

Toronto District School Board Occupational Therapy and Physiotherapy Services from the Special Education and Inclusion Department

Proprioception

The proprioceptive system provides feedback about the amount of force exerted by the body. Nerve receptors located in our muscles and joints send information to our brain which enables spatial orientation of our body and body parts in the space around us.

Signs of Challenges With Processing Proprioceptive Input:

- Clumsy.
- Poor coordination.
- Bumps into walls/furniture.
- Looks at their extremities to know where they are in space.
- Leans against other surfaces or other people all the time.
- Has difficulty judging the amount of force to use with their hands (e.g. using a pencil, throwing a ball).
- Engages in self-injurious behaviour (biting, pinching, head banging).

Strategies and Tips

- Heavy work is generally organizing and calming. It provides feedback regarding our bodies in space.
- Heavy work activities involve resistance. This includes activities with pushing, pulling, lifting, and carrying.

- Options and opportunities for heavy work should be provided throughout the day.
- Weighted or pressure equipment may be recommended by a therapist. This could include bear hug vests or weighted vests, lap pads, belts and blankets. The use of this equipment should be supervised by a therapist.

Activities That Proprioceptive Input:

- Squeezing a stress ball or 'the hand grip'.
- Wiping the blackboard.
- Washing the tables.
- Row, row, row your boat.
- Tug-of-war.
- Animal Walks.
- Jumping.
- Hopping.
- Running.
- Hugs.
- Using playground equipment.
- Play catch using a large ball or bean bags.
- Wall push-ups.
- Stairs.
- Pushing, pulling and holding the door open.
- Pouring water or sand from one container to another.
- Using play dough, clay or putty.

Disclaimer: All activities should be completed with adult supervision. It is okay if your child gravitates towards certain activities and avoids others. This is not individualized therefore some activities may not be appropriate for your child.