



*Baby Behaviors:  
Windows To Sensory  
Processing*

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An overview for parents and early interventionists of sensory processing development in young children.

Review of sensory play opportunities and discussion of typical and atypical behaviors important to our understanding of infants and young children.

“Helpful Hints” for caregivers for observing and helping children with their sensory development.

# Name That Sense!

Sign in please.....

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# Name That Sense!

Sight (Vision)

Smell (Olfactory)

Hearing (Auditory)

Position (Proprioception)

Touch (Tactile)

Movement (Vestibular)

Taste (Gustatory)

# Proprioception

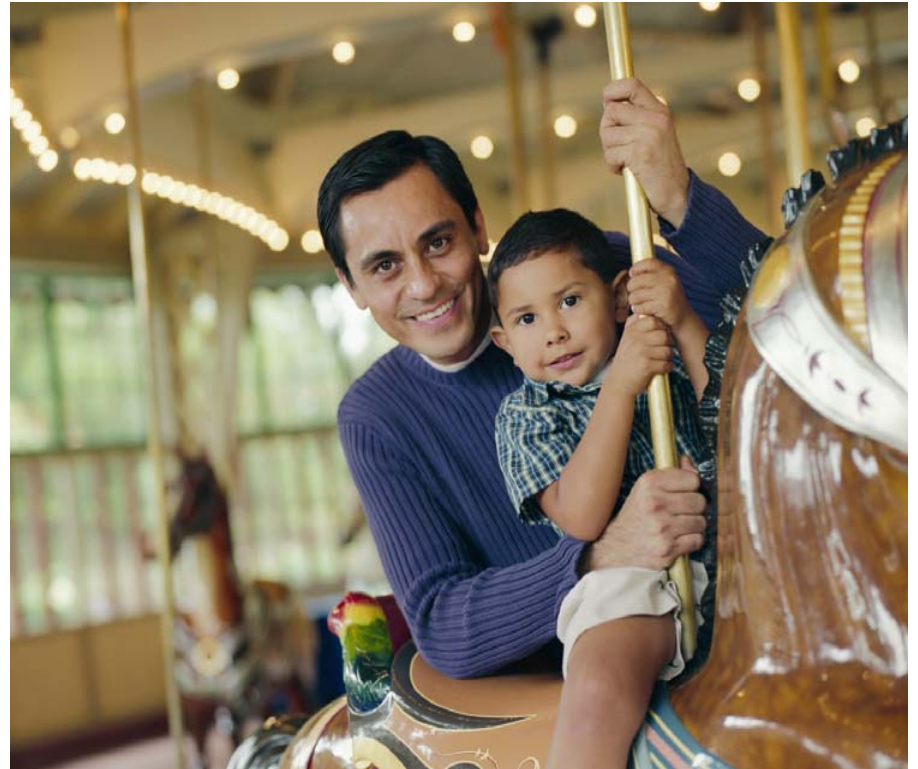
Sensations from  
muscles and joints.



- Receptors in muscles and joints that are stimulated as children move and play.
- This sense is important for a healthy awareness one's self, of where one's body is in relation to the environment, and for gross and fine motor development.
- Climbing, pushing, and pulling are important ways that children develop this sense.

