

# Talking Matters

[www.talkingmatters.com.au](http://www.talkingmatters.com.au) Ph: 8255 7137  
Helping your child to reach their potential



## Developing body awareness or proprioception

*Proprioception is a person's awareness of their own body in space. This sense allows us to keep track of where our body parts are without having to look at them. While you are sitting and reading this you can reach down and scratch your knee under the table because your body knows where both your knee and your hand are without having to look at them. Without this sense this simple action would be much more difficult.*



**Proprioception works through an awareness of how our muscles are stretching and adjusts the contraction of our muscles as needed.** It works with "kinesthesia" a sense that tells us how our joints are moving and the "vestibular system" in our inner ear which tells us about balance and gravity. All these help us to make adjustments in our joints and muscles to help us move our body and keep our balance. It sounds complex yet we do it all the time without even being aware of it.

**Proprioception works when sensors in the muscles tell the brain about muscle stretch, tension and pressure.** The brain needs information from many sensors or "muscle spindles" to control movements. **Muscles used for fine, small movements such as our fingers have many spindles**, while those used for larger movements have less. **Arms and legs also have many spindles so we can stay upright and keep our balance.** The brain also gets information from tendons, joints and ligaments. All this information is processed in the brain which then decides if muscles need to be moved or adjusted. Some of these movements are done unconsciously such as adjusting our balance while others are conscious such as threading a needle.

**Some children have difficulty with body awareness or proprioception.**

**Some signs of difficulty with this sense include:**

**Sensory seeking behaviours.** These children seek out movement and information from their body by jumping, bumping, stamping, rough play and crashing into things. They love tight clothes, to be tightly wrapped and tightly hugged. They love activities which involve pushing, squashing or banging things such as play dough, squeezable toys and hammering activities. They may bite or suck their fingers.



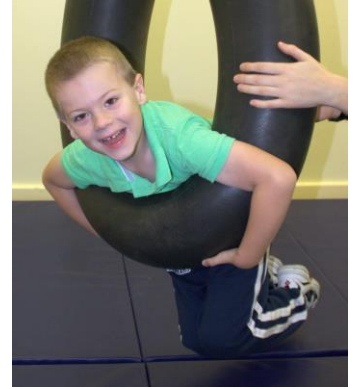
**Difficulty controlling the amount of movement needed.** These children often appear rough and seem too often break things. They may push too hard or too softly on pencils, misjudge movements and be too rough with other children or pets. They may hug others too hard and slam doors. They may spill, drop or knock over things because they use too much or too little force when lifting or moving things.

Providing lots of opportunities to receive information through their proprioception system means children's need to seek this information will reduce. This allows them to be calmer and more focused on other activities and reduces unwanted behaviours. **These activities also help children to "fine tune" their body awareness** and so control their muscles better, making them more accurate and efficient with daily activities.

**"Deep pressure" and "heavy work" activities are good ways for children to get information from their muscles to stimulate and develop their proprioception.**

**Some ways to provide deep pressure include:**

- firm hugs, and massages throughout the day.
- moving in between activities such as pretending to walk like an animal such as a bear, cat, frog, rabbit, kangaroo; jumping, dancing or stamping, having a "wheelbarrow" race.
- lifting and carrying things around the house such as unpacking the shopping, carrying toys in buckets or boxes and playing with bigger, heavier toys.
- using hot water bottles, sit and move cushions and changing position often



**There are many ways to include deep pressure and heavy work activities into your child's daily routine. Try some of these:**

**Inside play:**

- using weighted toys, vests and blankets
- playing with toys that vibrate, and things to squeeze such as play dough and stress balls
- throwing small bean bags and balancing them on your hands, head and arms
- jumping on large bean bags, bouncing on fit balls, having a pillow fight, doing some rough and tumble play,
- dancing, jumping and clapping to music
- rolling, squeezing, pushing, pulling and poking play dough, putty or plasticine
- using some chewy toys
- popping some bubble wrap with your fingers, jumping on it or rolling on it
- blowing some bubbles or blowing a musical instrument

**Outside play:**

- hanging from climbing bars, riding bikes and ride on toys
- activities that involve pushing or lifting such as digging in sand, pushing trucks, prams and wheelbarrows,
- pouring water in containers and squeezing wet sponges
- jumping on the trampoline or playing tug-of-war
- swinging, climbing, jumping or rolling

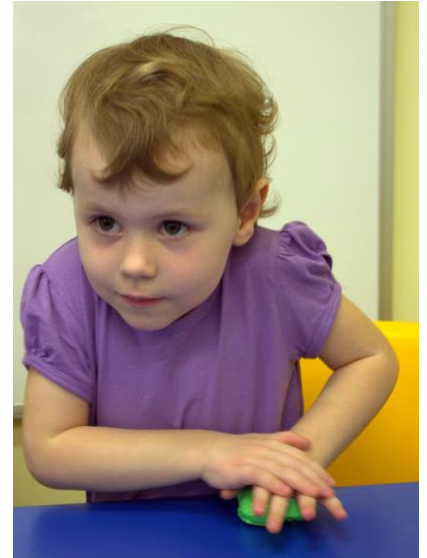


**In the kitchen:**

- sucking water through a long or thin straw or thick liquids such as smoothies through a thicker straw
- eating some crunchy or chewy foods such as carrot, apple, fruit bars, muesli bars, crackers
- chewing some cold foods such as ice, ice blocks or frozen fruits or peas
- helping with cooking by mixing, stirring, beating, kneading and rolling
- wiping down surfaces

**In the bathroom:**

- playing in the bath with sponges to squeeze
- pouring water in and out of containers
- using spray bottles, water pistols and squirty toys
- firm rubbing with a towel
- massaging with moisturiser before dressing.

**Helping around the house:**

- spraying then wiping surfaces or windows
- raking and sweeping
- carrying bags of rubbish or shopping
- unpacking cans from the shopping
- pulling out weeds
- carrying the washing and passing wet items to be pegged, opening and closing pegs
- washing the car
- brushing the dog
- moving the furniture and pushing the vacuum

If you are concerned about your child's movement, coordination or motor skills find out how an occupational therapist can help your child.

Developing your child's proprioception will help them to be calm and focused when performing other tasks and allow them to have the balance and coordination needed for movement based activities. Also these activities can be a lot of fun!

