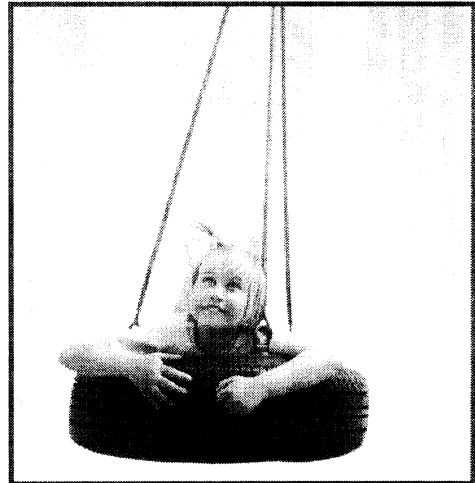


# Vestibular System

## What is it?

The vestibular system tells the brain about where the head is in space and how the body is moving through space. In simple terms it is responsible to provide information regarding movement and balance. It is located in the inner ear where it receives input from the other senses such as visual, tactile and auditory information. It receives and sends signals regarding rotational (circular) and linear (straight) movements.



## Why is the vestibular system important?

Children and adults use vestibular input to maintain upright posture, balance and move through space. It also provides information as to whether things around you are moving. We need vestibular input to tell us about the speed and direction of how and where the body is moving.

Problems with the vestibular system can result in balance deficits, excessive physical activity, avoidance of physical activity, motion sickness and changes in arousal level.

## How can you help a child develop the vestibular system?

In general, fast movements tend to be alerting and slow movements tend to calm the vestibular system. Vestibular input can be very powerful and can last for a long time after completing different activities (think of a time when you experienced motion sickness and how long it took to go away). Be respectful of a child's preferences regarding vestibular input. Some children may crave vestibular movement and some children avoid movement.

Here are some activities that provide vestibular input:

- log rolling on the floor or up/down a hill
- any position where the head is upside down
- swinging - swinging back and forth is linear input to the vestibular system and swinging in circles (ie tire swing) is rotational input to the vestibular system
- rocking in a rocking chair or on a rocking horse
- moving through space on a ride on toy ie tricycles, scooters and bicycles
- practice moving at different speeds (fast or slow) and in different directions (right, left, backwards, etc)
- spinning activities ie sit-n-spin, twirling in a circle or riding a merry go round
- gymnastic activities such as performing forward rolls (somersaults) or cart wheels
- use playground equipment like see saws, balance beams and slides
- basically any physical activity where a child is moving they are receiving vestibular input

Ask an occupational or physical therapist if you have questions about the most appropriate activities for a specific child.