



How to support children with Developmental Coordination Disorder

Gross Motor Skills

What are the common gross motor problems in children with Developmental Coordination Disorder (DCD)?

Children with DCD may have weak muscle strength, low exercise endurance, poor balance, low agility or uncoordinated movement patterns (such as bilateral, eye-hand or eye-foot incoordination).

What are the challenges to their daily activities if children have poor muscle strength and endurance? What exercises and activities can help them?

They may have improper sitting and standing postures, leaning onto support with slumped back, easy fatigue, low exercise endurance and poor force control. They are prone to injury after prolonged physical activities.



Recommendations:

- Strengthen the postural / core muscles :
 - ✧ sit-ups : lie down on your back with knees bent and feet on floor, curl body up to touch fingers on knees, or with arms crossed
 - ✧ prone extension: lie on your tummy, then lift arms up in the front and legs up at the back
- Strengthen the arm and leg muscles:
 - ✧ push up at wall
 - ✧ bunny hop
 - ✧ wall sit

Children are recommended to participate in extra-curricular activities such as swimming, martial arts, tai chi and taekwondo.

What are the challenges to their daily activities if children have poor balance? What exercises and activities can help them?

They may have slow balance reaction, frequent fall, bumping into others or objects easily, landing unsteadily from jumping, clumsy in running and climbing stairs, difficult to stand on one leg, unable to change pants / trousers in standing position (need to lean onto support for balance), prone to trip over obstacles or may even fall from chairs while sitting.



Recommendations:

- The following exercises would help improving balance:
 - ✧ stepping over obstacles
 - ✧ walking on various terrains of land, such as lawn and beach
 - ✧ walking along a straight narrow line (walk forward, then progress to backward)
 - ✧ single leg standing, progress by placing beanbag on lap or over instep of the non-standing leg
 - ✧ hop on one leg and stop
 - ✧ hopscotch
- Parents may need to remind children to pay extra attention when doing activities in challenging or hazardous environment to avoid losing balance and getting hurt.
- Exercise such as gymnastics, trampoline, roller skating and dancing are also recommended.

What are the challenges to their daily activities if children have poor agility? What exercises and activities can help them?

They may be slow to react, fail to stop in time while running (or even when walking), prone to bump into objects and get bruised over limbs frequently. They need more time and space to change direction or turn around during activities. They look clumsy and slow in general, and need additional prompting to start working.

Recommendations:

- Activities that require quick change in directions, speed or posture, such as “Red Light Green Light”, could help to improve reactions and agility.
- Shuttle run and obstacle course training are also recommended.



What are the challenges to their daily activities if children have poor body or bilateral coordination? What exercises and activities can help them?

They may walk and run with an awkward posture, have weak coordinated movement for activities such as morning exercise, climbing, skipping rope, swimming, etc.

Recommendations:

- Jumping sideways to alternate sides over a line on the floor (five to ten times); hop scotch.
- Complicated or difficult task should be broken down into simpler and easier steps for children to learn and practice step by step.
- Exercises such as swimming, martial arts, taekwondo, gymnastic, dancing, rope skipping and climbing activities are also recommended.

What are the challenges to their daily activities if children have poor eye-hand or eye-foot coordination? What exercises and activities can help them?

They may be clumsy at playing ball games, fail to throw and catch balls accurately and consistently, unable to serve or dribble balls, prone to step onto the ball or miss the ball when trying to kick.

Recommendations:

- Practice catching the ball bounced from floor, striking a balloon with a racquet, or kicking a rolled up paper “ball” into a goal.
- Try simple throw and catch tasks before proceeding to more complicated ones; use soft and large ball initially when teaching them to catch, and toss the ball to them slowly at close distance. As they improve, use smaller balls at further distance and faster speed can be considered.



- Encourage them to help doing household chores such as sweeping the floor, cleaning up and tidying up tables and chairs, etc.
- Extra-curricular activities such as soccer, mini tennis, table tennis and badminton are also recommended. Children should be adequately prepared before participating in community or formal sports training, for instance, they can practice the basic movements at home.

What precautions should be taken when children participate in exercises and activities?

- Parents or caretakers have to accompany them so as to give guidance on how to do the exercises.

Safe environment is essential to avoid accidents or dangers.

What to consider when choosing the right sport activities for children?

- Taken into consideration of children's interest and preference.
- To avoid frustration that may be caused by peer comparison. Parents should choose to join the younger group. For children who are 6 years old, it is better to choose the class for 4 to 6 years old than the group for 6 to 8 years old.
- To communicate with the coach about children's difficulties before starting the course or lesson, so that the coach understands children's needs and makes reasonable demand to foster their sense of success and interest in participating.
- Praise for children's effort and their improvement, not to make comparisons with other children.

Please feel free to consult physiotherapist for advice if needed.



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