

# Bilateral Coordination

Bilateral coordination (also known as bilateral integration) means using both sides of the body together to do an activity effectively.

Many daily self-care and play activities require bilateral coordination.

## What you might see

Children and young people who have difficulty with bilateral coordination may:

- Struggle using their hands in a coordinated manner to complete functional tasks such as dressing including tying shoelaces and doing up buttons/zips, finger feeding or using a knife and fork together, opening packets/ containers.
- Find it difficult to use their other hand to support or assist their dominant or preferred hand to complete tasks such as holding/adjusting paper when writing, drawing, cutting or holding a bowl when baking.
- Have difficulty mastering some skills like climbing stairs, catching or riding a bike or a scooter.
- Struggle to adjust their bodies and avoid crossing the midline (e.g. picking up toys with right hand positioned on the left side of the body), as a result, they may switch hands during a fine motor task or ignore one hand.

## Different types of bilateral coordination

### Symmetrical:

When both hands or feet are performing the same motion/movement together. This could be jumping, clapping, catching a ball or beanbag with two hands, or pulling up socks or pants.

### Reciprocal:

When both sides of the body are performing the same motion/movement in an alternating pattern. For example crawling / walking, skipping, riding a bike or scooter, threading and lacing activities.

### Asymmetrical:

When both sides of the body are working together but doing different movements. This involves one side supporting or assisting the other. For example: writing or cutting activities (where one hand stabilises or adjusts the paper), tying shoelaces or kicking a ball.



# Activities to help

## Gross motor (physical) activities

Gross motor skills involve the use of large muscles of the trunk, arms and legs, and whole body movements.

Encourage activities such as:

- Catching and throwing (starting with a large ball is easier)
- Jumping, star jumps (jumping jacks), stride jump (also known as spotty dog)
- Hopping
- Commando crawling: crawl keeping your tummy on the floor
- Animal walks such as:
  - Dog: Crawling on your hands and knees. You could try racing someone, see how fast you can get from a start to a finish line.
  - Bear: On your hands and feet with your bottom in the air, walk like a bear.
  - Crab: Sit on the floor with your hands flat by your sides, bend your knees, now lift your bottom keeping your tummy up towards the ceiling and your feet flat on the floor. Now try and lift a leg, you could try kicking a ball at a goal. If able, see if you can walk in this position (backwards is easier).
- Kicking activities (aiming at a goal, dribbling around an obstacle)
- Clapping
- Marching

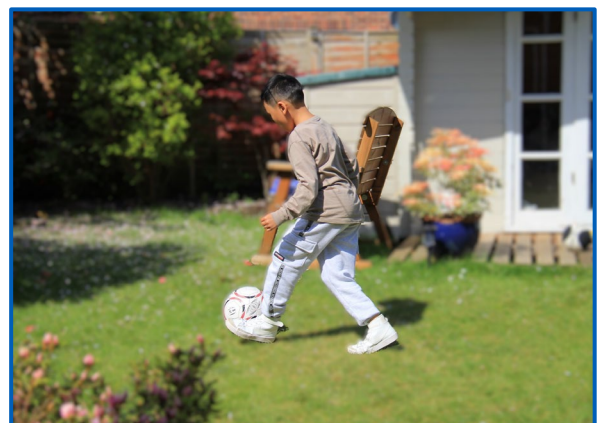


Bear walk



Crab walk

To make the above activities more fun and engaging, you can incorporate these as part of action songs, games such as 'Simon says' or obstacle courses.



## Other gross motor ideas that you could try:

- Playing games such as Hopscotch, Twister - this can be done within a small group.
- Practice the use of balance bikes, scooters, trikes and bikes.
- Using playground equipment or exploring soft play centres and local parks

## Fine motor (smaller muscle) activities

Fine motor skills involve the use of the smaller muscles of the hands for day-to-day tasks like drawing, writing, cutting, construction with Lego or Duplo, doing up buttons, and opening lunch boxes.

Encourage activities such as:

- Drawing activities – encourage holding the paper with one hand and drawing with the other.
- Using a ruler to draw lines or shapes – this task can be made easier when the ruler has a handle or raised bar to assist with stability.
- Art and craft activities such as cutting, sticking, ripping paper, collages, papier mache, and making cards or pottery.
- Construction toys, such as Duplo, Lego, Megablocks, K'nex or Sticklebricks.
- Playing with musical instruments that use both hands, such as cymbals, drums, or recorder.
- Cooking or baking - encourage stirring with one hand whilst holding the bowl with the other, rolling, kneading, cutting out cookie shapes or icing cakes.
- Helping in the kitchen with everyday tasks like pouring glass of juice/milk, and buttering bread.
- Threading beads or lacing activities.



## Fine motor activities for younger children

For younger children, try messy play and water play activities like:

- Squeezing bottles or sponges with two hands.
- Encouraging them to clap to burst bubbles.
- Pouring water or dried foods (e.g. dried beans, pasta) from one container to another.
- Playdoh - encourage rolling, pinching, and stretching with both hands.
- Practice dressing skills by changing dolls' clothes.



## Other strategies/advice

**Some children and young people may find some tasks too challenging or too easy. Tasks must be adjusted to make sure they succeed which will help to increase their confidence.**

Breakdown the instructions into small steps and make the task more simple, for example:

- When doing star jumps - practice just the legs on their own, then just the arms and then combine the two movements.
- For ball games - reduce the distance, increase the target size or increase the size of the ball.
- For cutting tasks – use adaptive scissors, firmer paper, and cut out larger objects with less turns.

If they struggle with multi-step instructions, model the activity yourself so they can copy the movements. Practice and repetition are helpful.

Use verbal prompts to them to use both hands to finish tasks. For example, reminding them to hold paper steady with their non-dominant hand when writing, adjusting the paper when cutting with scissors, and using both hands to pull socks or trousers up and down.

## Further resources

You may find the following pages on our website helpful:

[Gross motor skills information](#)

[Fine motor skills information](#)

