

Gross Motor Skills

What are gross motor skills?

Gross motor (physical) skills are those which require whole body movement and which involve the large (core stabilising) muscles of the body to perform everyday functions, such as standing, walking, running, and sitting upright. It also includes eye-hand coordination skills such as ball skills (throwing, catching, kicking).

Why are gross motor skills important?

Gross motor skills are important to enable children to perform every day functions, such as walking, running, skipping, as well as playground skills (e.g. climbing) and sporting skills (e.g. catching, throwing and hitting a ball with a bat). These are crucial for everyday self care skills like dressing (where you need to be able to stand on one leg to put your leg into a pant leg without falling over).

Gross motor abilities also have an influence on other everyday functions. For example, a child's ability to maintain table top posture (upper body support) will affect their ability to participate in fine motor skills (e.g. writing, drawing and cutting) and sitting upright to attend to class instruction, which then impacts on their academic learning. Gross motor skills impact on your endurance to cope with a full day of school (siting upright at a desk, moving between classrooms, carrying your heavy school bag).

[Book an assessment for your child](#)

What are the building blocks necessary to develop gross motor skills?

- **Muscular strength:** The ability to exert force against resistance.
- **Muscular endurance:** The ability of a muscle or group of muscles to exert force repeatedly against resistance.
- **Motor (muscle) planning:** The ability to move the body with appropriate sequencing and timing to perform bodily movements with refined control.
- **Motor learning:** A change in motor (muscle) behaviour resulting from practice or past experience.
- **Postural control:** The ability to stabilize the trunk and neck to enable coordination of other limbs.
- **Sensory processing:** Accurate registration, interpretation and response to sensory stimulation in the environment and one's own body.
- **Body awareness:** Knowing body parts and understanding the body's movement in space in relation to other limbs and objects.
- **Balance:** The ability to maintain position whether that is static, dynamic (moving) or rotational.
- **Coordination:** Ability to integrate multiple movements into efficient movement.
- **Crossing Mid-line:** The ability to cross the imaginary line running from the child's nose to pelvis that divides the body into left and right sides.
- **Proprioception:** This is information that the brain receives from our muscles and joints to make us aware of body position and body movement.
- **Muscle Tone:** The resting muscle tension of a muscle which is the continuous and passive partial contraction of the muscles.

How can you tell if my child has problems with gross motor skills?

If a child has difficulties with gross motor skills they might:

- Be late in reaching developmental milestones (i.e. sit, crawl, walk, run and hop).
- Move stiffly and lacks fluid body movement or alternatively looks

awkward and appears clumsy.

- Avoid physical activity.
- Participate in physical activity for only short periods (have low endurance).
- Cannot maintain an upright posture when sitting on a mat or at a table top.
- Be unable to perform the same skills as their peers (e.g. catch, kick, hop and jump).
- Appear less skillful than their peers in sports.
- Be unable to follow multiple step instructions to complete a physical task (e.g. obstacle course).
- Be unable to plan and correctly sequence events or steps in a process (e.g. step forward before throwing).
- Fail to perform movements safely (e.g. climbing).
- Need to put in more effort than their peers to complete a task.
- Tire frequently with physical activity.
- Lose previously mastered skill if they do not keep practicing them.
- Be unable to 'generalise' or transfer a skill (use the same skill in a different setting/way) (e.g. can easily change between throwing a big/heavy ball to a light/small ball).

What other problems can occur when a child has gross motor difficulties?

If a child has gross motor difficulties, they might also have difficulties with:

- Drawing and pencil skills lacking in a skillful outcome.
- Writing and drawing for long periods of time.
- Activities of Daily Living (dressing independently, holding and using cutlery).
- Maintaining posture while sitting on the floor or at a table.
- Low energy levels.
- Seem tired or lethargic and take longer to respond to stimuli around them.
- Sensory processing (responding appropriately to the environment).
- Chewing and swallowing food.

