The Forgotten Senses: The Importance of Proprioceptive and Vestibular Sensory Input on Self-Regulation



Dr. Ali Temple, OTR/L: www.firstpriorityot.com; firstpriorityot@gmail.com

	Proprioception	Vestibular
Definitions	External body awareness: The system is in our muscles, tendons, ligaments and joint receptors. It tells us where our body is in space and detects and controls force and pressure. It helps us to feel grounded and know where we are and what we are doing.	Balance and Spatial Orientation: The system in our inner ear responsible for changes in position, direction, or movement of the head. The system contributes to our body awareness, posture, muscle tone, balance, and gravitational security.

	Proprioception	Vestibular
Seeking Behaviors	 Enjoys bumping, jumping, and crashing into both people and objects Prefers rough play and always "wrestling" Tends to stand too close to others Craves pressure, squeezes, and bear hugs 	 Appears to be very hyperactive Constantly in motion- running, jumping, spinning, climbing, leaning, etc. Loves being upside down Engages in fast, impulsive, or unintentionally rough movement, forceful Unable to sit still for short periods
Seeking Supports	 Have students assist with classroom "chores" that puts pressure on their joints, such as carrying bags or moving chairs Encourage safe and frequent climbing, jumping, and running Use a weighted blanket, deep pressure squeezes, or bear hugs to provide pressure Animal walks, wall push-ups, chair push-ups, and movement breaks Encouraging crunchy snacks during lunch 	 Encourage playing on swings, bicycles, trampolines, and monkey bars Provide a variety of seating options, such as wiggle seats, bean bags, or rocking chairs Use footstools or resistance bands around chairs Schedule regular times throughout the day to run in place, do push-ups, jumping jacks, or yoga

	Proprioception	Vestibular
Avoiding Behaviors	 Avoids hugs/other types of physical contact Avoids physical play Shows anxiety or extra caution around swings, slides, or other playground equipment 	 Prefers sedentary activities and avoids playgrounds Feels unsteady and needs support Becomes nauseous with movement activities (cars, roller coasters, etc.)
Avoiding Supports	 Avoid hugs and other types of physical contact; offers high fives or fist bumps Give verbal and/or visual cueing prior to activities with movement Start with softer activities close to the ground and build up tolerance to larger body movements 	 Hold a child's hand while walking or balancing to provide grounding and support to build confidence Use a footstool if your child's feet can't comfortably touch the ground while sitting