CONDITION

Developmental coordination disorder

Developmental coordination disorder affects how a person learns and carries out coordinated movements.

WHAT IT IS
Neurodevelopmental condition affecting movement learning and coordination

BODY SYSTEM
Nervous system and movement

MAIN SYMPTOMS
Clumsiness, slow motor learning, poor balance, difficult handwriting

WHAT CAUSES IT
Brain development differences; exact cause unknown

HOW IT IS DIAGNOSED
Clinical criteria, motor testing, and exclusion of other causes

MAIN TREATMENT
Occupational or physical therapy and practical supports

CAN IT BE CURED?
No, but skills and function can improve

IS IT AN EMERGENCY?
No, sudden coordination loss suggests another problem

LONG-TERM OUTLOOK
Often persists, with function improving through support and practice

Overview

Developmental coordination disorder, or DCD, is a condition that affects the development of movement and coordination. Everyday physical tasks take more effort and practice than expected for a person's age.

DCD may affect large movements, such as running, balancing, or catching a ball. It can also affect small, precise movements needed for handwriting, using cutlery, fastening clothes, or handling tools.

The difficulties begin during childhood and interfere with daily life, education, work, leisure, or independence. They are not simply occasional clumsiness. They also cannot be better explained by another condition affecting movement, vision, or overall development.

DCD does not indicate low intelligence. A person may understand exactly what to do but have difficulty planning, timing, or carrying out the movement smoothly. Repeated struggles can affect confidence and participation, so recognition and practical support matter.

Symptoms

DCD looks different from person to person. Some people mainly have difficulty with handwriting and other fine movements. Others have broader problems with balance, sport, dressing, or learning new physical tasks.

Possible signs include:

Young children may be slower to learn self-care skills or find construction toys and drawing unusually difficult. School-aged children may struggle to copy from a board, organize work on a page, change clothes for physical education, or complete written work within the available time.

Teenagers and adults may notice problems with cooking, driving, typing, exercise, household tasks, or jobs requiring quick and precise movements. They may appear awkward when learning a new activity, even if they manage familiar routines well.

Symptoms can seem worse when a person is tired, rushed, stressed, or managing several instructions at once.

- Frequently dropping, spilling, bumping into, or knocking over things
- Difficulty running, jumping, balancing, catching, throwing, or kicking
- Slow or tiring handwriting, with inconsistent letter size or spacing
- Trouble using scissors, cutlery, buttons, zips, shoelaces, or tools
- Taking longer to learn sequences such as swimming or riding a bicycle
- Needing more thought and effort to complete familiar physical tasks
- Avoiding playground games, sport, crafts, or other movement-based activities

Causes and risk factors

The exact cause of DCD is unknown. Research suggests that differences in how the developing brain processes information, plans movement, and adjusts actions are involved. DCD is not caused by laziness, lack of effort, poor parenting, or too little practice.

Genes may contribute because motor coordination difficulties can occur in families. Being born

very early or at a very low birth weight is also associated with a greater chance of developing DCD. These factors do not mean that a person will definitely have the condition.

DCD often occurs alongside other developmental conditions, including attention-deficit hyperactivity disorder, autism, language disorders, and specific learning disorders such as dyslexia. Anxiety and low mood may develop after years of frustration or exclusion. These conditions do not cause DCD, but they can affect assessment and support needs.

Diagnosis

There is no blood test, scan, or single movement test that confirms DCD. Diagnosis is based on developmental history, the effect on everyday life, standardized motor testing, and an examination to rule out other explanations.

An assessment may involve a doctor, occupational therapist, physiotherapist, psychologist, or other developmental specialist. Information from parents, teachers, or the person being assessed can help show how coordination affects different settings.

A diagnosis generally requires evidence that:

Standardized assessments compare skills such as balance, aiming, catching, and hand control with those of people of a similar age. The Movement Assessment Battery for Children is one commonly used test. Questionnaires can help identify everyday difficulties, but they do not establish the diagnosis by themselves.

The assessment may also include vision checks, a neurological examination, and review of learning, attention, communication, and emotional well-being. Brain imaging is not routinely used for typical DCD, but it may be considered when symptoms suggest another cause.

Some young children are monitored over time because motor abilities can change quickly during the preschool years.

- Movement skills are clearly below what is expected for age and opportunity to learn
- The difficulties interfere with daily activities, school, work, or leisure
- Symptoms began during the early developmental years
- Another medical, neurological, visual, or developmental condition does not better explain them

Treatment and management

There is no medicine or procedure that removes DCD. Management focuses on helping the person complete meaningful tasks, build skills, participate safely, and reduce unnecessary frustration.

Occupational therapy may address handwriting, dressing, meal preparation, schoolwork, tool use, or other daily activities. Physiotherapy may help with balance, strength, movement control, fitness, or participation in physical activity.

Therapy is often most useful when it is task-focused. This means practising a specific activity, breaking it into manageable steps, and finding strategies that work in real situations. Simply repeating difficult movements without guidance may be discouraging.

Helpful adjustments can include:

Schools may provide learning accommodations or an individual support plan, depending on local systems and the person's needs. Support should allow a student to show what they know without removing every chance to develop motor skills.