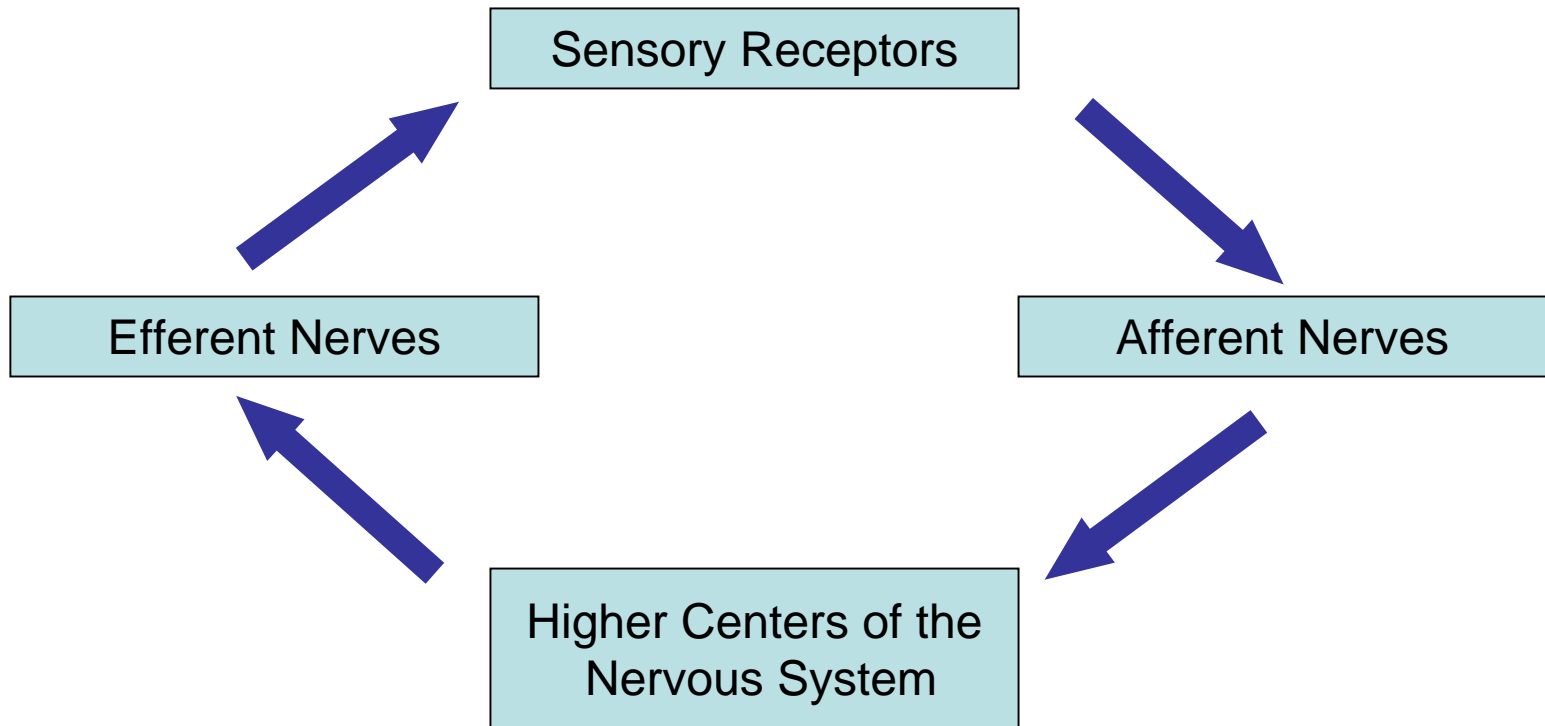
# Vestibular

Sensations from the inner ear received during movement.



- Receptors in the inner ear help us sense movement and gravity. Am I upside down, swinging, stopped, or going around in circles. Am I dizzy? Should I stop?
- This sense is important for the development of balance, coordination, attention and emotional state, and muscle readiness for movement (muscle tone). It can effect a child's ability to transition from one daily activity to another and as well as overall activity level.

# Feedback Loop



- Sensory receptors: from skin, joints, inner ears, mouth, nose, eyes, and our internal organs.
- Afferent nerves: send information from receptors to the Central Nervous System (CNS).
- Higher Centers: CNS: arousal is adjusted (is this an emergency?) and information is filtered, organized and sent to appropriate brain centers.
- Efferent Nerves: CNS sends outgoing messages to muscles and organs for behavioral response.
- The cycle continues to create memory, adaptive and automatic responses.



*Why Is  
Sensory Integration  
Important?*

So children can reach for the stars !

Sensory processing effects children's most basic and most complicated interactions with the world around them. Each child's ability to explore, play, listen, learn new tasks, and socialize with others relies heavily on a balanced sensory system. We will see that these basic, sensory building blocks support the development of higher level skills.

