



SENSORY PROCESSING

PROPRIOCEPTION

What is proprioception?

Proprioception is the body's ability to sense itself by feedback gained from muscles and joints. Without good processing of our proprioceptive sense, we can struggle to have good awareness of our bodies in relation to the world around us. If we are not fully secure in our bodies, then it will be harder to focus and master skills in all areas.

What else can proprioception do?

The proprioceptive system also has an important regulatory role in sensory processing as proprioceptive input can assist in controlling responses to sensory information from all of our other sensory systems. Proprioceptive input can be very calming for those who are easily overwhelmed by sensory stimulation. But it can also be alerting for those who need increased sensory stimulation to facilitate attention and learning. Many children may seek proprioceptive input in order to regulate their emotional and behavioural responses to sensory stimulation, for example chewing their pencil when trying to concentrate in a busy class.

What do difficulties processing proprioception look like?

Children who are clumsy, uncoordinated, and sensory seeking are often experiencing proprioceptive dysfunction.

- Sensory Seeking- pushes, writes too hard, plays rough, bangs or shakes feet while sitting, chews, leans, likes high impact activities like stamping, clapping, jumping, crashing. Often children with difficulties with proprioception will self-regulate by engaging in these activities.
- Poor Motor Planning/Control & Body Awareness- difficulty going up and down stairs, bumps into people and objects frequently
- Poor Postural Control- slumps, unable to stand on one foot, needs to rest head on desk while working, leans for support

What can we do?

Increasing proprioceptive input throughout the day is useful for both giving the body the input it needs and regulating the sensory systems.

You could try providing opportunities for the following:

- Regular movement opportunities- try to combine movement and heavy work. There are a number of movement videos online that can be accessed, and that your child may be familiar with from school e.g., Songs from 'The Learning Station', available on YouTube.
<https://www.youtube.com/watch?v=NtsoBRcV-qE>
- Jobs such as helping with chores e.g. sweeping, carrying/pushing laundry basket, moving furniture, holding the door for others.
- Ripping up cardboard for the recycling
- Cooking activities such as stirring a thick cake mix or kneading dough
- Squeezing a stress ball or theraputty
- Rubbing lotion into body using firm strokes.
- Stretches e.g., using resistance bands, yoga poses.
- Deep breathing
- Push/pull activities e.g., tug of war, row the boat
- Blowing and sucking activities- using bottles for water instead of cups will allow for extra proprioceptive input
- Crunchy and chewy snacks- such as dried fruits, fruit jerky, crunchy bread, granola or flapjack bars, carrot, apple, banana chips, nuts, roasted chickpeas, popcorn.
- Deep pressure activities e.g., getting a child to lie on their tummy on a therapy ball with an adult rocking the child back n forth so the child's hands touch the floor
- Using a gym/therapy ball as a steam roller up and down the child's body firmly, the child can splay out arms and legs so it's easier for the ball to be rolled up and down the child's limbs
- Firm bear hugs
- Foot and hand massage using a lotion if the child has no allergies
- Swimming
- Climbing
- Weighted lap pads or vests
- Trial a move n sit cushion