No medication specifically treats DCD. Medicines may sometimes be used for a separate condition, such as ADHD, after an appropriate assessment.

- Extra time for written work, dressing, or practical tasks
- Keyboarding or speech-to-text when handwriting limits learning
- Clear, step-by-step instructions and demonstrations
- Suitable seating, writing tools, clothing fasteners, or equipment
- Predictable practice in a calm setting
- Physical activities chosen for enjoyment and gradual skill-building

Complications

DCD does not usually cause physical deterioration. However, ongoing coordination difficulties can have wider effects if tasks remain inaccessible or support is not available.

Repeated failure or criticism may contribute to low confidence, anxiety, low mood, or avoidance of social activities. Difficulties keeping up in games or sport can affect friendships and a sense of belonging.

Some people become less physically active because movement feels tiring, embarrassing, or unsafe. Over time, this may contribute to lower fitness. Handwriting and practical difficulties can also interfere with education, employment, and independent living.

These outcomes are not inevitable. Supportive teaching, reasonable adjustments, suitable

activities, and attention to emotional health can reduce their impact.

Prevention

DCD cannot currently be prevented. Its causes involve early development and are not the result of anything a child or parent did wrong.

Early recognition does not prevent the condition, but it may prevent avoidable problems such as repeated criticism, loss of confidence, or exclusion from learning and physical activity. Matching tasks and expectations to the person's needs can make everyday life more manageable.

Living with it and what to expect

DCD often continues into adolescence and adulthood, although its effects may change. A child who struggles with playground games may later be more affected by driving, cooking, workplace tools, or managing several practical tasks at once.

Skills can improve with practice, therapy, maturity, and effective strategies. Progress may be uneven, and newly introduced tasks may remain difficult. Familiar routines often become easier, while activities requiring speed, accuracy, or rapid adjustment may continue to take extra effort.

Many people develop ways to work around their difficulties. They may use technology, organize tasks in advance, choose clothing with easier fasteners, or select exercise that feels manageable. These are useful adaptations, not signs of failure.

Most people with DCD attend school, work, form relationships, and live independently. The amount of support needed differs. Coexisting attention, learning, communication, or mental health conditions may have as much effect on long-term life as coordination itself.

Regular follow-up is most useful when needs change, such as starting school, moving to secondary education, learning to drive, entering work, or taking on more independent living tasks.

When to get medical help

Arrange a routine assessment if coordination problems are persistent, clearly different from those of similar-aged peers, or interfering with self-care, education, work, play, or confidence.

For a child, concerns can be discussed with a primary care clinician, school health service, teacher, or developmental professional.

Seek a prompt medical review if there is a noticeable loss of skills that were previously established, worsening weakness, repeated unexplained falls, new vision problems, persistent pain, or a major change in walking. These are not typical features of stable DCD and may have another cause.

Get emergency help for sudden loss of coordination, especially with facial drooping, one-sided weakness, difficulty speaking, severe headache, confusion, fainting, or a seizure. Sudden symptoms after a serious head or neck injury also need emergency assessment.

Common questions

Is DCD just another name for being clumsy?

No. Everyone is occasionally clumsy. DCD involves persistent movement difficulties that are below the expected level for age and have a meaningful effect on daily life, learning, work, or participation.

Will my child grow out of DCD?

DCD often continues into adulthood, but this does not mean abilities stay unchanged. Skills, confidence, and independence can improve with maturity, targeted practice, suitable adjustments, and support.

Does DCD affect intelligence?

DCD does not itself reduce intelligence. A person can understand a task well but struggle to carry out the required movements. Slow handwriting or practical work may hide what a student knows.

Is DCD the same as autism or ADHD?

No. They are separate conditions, although they can occur together. A full assessment helps identify which difficulties come from coordination, attention, communication, learning, or another area.

Can adults be diagnosed with DCD?

Yes. Diagnosis may be considered when significant coordination problems began in childhood and still affect adult life. Childhood reports, school records, family recollections, current functional assessment, and exclusion of other causes may all be relevant.

Can someone with DCD take part in sport?

Yes. Enjoyable, well-matched activities can support fitness and confidence. Individual activities

or smaller, less competitive groups may suit some people, while others prefer team sports. Instruction that breaks skills into steps can help.

Sources

- American Psychiatric Association. Diagnostic and Statistical Manual of Mental Disorders . 5th edition, text revision. American Psychiatric Association Publishing; 2022.
- Blank R, Barnett AL, Cairney J, et al. International clinical practice recommendations on the definition, diagnosis, assessment, intervention, and psychosocial aspects of developmental coordination disorder. Developmental Medicine & Child Neurology . 2019;61(3):242-285.
- Ip A, Mickelson ECR, Zwicker JG. Assessment, diagnosis, and management of developmental coordination disorder. Paediatrics & Child Health . 2021;26(6):375-378.
- Miyahara M, Hillier SL, Pridham L, Nakagawa S. Task-oriented interventions for children with developmental co-ordination disorder. Cochrane Database of Systematic Reviews . 2017;7:CD010914.
- NHS. Developmental co-ordination disorder in children . NHS health information.