

# Practical Approaches to Sensory Processing

Hannah Peck, OTR/L

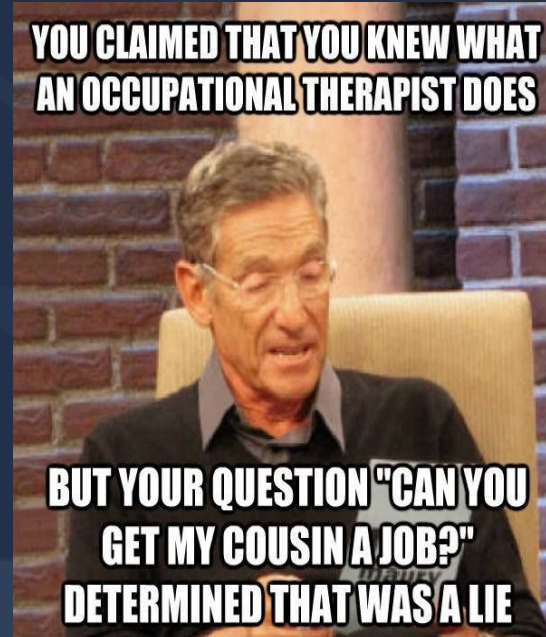


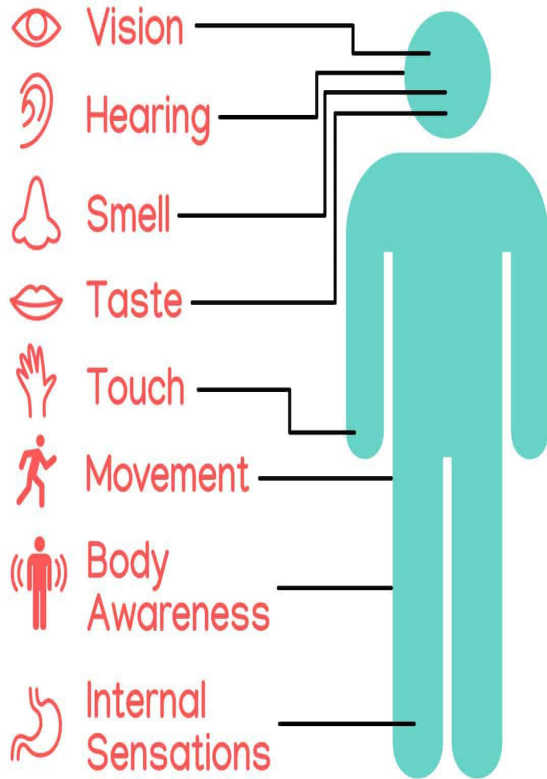
UR  
MEDICINE



# Objectives

1. Sort out all of the sensory terms
2. Understand how sensory processing skills impact daily function
3. Understand how sensory processing difficulties can impact function
4. Review a practical approach to addressing sensory processing difficulties





- Perceive and interpret our surroundings
- Detect, locate, and identify sounds in the environment
- Detect and recognize smells using chemical receptors in the nose
- Detect difference between sweet, salty, sour, bitter, and savory
- Perceive pressure, temperature, traction, and pain
- Balance, motion, and spatial orientation
- Intrinsic ability to locate itself and extremities in space.
- Recognize internal cues