“Baby in the Mall” story

# Building Blocks for Higher Learning

Academics: concepts, reading, writing, math
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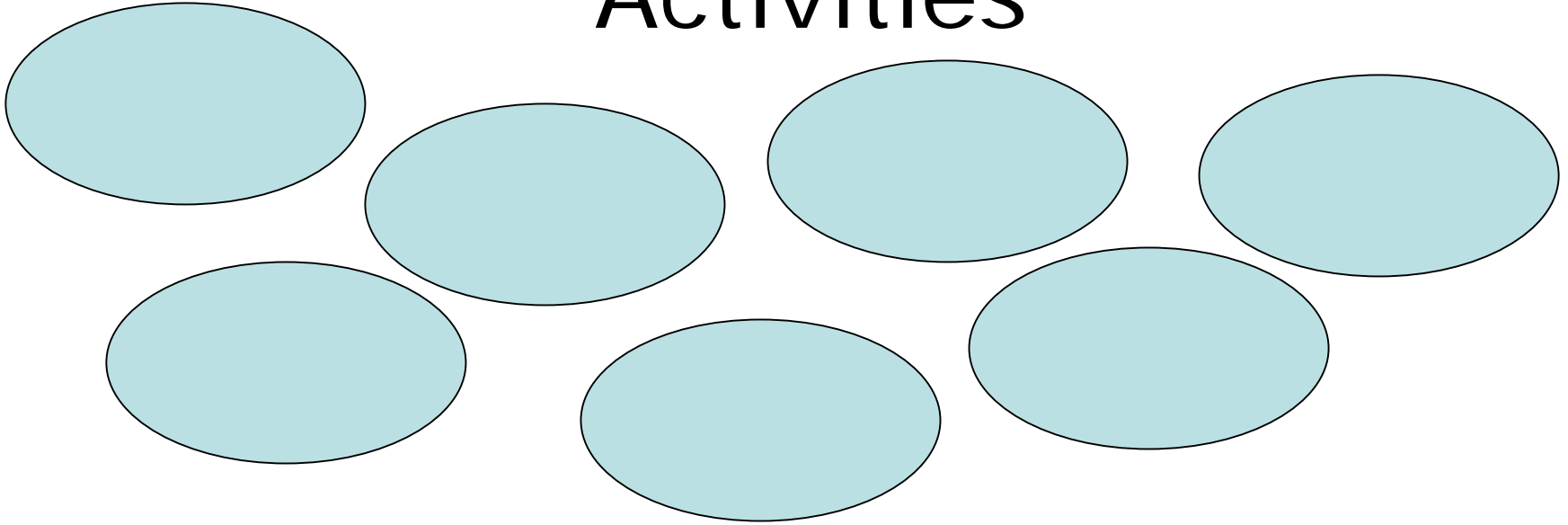
Speech/Language	Visual Motor	Visual Spatial
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Body Scheme	Balance	Bilateral Coordination	Motor Planning	Posture
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Smell	Hearing	Vestibular	Tactile	Proprioception	Sight	Taste
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- Depiction of a pyramid of developmental abilities, the foundation of the pyramid being basic sensory pathways.
- If the basic sensory building blocks do not provide a firm foundation for exploring the environment (including imitation), then learning higher level skills will be much more difficult.
- Social and emotional development are also effected.  
(explain)
- If the foundational abilities are not able to be relied on then the pyramid is like a house on shifting sands; it is more difficult to keep the upper abilities functioning.

# Building Blocks for Daily Activities



Speech/Language	Visual Motor	Visual Spatial
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Body Scheme	Balance	Bilateral Coordination	Motor Planning	Posture
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Smell	Hearing	Vestibular	Tactile	Proprioception	Sight	Taste
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When we look at the development of infants and young children, the lower tiers of the pyramid directly influence a child's ability to actively and comfortably engage in the routines of daily living.

# Behaviors

Windows to understanding  
babies and toddlers better

# “Normal”

Wide range of individual differences  
in sensory preferences and temperaments



All infants and toddlers use these senses, however some preferences may be noted



# Temperaments

- The Easy Child
- The Slow to Warm (or Shy) Child
- The Difficult Child

The easy child: regular in biological functions (eating, sleeping, eliminating); adapts easily to change; has a pleasant, positive mood in most situations and for most of the day.

