

# PROPRIOCEPTION – The sense that calms, alerts and improves focus....

## What is Proprioception?

- Our body's ability to know where it is at any given time
- Stimulated by **pressure** to the receptors all throughout our body
- Input body receives from **squeezing** through a tight space, **hugging, jumping, climbing, lifting, pushing and pulling** heavy objects, including one's own weight, **pushing joints together** like pushing something heavy or **pulling joints apart** like hanging from monkey bars

## Two Types of Child

### 1 Proprioceptive Seeker (the most common)

- Hyperactive
- Chews on everything
- Hides in tight spots
- Loves heavy blankets
- Plays roughly, shouting, jumping, running excessively, pushing too hard
- Crashes into things on purpose
- Over-steps personal boundaries
- Hold onto objects tightly

### 2. Low Proprioceptive Registration (when the proprioceptive system isn't registering)

- Clumsy, poor motor skills, uncoordinated
- Low energy
- Sleepy or lies down a lot, lacks inner drive to move or play
- Bumps into wall and objects, not seeming to notice them
- High pain tolerance
- Seems unaware of messy hands, clothes or how things feel

# ACTIVITIES

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| <ul style="list-style-type: none"><li>● Stack or unstack chairs</li><li>● Lift heavy items</li><li>● Use of lap pad</li><li>● Wear a backpack when walking</li><li>● Bouncing on top of a therapy ball</li><li>● Rolling on tummy over a large therapy ball and using arms to hold up</li><li>● Kicking and throwing</li><li>● Climbing over things</li><li>● Chewing</li><li>● Jumping jacks</li><li>● Weighted vests or blankets (no more than 10% of child's body weight)</li><li>● Firmly press on child's arms legs and back with pillows</li><li>● Make a "burrito" by rolling child up in a blanket</li><li>● Push a scooter board (especially with hands while riding on tummy)</li><li>● Push wheelchair/trolley/wheelbarrow with heavy items around</li><li>● Let children open doors themselves!</li><li>● Using a stress ball</li><li>● Squeezing play dough</li><li>● Chair push ups</li></ul> | <ul style="list-style-type: none"><li>● Push ups</li><li>● Playing in a body sock</li><li>● Joint compressions</li><li>● Pull on a rope</li><li>● Squeeze into tight spots</li><li>● Lie under therapy ball, beanbag or weighted blanket</li><li>● Firm massage</li><li>● Sit on a wobble seat or wobble cushion</li><li>● Jump – on trampette</li><li>● Hold adult's hands and jump to a rhythmic song</li><li>● Vacuuming</li><li>● Carry or hold a heavy item or box</li><li>● Stretch band tied around the legs of a chair</li><li>● Stretch band tied onto something or held by an adult for pulling</li><li>● Crawling through a tunnel or under objects</li><li>● Push/pull heavy items</li><li>● Use therapy ball as a seat</li><li>● Wash windows</li><li>● Drinking through a straw</li><li>●</li></ul> |
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# VESTIBULAR–Sense of Movement and Body Position

## What is Vestibular Processing?

- Sensation of any change in position, direction, or movement of the head and body's position or direction in space and whether we are moving with or against gravity, fast or slow, moving or still

## How Vestibular Difficulties affect Behaviour

- A problem with vestibular processing means the body doesn't know how to move and react to the environment.
- This lack of confidence can be very scary and can affect confidence and security
- Can cause children to be **fearful, impulsive, and/or controlling**

## Two Types of Child

### 1 One in Constant Motion – Under responsive to movement therefore needs to move a lot to register

- **Fidgety** with **impulsive** behaviour (**jumping, running, and climbing**)
- Needs to be in **constant movement (rocking, swaying, spinning), runs** everywhere
- Appears never to be dizzy from spinning
- **Headbanging, shaking or hitting, rocking, twirling, pacing**
- **Running away**

### This child can be calmed with ....

- Calming movement breaks
- Predictable movement
- Slow rhythmic movement
- Linear (one direction) movement

### 2 Hypersensitive/over-responsive to movement - avoids activities, sedentary and unwilling to move

- Frequent sitting, refuses, or is reluctant, to engage in movement activities
- Difficulty jumping, climbing, swinging, taking calculated risks in play
- Appears clumsy and uncoordinated, has low muscle tone
- Moves cautiously and slowly, stops engaging in movement activities after a short time
- Stops engaging in movement activities after a short time
- Fatigue/lethargy

**This child can be alerted with ...**

- Unexpected, rapid movement, changing direction
- Bouncing on a therapy ball, dancing, walking, swinging in different directions
- Walking barefoot on uneven surfaces such as grass or sand
- Balancing, climbing, crawling, spinning
- Standing on a balance board
- Jumping on a trampette

## **ALL VESTIBULAR ACTIVITIES HELP THE BODY'S VESTIBULAR SYSTEM**

### **HOWEVER...**

**Always respect that some alerting activities can be too challenging for a child who is over-responsive to vestibular movement. Be sensitive and guided by the child.**

**Alerting activities may increase activity if used with an under-responsive child who is already very active**