

Gross motor skill information for children with Down Syndrome

Activities to develop post-walking skills

Ideas and advice for parents and carers

General information

- These skills develop after your child is comfortable walking indoors and out. Your child will continue to progress so their walking becomes steadier, more confident and more mature looking.
- Give lots of opportunities to walk on different surfaces, climbing under, over and through obstacles and explore new activities both with your help and by themselves.
- Going to the park and helping your child experiment with how to climb up different ramps, steps and nets will be lots of fun and great for developing your child's coordination.



General advice

- Motivation is really important when learning new skills. Make activities fun and exciting and join in groups with other children. Demonstrate new activities or movements and give lots of praise and encouragement when your child tries themselves.
- You can try all of these activities whenever your child shows an interest in them. Do a variety of activities in short bursts to help prevent frustration or boredom.
- Children with Down Syndrome can be prone to being over-weight as their activity levels can be lower than their peers. Walking, swimming, cycling etc are all excellent ways of maintaining fitness.
- If you wish to speak to someone about suitable sports groups / swimming lessons etc, please contact the Sports Disability Officer at Leeds City Council on **0113 395 0159**.

Footwear

For most children, well-fitting, boot-style shoes from a good shoe shop will provide adequate support. Some children require more specialist supportive boots to help control their foot posture while they are learning to stand and balance. These boots are not needed indefinitely and are not prescribed routinely. Your paediatrician or physiotherapist can advise if you are unsure what to do.



It is also good to let your child walk in bare feet on a variety of surfaces as this helps to develop the muscles in the feet which in turn help to maintain a good foot posture.

Hearing and vision

Children with Down Syndrome can be more prone to hearing and vision problems than other children, which may contribute to more frequent falls, loss of balance and underestimating obstacles and distances.

Your paediatrician will advise on how frequently your child's hearing and vision needs to be checked.

Atlanto-axial instability

This is an instability in the joint between the top neck vertebra and the skull, caused by stretchier ligaments.

Theoretically this could make the joint more likely to dislocate than in people without Down Syndrome. Research shows that people with Down Syndrome probably suffer more sudden neck dislocation than the rest of the population (still very rare), but they **DO NOT** suffer more neck injuries doing higher-risk activities than other people doing the same activities. Parents and activity instructors commonly worry most about trampolining, horse-riding, gymnastics, diving and boxing.



Symptoms

- pain at a spot near the hard bump behind the ear
- prolonged stiff neck
- change in head posture
- changes in the way a person usually walks - more unsteady
- change in a person's ability to use their hands

If you notice any of these symptoms, have your child checked by a doctor. If your child does not have any of these symptoms, there is probably no reason for concern.

Please make sure that the people who are supporting your child with physical activities are aware of this potential problem and a suitable risk assessment has been carried out.



Walking on uneven surfaces / slopes

- Try walking on a variety of surfaces such as a mattress, wet and dry sand, pavements, gravel, bark chips and grass.
- Encourage splashing in puddles!!
- Walking up slopes is easier than walking down.
- Progress from shallow to steeper slopes.
- Your child may need to hold one hand initially, then progress to walking independently.



Throwing a ball

- Start with a beach ball or beanbag and progress to smaller, heavier balls.
- Underarm throws are easier, then progress to overarm.
- Throw to a person, then at a target such as skittles to help to develop hand-eye co-ordination.
- Gradually increase the distance thrown.



Kicking a ball

- Kicking is a good way to help your child develop their balance as well as learn to kick.
- Let your child choose which leg they prefer to kick with.
- Start with a large, light ball such as a beach ball.



Catching a ball

- Help your child to position their arms ready to catch – palms facing upwards and arms out.
- Start close to your child using a beach ball or a beanbag, or a balloon on a string.
- Progress to smaller, heavier balls and increase the distance between you.



Running

- Your child will learn to run in their own time.
- Help them by giving them lots of opportunity and exciting, motivating games such as "Ready, Steady, Go!" and races.



Negotiating kerbs

- Start by holding your child's hand then let go as they improve.
- Stand in front of your child when you let go of their hand so that they can step up or down the kerb towards you.
- Let your child lead with the foot they choose.

Walking on stairs

- Children often crawl up long before walking up.
- Going up is easier than coming down!
- Help your child hold the banister or wall with one hand and you hold their other hand so it is in front of them, below their shoulder height. Do not hold both their hands or let your child lean back on you.
- Progress to holding the banister and letting go of your hand - holding a small toy can be reassuring.

- Give lots of opportunities to practice.
- Children will do two feet to a step first, and some will always prefer to do this, but gradually encourage them to do one foot to a step.
- Practice the bottom few steps only going down and the top few going up so your child "finishes" the activity - Hurray!



Jumping

- Jumping can take a long time to master!
- Start on a mattress or mini trampoline and hold both hands.
- Practice on the floor, demonstrating how to bend the knees and throw the arms up for momentum.
- Move on to jumping off a low step and over objects on the floor, e.g. a stick or ribbon.

Standing on one leg

- Demonstrate standing on one leg, initially using a wall or table to balance. Discourage holding on to your hand and encourage hands out to the sides.
- Put your hands on your child's hips and gently guide their weight on to one leg. See if you can count to 10.
- Encourage kicking a ball, standing up to put on trousers, socks and shoes, stepping over larger obstacles, doing "giant steps", walking on stairs, standing with one foot on top of a ball.

Hopping

- Hopping comes after your child can jump and briefly stand on one leg.
- Some children find it very difficult, and some may never be able to hop.
- Demonstrate and practice the activity step by step, e.g. stand on one leg, bend the knee and push through the foot.

Sit 'n' ride toys and trikes

- Riding a trike is complicated, and will start to happen at around 2½ to 3 years old.
- For younger children, start with a sit 'n' ride toy, practicing getting on / off and propelling with feet on the floor. Children often push backwards before they can push forwards.
- Balance bikes are great!
- Show them how to put their feet on the pedals (sometimes, making a loop of sticky backed Velcro to help their feet stay in place will help).
- Try and get a trike with an adult push bar at the back so you can help them learn how the pedalling movement feels.
- Give verbal and physical prompts to push down with alternate legs.



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If you would like to talk to someone outside the service contact the **Patient Experience Team** on **0113 220 8585**, Monday to Friday 9.30am to 4.30pm or email lch.pet@nhs.net

We can make this information available in Braille, large print, audio or other languages on request.