# What is Sensory Integration?

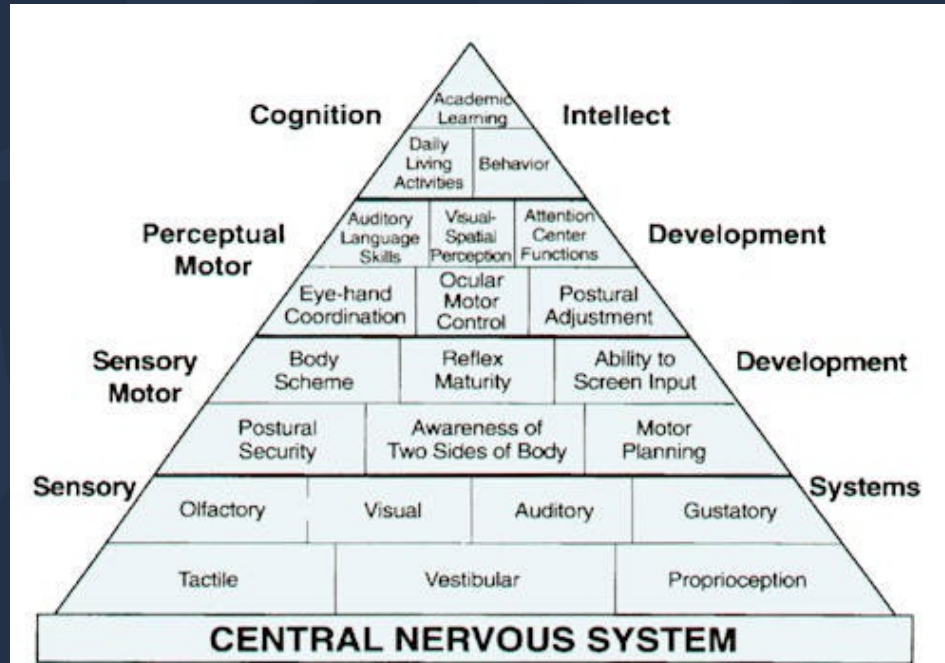
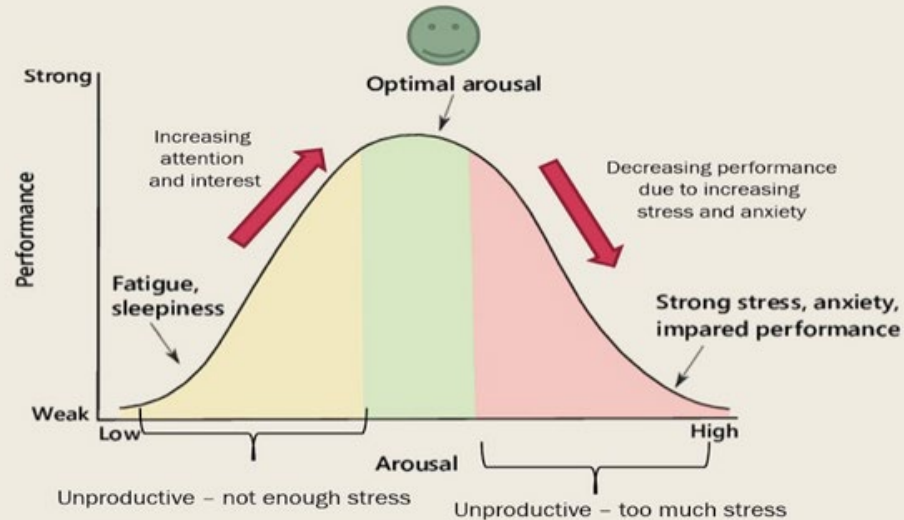
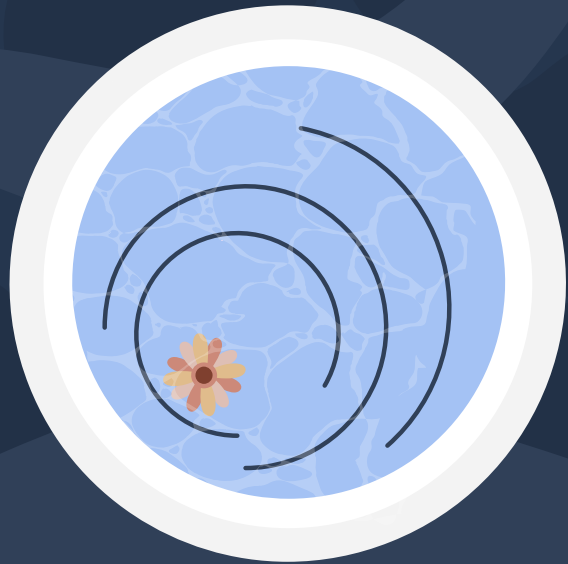


Figure 5. Pyramid of Learning. (Williams & Shellenberger, 1-4)

# Modulation and Regulation

## The Yerkes-Dodson Law: Inverted U-Model





90% of children with an  
ASD have some difficulties  
with sensory processing

# Sensory Processing Difficulty

## **Low Registration**

- Appear uninterested
- Have low endurance
- Miss information in their environment

## **Sensory Seeking**

- High neurological threshold
- Active
- Impulsive & disorganized

## **Sensory Avoiding**

- Exposure limitations to stimuli
- Avoid meeting sensory threshold
- Association with emotional reactivity

## **Sensory Sensitivity**

- Overwhelming Sensations
- Low neurological threshold
- Fight, flight, or freeze