The slow to warm child: withdraws from many new experiences but can slowly move from initial withdrawal to participating positively to the new activity/situation.

The difficult child: has irregular biological functions; adapts slowly to change; withdraws from new situations, people, and places; often reacts intensely; is grouchy and fussy most of the time; sometimes very motor driven; wants to be in charge.

# Sensory Preferences

- Vision
- Tactile
- Auditory
- “On the Move”

# Observing Behaviors

Hyposensitive

Normal

Hypersensitive





# Hyper-sensitive

## “Sensory Avoider”



- “Over-sensitive” reaction in one or more sensory pathways. Touch, movement pathways are easiest to recognize
- Fight/Flight/Fright behaviors: Impacts trust and attachment
- Non-participator in many typical, age appropriate activities; most often plays alone; perimeter walker or fearful of playground
- May be highly distractible (being too close to others; sounds; smells) or display hyperactivity
- Is very rigid when performing daily routines and has difficulty with changes in routine, transitions, or surprises
- Often seeks out quiet place (under a table, in quiet corner), watches others
- Gets “stuck” playing with the same toys, even after mastery is accomplished, because they feel safe and comfortable

# Hypo-sensitive "Sensory Seeker"



- “Under-sensitive” reactions in one or more sensory pathways; again, touch and movement pathways most easily recognized
- Need for repeated or stronger sensations: crashing or rough play, hugs or plays too hard, makes noises, holds crayons hard
- Difficulty making friends due to rough play or playing too close to others
- Difficulties with transitions, sometimes stuck in what they are doing, sometimes too busy seeking stimulation to change activities
- Sometimes show low energy levels, most often appear tired and uninterested
- The “Bull in the China Shop”

One Behavior Does Not A  
Syndrome Make!

- As long as a child is developing motor, self help, social, and cognitive skills within a normal range for their age then we assume sensory processing is functioning adequately for that child.
- It is important to always acknowledge and respect typical behavioral patterns related to growth and development.
- Children don't have "sensory processing difficulties" all of a sudden.
- We look for *patterns* of behavior not single occurrences.

# Red Flags in Daily Activities



- Consistent difficulties in everyday routines after ruling out hunger, fatigue, diapering needs, illness, medication, major changes in typical routines, etc.
- Difficulty with transitions
- Difficulty regulating emotions

# Feeding

# Dressing

# Bathing

Sleeping

Playing

# Outings

Observe, Observe, Observe



Document, Document,  
Document

- If you see behaviors that concern you, begin to observe and document for yourself.
- Keep a log of behaviors over a two week period.
- Observe and note what seems to calm the child and what seems to excite them.

Not all challenging children are experiencing sensory processing dysfunction.

It is an area, however, that can make a difference in helping to calm or alert babies and young children so that life is easier for them and their families.

# When might a child need an evaluation for sensory processing difficulties?

- Documentation from the log leads you to suspect there might be sensory issues.
- The child has difficulty successfully participating in daily activities when all other developmental prerequisite skills appear to be in place.
- Communication among all child care providers indicates that there may be sensory issues interfering with daily activities and development.

# Remember

- Early detection means early intervention at an age when children make the most progress.
- If sensory dysfunction is found, children can be helped through therapeutic interventions.
- There are many easy strategies to help children participate in daily activities both at home and in childcare.

# Helpful Hints for Families



# Calming

# Alerting

What a young child might  
tell us.....



- I want to please. (look beyond bad behavior to what the causes might be; importance of sensory log and cluster of behaviors)
- I know how much I can take in, please try to understand me. (acknowledge feelings without judgment; offer but don't force for sensory activities)
- Stress heightens my sensitivity. (allergies, asthma, medication, illness, home changes, hunger...behaviors can backslide)
- I like to be successful, even if I need a little help. (child level activities; celebrate the process and trying)
- I need to trust you as an adult. (consistency with kindness; limits and safety)
- I like to try all by myself. (give children the time to try age appropriate activities before you step in; children vary in time to process and take action; exploration and figuring things out themselves is part of the learning experience; process vs. product for art especially)
- Love me; I am doing my best. (cherish quiet times and noisy ones. Your actions and words have a great impact on the little ones you work with. Make it positive.)