

MAKING SENSE OF SENSORY PROCESSING

- Our bodies and the environment send information to the brain through our senses
- We process and organize the information to feel comfortable and secure
- We are then able to respond appropriately



Visual System

- Makes sense of what we see
- Knowledge of spatial orientation, direction, colour, form, and brightness of an object



Auditory System

- Makes sense of what we hear
- Recognizes and interprets sound
- Helps us identify the sound location



Smell (Olfactory) System

- Makes sense of what we smell



Taste (Gustatory) System

- Makes sense of what we taste



Touch (Tactile) System

- Makes sense of what we touch
- Function is protection
- Impacts fine motor skill development



Proprioceptive System

- Tells us about the position of our body parts, their relation to each other and to other people and objects
- Receptors located in muscles, tendons, joints and ligaments



Vestibular System

- "Balance and movement" sense
- Helps us to maintain our posture and balance
- Receptors located within the ear structures



Interoceptive System

- Identifies signals from the body that tell us how we are feeling
- Important part of self-regulation

IF WE CANNOT FILTER SENSORY INPUT EFFECTIVELY THEN OUR SENSORY SYSTEM MAY OVER-REACT (OVER AROUSAL) OR UNDER-REACT (UNDER AROUSAL):

Over Arousal Red Flags

- Distress with certain sounds
- Sensitivity to light
- Discomfort with certain texture
- Aversion to certain smells and tastes
- Irrational fear of heights and movement
- Frequent startle reaction

Strategies & Activities for the Over-Aroused Child

- Deep pressure touch
- Heavy work, and oral motor work
- Slow swinging
- Rocking chair, sitting on a t-stool or therapy ball
- Calm scents (i.e. vanilla, lavender)
- Headphones, quiet space, soft music
- Natural or dim lighting
- Limited pictures/clutter, away from windows/door

Under Arousal Red Flags

- Disregard of sudden or loud noises
- Unaware of painful bumps, bruises, cuts, etc
- Absence of startle reaction
- Lack of attention to environment, persons or things
- Lack of dizziness with excessive spinning
- Delayed responses

Strategies & Activities for the Under-Aroused Child

- Cold, crunchy, spicy or sour tastes and textures for food
- Lots of different textures
- Peppermint and lime scents
- Loud, fast music, with changes in tempo and volume
- Crash mats, jumping jacks, trampoline, animal walks
- Spinning, rolling, somersaulting (caution needed with these activities to avoid overloading)

Universal Strategies: Visual supports, create a "chill zone", build in supports during transitions, deep pressure