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NEURODEVELOPMENTAL TEAM











ACTIVITIES TO ASSIST IN THE DEVELOPMENT OF VESTIBULAR PROCESSING



The Vestibular System provides information relating to movement, locating the centre of gravity and changing head position. Processing problems relating to the vestibular sense can make it difficult to gauge the direction and speed of movement and to work out whether you are vertical or horizontal if not using vision. It can also affect balance as the child may be fearful of their ability to right themselves if tipped off balance. This can cause them to be fearful when carrying out new or unfamiliar activities and to become gravitationally insecure if their feet are off the ground. Children with under-aroused vestibular systems can crave movement to feed this system, which makes it difficult for them to sit still and attend in class.

The following are a list of activities that can be used in the home and school environment to develop vestibular processing. Some of these activities will be similar to those used to develop Proprioceptive input and can be used to work together to develop sensory integration. They aim of the activities is to provide the child with opportunities to change head position and to challenge their balance.

-  **Swinging:** Encourage the child to use swings whenever possible if he is willing to do so. Be aware that the child with vestibular processing difficulties may be anxious if their feet are off the ground. Start on swings that are very low to the ground. Tyre swings are excellent for providing circular as well as linear movement, circular movements will stimulate the vestibular system while linear movement can help to calm. Hammocks, suspended seats or swinging garden seats can also used to provide this input.
-  **Using a rocking chair;** this can also assist in the processing of information from the vestibular system and as a calming strategy.
-  **Using playground equipment;** roundabouts, spinning cups, seesaws, slides etc. Encourage the child to adopt different positions on the slide, sitting up lying down, on his tummy etc.
-  **Bouncing on a trampoline.** This is an excellent activity for the development of the Proprioceptive and Vestibular senses. The child should be encouraged to use a trampoline when ever possible. He should be closely supervised when using this equipment and if the child becomes over stimulated or feels nauseous after this activity it should be time limited.
-  **Bouncing on a therapy ball.** The child should be encouraged to adopt different positions on the ball, prone, supine and sitting. They should be encouraged to lie on their tummy and to bounce up and down and to crawl forward onto hands while feet remain on the ball. **It is important that this activity is supervised at all times**

-  **Using space hoppers;** again with close supervision.
-  **Rolling;** encourage any activities that involve rolling i.e. rolling on their sides on a mat, rolling down a hill, using a plastic barrel with hands and feet sticking out.
-  **Using a scooter board;** Encourage the child to adopt a prone position and to move the board in linear and circular movements.
-  **Riding trikes, bikes and scooters.**
-  **Walking on uneven surfaces;** the clatter bridge in adventure playgrounds, steps and mats in soft play areas, grass, stepping stones, large bubble wrap, air mattresses, water beds or lilos etc. All of the above will require the child to adjust his/her head and body position as they move.
-  **Using bouncy castles;** again with close supervision
-  **Tight rope walk;** encourage the child to walk along a wavy rope laid on the floor or a chalk line, forwards, backwards, heel to toe, large steps, small steps etc
-  **Crooked mile;** Place a rope on the floor and encourage the child to walk along the rope while crossing his legs i.e. right foot on left side of rope etc.
-  **Hands and feet;** make some left and right feet shapes using different colours for each foot or hand. Place them on the floor and encourage the child to step from one to the other. Use different more challenging patterns as he progresses.
-  Playing games such as Twister and hopscotch.

The above activities will also assist with the development of balance and the child should be able to transfer the skills in one area to another i.e. practicing steps in soft play area will transfer to managing stairs, riding a bike etc.