

Third Thursday

Sensory Issues What Parents Need to Know

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Sensory Processing is how the brain...

1. Takes in information (through our sensory systems)
2. Interprets that information
3. Develops a response or action

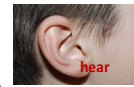


Or More Simply

1. I "see/hear/ feel/ taste/ smell or sense" something
2. "What is it?" "Is it important?"
"What should I do?"
3. I "do/say/react"



Everyday we are exposed to thousands of sensory experiences...



How we handle sensory experiences helps us maintain physical and emotional balance

When balanced it allows us to demonstrate appropriate levels of alertness and adapt to an ever changing sensory environment



Our Seven Senses

1. Sound/Auditory
2. Sight/Vision
3. Smell/Olfactory
4. Taste/Gustatory
5. Touch/Tactile
6. Proprioception
7. Movement/Vestibular

Auditory - Hearing

Location:

- Structures of the ear

Activated by:

- Vibrations produced by sound

Function:

- Process sound so that speech, music, noise can be distinguished



Behavior you might observe with Auditory System include...

- Covering ears
- Head-banging
- Attends to and focuses on sounds that are constant; e.g., fan motor
- Makes self-induced noises – for example 'humming to self'
- Responses of fear pain, or confusion

Vision - Seeing

Location:

- Structures of the eye

Activated by:

- Light

Function:

- Provide awareness of surroundings beyond arms' reach (distance, proximity, and depth perception)
- Detects light and gives information on objects/people



Problems with the Visual System include...

- Covering eyes
- Uses peripheral vision
- Lack of attention
- Excessive attention to moving objects; bright colors; shiny surfaces; patterns; lights
- Limited or no eye contact
- Arranges objects in certain ways; upset if out of order
- Low tolerance to visual imperfections

Olfactory - Smell

Location:

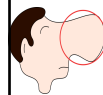
- Nasal cavity

Activated by:

- Chemicals called odors

Function:

- Assist in discrimination of people/things
- Alerts against volatile/dangerous substances



Behaviors Observed with Olfactory System include...

- Explores environment by smelling
- Prefers/avoids environment/objects with a particular odor
- Avoids environments because of odors, e.g., K-mart, McDonalds
- May avoid an individual due to an associated odor, e.g. perfume/cologne

Gustatory - Taste

Location:

On the surface of the tongue, along the soft palate, and pharynx and epiglottis

Activated by:

Chemicals in foods/items interacting with the receptors

Function:

Partners with the sense of smell to perceive flavors

Problems with the *Gustatory System* include...

- Explores environment by tasting
- Self-induced vomiting with certain foods
- Tastes or eats non-edibles (Pica)
- Stuffs food in mouth
- Prefers/avoids certain foods; textures
- Limited food preferences



Tactile - Touch

Location:

- The skin—areas of greatest concentration are the mouth, hands, and soles of feet

Activated by:

- Contact with the skin and skin receptors - pressure, temperature, pain

Function:

Two separate systems -

- Protective - lets us know if we are in danger
- Discriminative - where, what, and how we are touched

Behaviors you might observe with the *Tactile System* include...

- Distractibility
- Hyperactivity
- Over/Under Sensitivity
 - Hyper-vigilant
 - Inappropriate pain sensation
 - Avoids getting hands dirty
 - Difficulties with clothing/textures
 - Difficulty with hand-over-hand
 - Avoids whole hand
 - Disorganized when touched
 - Intolerant of wearing glasses/hearing aide
- Difficulty with Social Space



Proprioception - Space

Location:

- Joints, tendons, muscles

Activated by:

- Bending, straightening, compressing, pulling, contracting, and stretching the receptors

Function:

- Provide information about our position in space and general body awareness

Behaviors you might observe with the *Proprioceptive System* include...

- Clumsiness, a tendency to fall
- A lack of awareness of body position in space
- Odd body posturing
- Minimal crawling
- Poor handwriting/resistance to handwriting
- Difficulty manipulating small objects(button/snap)
- Disorganization with materials/thoughts
- Eating in a sloppy manner
- Resistance to new motor movement activities



Vestibular - Movement

Location:

- The inner ear

Activated by:

- Movement of the head in space relative to gravity

Function:

- Vestibular input gives us information about where we are in space, how fast we are moving, and what direction we are moving.
- Contributes to our posture and tone

Behaviors you might observe with the Vestibular System

Over (Hyper)-sensitive

- Fearful reactions to ordinary movement activities
- Difficulty learning to climb or descend stairs or hills
- Apprehensive walking on uneven or unstable surf
- Seem fearful in space
- Appear clumsy
- Want feet on the ground



Behaviors you might observe with the Vestibular System

Under (Hypo)-sensitive

- Actively seek and demonstrate a need for intense movement experiences (body whirling, jumping, spinning, spinning objects, pacing, rocking)
- Trying continuously to stimulate the vestibular systems (*even visually*)



If You Are Concerned About Your Child's Sensory Processing?

Ask for an Occupational Therapy (OT) assessment specifically related to sensory processing

An OT can recommend specific interventions to meet your child's specific needs

OCALI Lending Library



Search Key Word: Sensory

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