



GIG
CYMRU
NHS
WALES

Bwrdd Iechyd Prifysgol
Betsi Cadwaladr
University Health Board

NEURODEVELOPMENTAL TEAM

ACTIVITIES TO ASSIST IN THE DEVELOPMENT OF PROPRIOCEPTION YOUNGER CHILD



Proprioception is the awareness of our body position in space. Tiny receptors located in the muscles joints and ligaments send messages to the brain as to whether the muscles are stretching or contracting, or if the joints are bent or straight. Proprioception provides us with information on where a particular body part is without the need for visual cues.

The child with reduced proprioception has difficulty interpreting the messages as to the exact location of their head and limbs. They may have difficulty planning their movement and often can present as uncoordinated or clumsy. Engaging in activities which provide proprioception regularly throughout the day will aid self-regulation and aid calming.

- ✚ **Using adventure playgrounds**, encourage Child to use the climbing frames, slides, monkey bars, roundabouts etc.
- ✚ **Soft play areas**; using soft play areas with lots of items to encourage bouncing, crashing and jumping, diving and rolling i.e. soft mats, rolls, slides etc. Children will often seek out activities in this environment to meet their own sensory needs.
- ✚ **Ball pools**; encourage child to jump into the pool feet first, to roll into the pool on his side or to crawl in face first. Child should also be encouraged to submerge himself in the pool and to sit and move his hands and feet under the balls. He could also be provided with different textured balls to locate in the pool to assist with tactile awareness.
- ✚ **Trampolining**: This is an excellent activity for the development of the Proprioceptive and vestibular senses. Child should be encouraged to use a trampoline when ever possible, however if they become over stimulated or feel nauseous after the activity this should be time limited.
- ✚ **Activities/hobbies**: Encourage child to participate in activities and hobbies that assist in the development of proprioception i.e. horse riding, swimming, running, jumping, etc. Any activity that involves child taking his body weight will assist in the development of this sense i.e. climbing, pulling himself up on ropes etc.
- ✚ Playing games that involve pulling and pushing i.e. using the scooter board, pushing a box that contains items or another child across the floor, tug of wars, pushing a shopping trolley, carrying or putting away shopping etc.
- ✚ Encourage child to participate in activities that involve crawling, in around and over items and on his tummy.

- ✚ Ask child to close his eyes and to feel different body parts without using sight. Ask him to lie on his back and to move different body parts on instruction i.e. lift your leg, put your hand on your head, put your arm across your tummy etc.
- ✚ Encourage child to engage in movement activities to music i.e. stamp your feet, clap your hands, pat your tummy etc. Encourage him to make animal shapes and movements i.e. bunny hops, frog jumps, crab walking etc.
- ✚ Encourage child to throw and catch a ball or other items i.e. large therapy ball, water balloons, beanbags etc. Beanbags can be thrown into a bucket, water balloons into a paddling pool etc.
- ✚ Bouncing on a therapy ball, this must be done with very careful supervision to ensure safety. Child should be encouraged to adopt lots of different positions on the ball i.e. prone, supine, sitting etc
- ✚ Provide a seated surface that allows movement and feedback i.e. move'n'sit or disk'n'sit cushions, therapy ball chairs, bean bags etc. This will allow Proprioceptive feedback when sitting and hopefully reduce the number of times child has to leave his chair.
- ✚ Tying some theraband or a bungee cord around the legs of the chair can also help to provide Proprioceptive feedback by allowing child to move his legs against the band when seated.
- ✚ Wrapping the child tightly in blankets, duvets or towels can also help to develop Proprioceptive input and can act as a calming strategy if distressed.
- ✚ Encouraging children to do some push-ups on the floor or against the wall or wheelbarrow walks
- ✚ Encourage the child to lie on the floor to complete jigsaws, look at a book, or match cards etc.
- ✚ Climbing is an excellent activity to develop proprioception as child will take their own body weight. Pulling on ropes, climbing nets and monkey bars are also excellent activities.
- ✚ Children should whenever possible be provided with regular movement breaks throughout the day. Access to some of the above activities prior to the start of the school day can help him to sit and attend in class. Sensory motor activities as listed above should whenever possible be incorporated into play and PE sessions.

The above are a number of suggested activities aimed at the development of proprioception. I am certain that you will develop lots of your own ideas to develop this sense.