# Impact of Sensory Processing Difficulties

- Decreased initiation of social contact
- Picky eater & poor nutrition
- Poor focus
- Increased activity level
- Difficulty with daily tasks
- Poor transitions
- Passive personality
- Perceived as intense or make others uncomfortable
- Difficulty engaging in family outings
- Difficulty participating in “typical” leisure activities
- Self-Injurious behaviors
- Emotionally reactive
- Inconsistent pain responses
- Bowel and bladder dysfunction



# ABC'S of Sensory Processing Difficulty

## Antecedents

Florescent lights  
A baby was crying  
Crowded  
Still in winter coat, then over heated  
Navigate around the chairs



## Consequences

Sad they missed out  
Possibly feeling guilty  
New transition  
Positive/Negative Reinforced



## Behaviors

Crying/Tantrum  
Increased Stimming  
behavior  
SIB



# Now What?

1. Sensory Integration Theory : Engineering and adjusting the sensory qualities in the child's environment to promote self-direction and play while facilitating adaptive responses in motor, affective, social, language, and cognitive areas

Modify / Adapt

Accommodate

Rehabilitate

# What Can You Do?

## Antecedents

- Modify environment
- Accommodate
- Challenge

## Consequences

- Maintain participation
- Learning coping
- Feel Better
- Learning new skill
- Made a positive connection with an event



## Behaviors

- Decrease stimuli
- Provide Deep Pressure
- Distract with special interest when possible

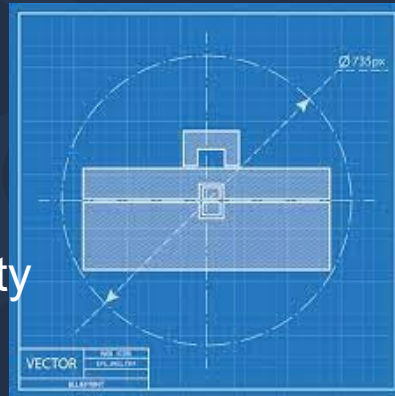
# Create your toolbox

## 1) What functional difficulty do you want to address?

- “My child cries every morning putting their clothes on for school”

## 2) What is the sensory difficulty impacting function?

- Learned through experiences that some clothes can feel itchy, restricting, uncomfortable



## 3) What strategies can we use to support the sensory difficulty?

- Buy different clothing
- Heavy work before, during, after
- Practice with the sensation
- Provide positive reinforcement

## 4) Trial and error

- Try a variety of strategies and decide what works best for you and your child

# Accommodate/Modify

## Home/Community:

- Become involved in physical activities in the community
- Provide opportunities for vestibular input (Swing, Spin, Being in different positions)
- Encourage tactile play
- Create spaces for decreased stimuli– Burrowing spaces
- Work movement and calming sensory input into daily tasks
- Use timers, stop watch, or play lists as auditory and visual cues
- Prepare for transitions
- “Sensory Diets”

## School:

- Recess
- Mobile seating devices
- Visual and kinesthetic learning
- Chew and fidget toys
- Work in various positions
- Heavy work activities
- Callisthenic breaks
- Prepare students for transitions
- Noise cancelling opportunities
- Create opportunities to reduce sensory load

Thank you!



# References:

- Como DH, SteinDuker LI, Polido JC, Cermak SA. Oral Health and Autism Spectrum Disorders: A Unique Collaboration between Dentistry and Occupational Therapy. *Int J Environ Res Public Health*. 2020 Dec 27;18(1):135doi: 10.3390/ijerph18010135. PMID: 33375475; PMCID: PMC7795681
- Costa-López B, FerrerCascalesR, RuizRobledillo N, Albaladejo -Blázquez N, Baryła-Matejczuk M. Relationship between Sensory Processing and Quality of Life: A Systematic Review. *J Clin Med*. 2021 Aug 31;10(17):3961. doi: 10.3390/jcm10173961. PMID: 34501408; PMCID: PMC8432132
- <https://connections pediatric.com/2019/05/09/sensory-pyramid/>
- <https://www.ghcot.com/2019/08/25/606/selecting-the-best-classroom-sensory-tools-by-michelle-beckwith-otr-l>
- <https://www.twentyonesenses.org/>
- Schaaf, Roseann & Nightlinger, Kathleen. (2007). Occupational Therapy Using a Sensory Integrative Approach: A Case Study of Effectiveness. *The American journal of occupational therapy : official publication of the American Occupational Therapy Association*. 61. 239-46. 10.5014/ajot.61.2.239