

**SELF-MOVEMENT SENSE/PROPRIOCEPTION**

- The Self-Movement/Proprioceptive sense allows us to sense our own movements and to gauge the appropriate amount of effort for a task.
- Proprioceptors are within muscles, tendons, and joints to detect changes in movement and position, along with helping to gauge adequate force/effort for the task.
- When developed, this system works unconsciously, so that movement is automatic without the need for conscious attention. When attempting/learning a new movement/task/skill one is consciously engaged; following enough practice and sleep the the new ability is 'imprinted' and becomes a habit—thus being performed unconsciously.
- It also informs oral motor function for accommodating food in the mouth and to chew with adequate effort/force, and to speak and sing without spitting/slurring/mispronouncing.
- Proprioceptive system helps us to self-regulate—to efficiently focus on the task at hand with the sense of LIFE in response to the challenges from the proprioceptive system.
- When proprioception is fully integrated the muscle tone is neither hyper- nor hypo- active except in response to sudden/unexpected changes of position or when struggling to learn a new task.

**What do we observe when this sense is underdeveloped?**

Consider: Basic feedback from this sense is **"how much effort do I need for this task?"**

We see:

- Students who are not fully sensing their own movements work harder to accomplish less much of the time.
- lack of ability to gauge effort to match the task—results in excess tension or looseness or combination of both
  - too much or too little force to complete the task/activity with fluidity and ease.
  - writing challenges—pencil grasp (too tense or too loose, press too hard or too light,
  - aiming and other bb/ball activities—repeatedly over/under toss and/or grabbing/dropping
  - tension/frustration resulting from unneeded compensatory movement
- Repeatedly doing something differently from what you are showing them
  - discrepancy between what they see and what they do—they don't perceive that they aren't doing the movement as you are showing them
- Awareness of body—position, etc—especially limbs—inadequate level of feeling of limbs—especially feet and hands;
  - Frequent dropping of bb
  - Hitting leg when trying to pass bb underneath;
  - frequent stumbling/tripping/falling;

- trouble navigating moving through space—bump into, spill or drop items
- Poor balance; run/move quickly, suddenly or dragging behind the others instead of walking fluidly with ease
- Heavily rely on visual input—look at feet as step, fine motor challenges, challenged to do Body Geography activity (especially with eyes closed)
- Sensory seeking—tendency to crash into things/people, engage in rigorous hugs, wear tight clothing—also due to weak tactile integration
- Poor posture—lean against things/others for support
- Overflow—oral motor, fine motor, gross motor, etc
- Reversals of archetypal motions (of limbs, fingers)

### How do we support?

- will explaining more help? NO—the child experiences that they ARE doing what you TOLD them to do.
- Will showing help? POSSIBLY—if can imitate; however, many cannot imitate well since motor planning is underdeveloped
- Proprioceptive input HELPS; appropriate input is felt/experienced

**Main point: the child experiences that they are doing what you have described or demonstrated—but they can't feel that they are doing something differently—so help them to FEEL it. Also helpful is using images to guide the movements you are demonstrating—brings the attention away from trying to control motions they cannot sensorily experience.**

Extra Lesson section for **Body Geography** are all good exercises for specific Proprioceptive support. A few examples are listed here—see more in the Extra Lesson book

- **Wool Winding (7+)**—encourages radius + ulna harmony between stretching vs lifting;
- **Cubes Between Fingers (7+)**—good for tension in hands and jerky arm movements; for those who drop or grab at bb;
- **Marbles between toes (7+)**—if too difficult, start with pick up and drop (+ walk on heels to carry to place to drop). Good for feet that are immobile or unconscious.
- **Finger walking on the rod (7+)**— for finger dexterity, awkward/tense/loose PG—add speech if there is oral motor overflow.

- **Body Geography**—encourages development of inner body map; helps right vs left confusion—performing with eyes closed is helpful as the proprioceptive experience is enhanced.
- **Tracing & Coloring Hands (7+)** — to learn L vs R (good homework)
- **Foot writing (7+)**

#### **Other helpful activities:**

- Opportunities for heavy work—gives input to joints & muscles
- Developmental Movements—encourages development of this system
- Activities with weighted objects—alternating/changing weight—pilates balls, bags of sugar/sand or sand-filled balls
- Jumping down from things with firm landing with both feet in specified place.
- Crunchy chewy snacks/gum
- Using weighted balls for two-handed tossing back and forth

Our abilities to **perceive** what the children are telling us is the most helpful. They are showing an outer expression of an inner experience. Our task--build skills of observation & perceiving for what the children are showing us. Notice the gesture of what input the student is seeking to guide you. Example: Burros with packs on their backs vs “pig pile” rough play.

TOUCH—mediates awareness of our form/corporeality + connectedness to higher self/divine LIFE—subconscious awareness of our well-being or conscious awareness of our ill-being

#### **S-M—feeling of being free (through our mobility)**

*“The sense of movement is expressed in what takes place in us when, through contraction and elongation of our muscles, we perceive whether we are walking or standing still, jumping or dancing. We perceive whether or how we are in motion through this sense of movement. When it is radiated into the soul, this sense results in that feeling of freedom which allows [the human being] to sense [self] as soul, namely, the experience of one's own free soul element.*

***The fact that you experience yourself as a free soul is due to the effects of the sense of movement”*** (1920: Spiritual Science as Foundation for Social Forms: Lect 3 GA199).

#### **This movement sense gives experience of autonomy.**

*“When our overall body-soul condition is such that in its involuntary intercourse with the world we feel ourselves to be free and mobile beings, integrated into that world's movement patterns,*

*when we have a simultaneous experience of both [autonomy] and connectedness, this results in a definite soul grounding” (2001, Köhler, H: Working With Anxious, Nervous and Depressed Children, p 86).*

This gives us confidence to summon up a new impulse to move on in life, to change direction, to develop initiative—**to adapt; resilience.**

**For children: their inner composure develops gradually.**

They don't experience themselves as “*freely mobile beings, meaningfully integrated into the world's movement patterns.*” This development needs time.

(2001, Köhler, H: Working With Anxious, Nervous and Depressed Children, p 86).