sensitivity to touch. Begin with emersion in a tolerated texture (i.e., water, soft material, etc.) and increase exposure to touch activities with a variety of textures. The use of sensory bins should be encouraged. You can hide small toys, puzzle pieces, etc. in the bins to encourage play with the different textures. Sensory bin examples include: dried rice, dried pasta, unpopped popcorn, cooked noodles, water beads, cut straw pieces, cotton balls, water, etc. The child will require close supervision for this task to ensure safety.

Vestibular seeking/avoidance:

Vestibular feedback helps a child deal with gravity when they are moving, no matter what direction or speed they are going. It keeps everything 'in check' whether they are standing or sitting. Signals from their inner ear help them with regulate this. Some children like to move in all directions with all kinds of speed while others are scared of moving and prefer to be still.

Ways to help 'vestibular seekers':

Allow them regular opportunities throughout the day to get the movement that their body needs. This includes activities such as running, jumping, climbing, swinging, bouncing, rocking, riding a bike, and various sports. They often like car rides and rides at amusement parks.

Ways to help 'vestibular avoiders':

Please respect the fact that they may feel scared when their feet leave the ground or that they may not like things that move. Slowly teach them that it is okay and safe when they are moving. Slowly have them experience different movements by either going on a swing with them or putting them on a moving object where their feet still touch the ground so they feel safe.

PROPRIOCEPTIVE SEEKING

Proprioception is very important for helping them know where their body is in space. Information from their joints, muscles and tendons help them to adjust their movements and body position so that they are smooth with just the 'right amount' of pressure. Some children need lots of information to help them with movement or other activities. Deep pressure is typically relaxing for them.

Ways to help proprioceptive seekers:

Children will often like deep massages and hugs, being wrapped up snugly in a blanket and feeling comfy/cozy when sleeping with heavy blankets or a duvet comforter. They will often like activities which involve bouncing and jumping because they give their muscles and joints lots of important information.

Visual seeking/avoidance:

Vision is the way children perceive things in their environment. They may love looking at things and can pick out minute details on objects. Some children, however, have difficulty with visual stimulation.

Ways to help 'visual seekers':

Incorporate into their play and work toys and objects that are brightly coloured, that move and spin, that have contrast, shape and edges. This can motivate them and help them learn, but in moderation (don't allow them to over-stimulate on these objects).

Ways to help 'visual avoiders':

Keep visual distractions to a minimum. Avoid bright lights, especially fluorescent lighting and use large print and a ruler to help me when I am reading books.

Auditory seeking/avoidance:

Hearing involves listening for sounds and processing what is being heard. Consider volume, rhythm, tone and pitch of sounds. Some children may love sounds and music, but just need some help attending to sounds or some can be very sensitive to loud noises.

Ways to help 'auditory seekers':

Sensory seekers may learn best with rhythm and music, so consider putting instructions into a song. Also consider using visual or tactile cues when talking to children that seek auditory input (i.e., tap me on the shoulder) and play games that help the child to better attend to sounds (i.e. auditory bingo).

Ways to help 'auditory avoiders':

If possible, warn children that avoid auditory input about impending loud sounds such as a fire alarm, whistle, bell, horn or train. Earplugs or headphones could be provided to wear in areas where there are many loud noises. Playing with a fidget toy can also help compete with these background noises. Avoid unnecessary background noise and be aware that

children can become irritated because they can hear the slightest sound (i.e. a clock ticking in another room or the humming of the fridge).

Oral-Motor seeking/avoidance:

Oral-motor involves activities of the mouth – chewing, swallowing, sucking, blowing, talking, eating and tooth brushing. A child may crave oral-motor experiences or may dislike things in their mouth and have very specific food preferences.

Ways to help ‘oral-motor seekers’:

Because they put everything in their mouth, let them chew on straws, latex-free tubing, chewing gum and gummy worms. Try alerting food items (i.e. sour fruit popsicles and spicy chips) and crunchy foods (i.e. raw vegetables and crunchy cookies) to keep their mouth muscles stimulated. Let them blow on musical instruments and blower toys and suck thick beverages (i.e. milkshakes) through a straw.

Ways to help ‘oral-motor avoiders’:

When introducing new types of foods or foods with different textures, introduce these new foods in combination with preferred foods (i.e. cornflakes into their favorite yogurt) and introduce only very small portions or bites. For tooth brushing, try using a Nuk brush or vibrating toothbrush and mild-flavored toothpaste.

OLFACTORY SEEKING/AVOIDANCE

Olfactory is responsible for the smelling and the processing scents around us. The child may smell everything around them and crave certain smells, or they may be hypersensitive to even light scents and be bothered by these.

Ways to help ‘olfactory seekers’

Provide them with a ‘smelling box’ where they have a few bottles filled with their favorite scents and have ‘smelling time’ throughout the day.

Ways to help ‘olfactory avoiders’

Refrain from wearing perfumes, aftershave and scented lotions and deodorants. Use unscented detergents and shampoos. Avoid/reduce trips to places that are heavily scented (i.e., grocery store, flower shop).