- Dribbling inappropriately.
- Demonstrate poor articulation of sounds.
- Difficulties with manipulation of small toys and utensils.

What can be done to improve gross motor skills?

- **Improve attention** to task and alertness levels in readiness to respond quickly when they lose their balance and to respond to changes in the environment around them.
- **Increase Core strength:** Strengthen the 'core' (namely the large central muscles) of the body to provide greater body (especially trunk) stability.
- **Simplify specific physical skills** into one or two step components to teach at a time. Then gradually add together components until the skill is able to be performed in its entirety (e.g. skipping - start with a step, then a hop).
- **Gradually increase duration** and intensity of activity to increase endurance.
- **Improve sensory processing** to ensure appropriate attention and arousal to attempt the tasks, as well as ensuring the body is receiving and interpreting the correct messages from the muscles in terms of their position, their relationship to each other, the speed at which they move and how much force they are using.
- **Multi-sensory approach** (using as many of the 7 senses) to learn new skills will ensure a child has the best chance of learning appropriate strategies to respond to a physical demand or challenge.
- **Cognitive planning strategies** can be used to talk the child through tasks (e.g. 'Always point to where you are aiming').
- **Task analysis** to assist with chunking of information and backwards chaining (i.e. learning small parts of a task at a time).
- **Develop the underlying skills** necessary to support whole body (gross motor) skills, such as providing activities to support:
 - balance and coordination
 - strength and endurance
 - attention and alertness (sensory processing)
 - body awareness
 - movement planning (praxis)

What activities can help improve gross motor skills?

- **Hop Scotch** for hopping, or other games that encourage direct task/skill practice.
- **Simon Says** for body awareness and movement planning (praxis).
- **Wheelbarrow walking** races for upper body strength and postural or trunk control.
- **Unstable surfaces:** Walking/climbing over unstable surfaces (e.g. large pillows) as it requires a lot of effort and increases overall body strength.
- **Catching and balancing:** Standing with one foot on a ball while catching another ball (encourages balance while practicing catching and throwing).
- **Large balls:** Begin catching with a large ball/balloon and only after the skill is mastered, move to a smaller sized ball.
- **Obstacle courses:** to combine lots of gross motor skills together into one practice.
- **Playground** climbing and swinging.
- **Swimming**

Why should I seek therapy if I notice difficulties with gross motor skills in my child?

Therapeutic intervention to help a child with gross motor difficulties is important to:

- Increase your child's confidence in gross motor activities (e.g. playing on the playground, running, jumping).
- Enhance their self-esteem (so they aren't ostracized or picked last for sports teams due to their physical ability skill challenges).
- Increase sporting ability and confidence to engage in sports. Participating in sport enables a child to enrich their lives with positive people and develop strong friendships.
- Help your child develop the strength and endurance to manage the physical needs of a full school day.
- Provide your child with a strong base of support so that they are better

able to use their arms and hands for fine motor skills (such as manipulating small objects, such as pencils, scissors, keys, buttons and zips).

If left untreated what can difficulties with gross motor skills lead to?

When children have difficulties with gross motor skills, they might also have difficulties with:

- Managing a full school day due to poor strength and endurance.
- Participating in sporting activities.
- Performing age appropriate self care skills independently.
- Poor self esteem when they realise their skills do not match their peers.
- Bullying when others become more aware of a child's difficulties.
- Poor fine motor skills (e.g. writing, drawing and cutting) due to poor core stability, meaning they do not have a strong base to support the use of their arms and hands.

What type of therapy is recommended for gross motor skill difficulties?

If your child has difficulties with gross motor skills, it is recommended they consult an Occupational Therapist.

It may also be appropriate to consult a Physiotherapy for gross motor skills. It is important to acknowledge however that in many (but not all) paediatric cases, there is a large overlap in the skills addressed by Physiotherapy and Occupational Therapy.

Contact us today to make an initial enquiry or book an assessment for your child
on 1800 KID SENSE (1800 543 736)

