

**AI**

I confirm I used Generative AI to 'find current sources (Journal articles) between 2015 and 2025 regarding DCD'. I can confirm I used Generative AI to 'summarise some articles to summarise the information'.

I confirm that I have not presented any AI generated materials as my own work. I confirm I have copies of my drafts, notes and other resources I used, which I may be asked to provide in evidence.

## **Dyspraxia / Developmental Coordination Disorder (DCD)**

### **Introduction**

Today I am going to talk to you about Dyspraxia. My name is Steph and the reason for my interest in Dyspraxia is personal. I was diagnosed at the age of 7 with Dyslexia.

The 'clumsy child', 'developmental dyspraxia' or 'motor learning difficulties' are names for Dyspraxia, which in 1994 found an official name of Developmental Coordination Disorder (hereafter, DCD) (Meachon, 2017; Kirby, 2020). DCD is a lifelong neurodevelopmental disorder. Impairing fine and gross motor skills (Abdulla, 2016; Kirby, 2020). Heath (2025) further states boys are four times more likely to have DCD than girls. Furthermore, the Welsh Government (2021) identifies DCD as an Additional Learning Need (hereafter, ALN), suggesting some children may require specific programmes to aid their progress and learning. However, there is no cure for DCD, and physical coordination remains below average, although coping strategies can help manage challenges (NHS, 2023c).

### **Identifying and diagnosing**

DCD is usually diagnosed between the ages of 6 and 12, with some children being diagnosed earlier (Meachon, 2017). However, according to Movement Matters UK (2023), NHS (2023b) and Dyspraxia Uk (no date) state obtaining a diagnosis before 5 is rare. Suggesting up to the age of 5, their motor skills are still developing and therefore it would be difficult to identify developmental delay (Biotteau *et al.* 2019; Neurotastic, 2024). In addition, DCD signs may become apparent when the child becomes older, going to primary school, with noticeable difficulties with movement and co-ordination problems, such as running, hopping etc (Kirby, 2020; NHS, 2023a; Movement Matters Uk, 2023).

According to Hunt *et al.*'s. (2020) research, parents and practitioners recognise their responsibilities to identify difficulties and are to seek professional expertise supporting identification. In line with Article 18 of the Children's Rights, states parents need to take responsibility and act on what is best for their child (UNICEF, 2017). However, only, 43% of parents usually seek professional advice from teachers or GPs regarding their child's development (Soriano, Hill and Crane, 2015). With 93% of parents seeking a private referral for professional guidance to identify DCD and to obtain a diagnosis (Soriano, Hill and Crane, 2015).

DSM-5 or Movement ABC are formal diagnostic criterion, used by psychologist to identify motor and coordination skills, that are substantially below the developmental milestones to the child's chronological age and exposure to activities and learning opportunities as well as how it interferes with daily living (Kirby 2020; Ip, Mickelson and Zwicker, 2021). However, Kirby (2020) emphasises the importance the history of the child impacting the diagnosing and identifying of DCD. Taking note of developmental milestones at an early age, such late walker, or some who did not crawl.

Steenbergen *et al.* (2024) raise the difficulty of obtaining a diagnosis of DCD stating it can be a long and frustrating process. This could be due to the lack of knowledge and understanding of DCD. Hunt *et al.*'s (2020) research states stakeholders show limited understanding or familiarity with characteristics of DCD as they can co-occur with Dyslexia and ADHD. However, Subara-Zukic *et al.* (2022) suggests DSM-5 is rigid stating it may exclude individuals with milder or atypical presentations of DCD.

Moreover, Holland and Pell (2018) highlights parents of ALN children found the difficult process to gain a diagnosis, securing support and managing feelings of guilt and emotional strain stressful. Additionally, parents experience frustration from the lack of understanding and awareness of DCD along with teachers and practitioners (Klein *et al.* 2023).

## Barriers

With co-ordination difficulty in physical activities as a barrier for children with DCD (NHS, 2023c). Looking at DCD through the medical model of disability which identifies it as an impairment (weakened, damaged, reduced value) and immaturity (not fully grown) (Abdullah, 2016).

Imagine you are in a PE lesson, the activity is to catch or kick a ball. Now imagine doing the activity with reduced postural control, muscle tone, and eye movements as well as poor planning (Abdullah, 2016). DCD impairs motor coordination, causing slow and inaccurate movements and it also commonly negatively affects planning, organisation and time management (Abdulla, 2017; Kirby, 2020; Castellucci and Singla, 2024; Heath, 2025). Consequentially from the clumsy stigma, impacts negatively on mental health, and many children with DCD experience bullying, victimisation and exclusion from some competitive sports games within school settings (O'Dea *et al.* 2021). Moreover, children with DCD tend to lack confidence in their ability to participate successfully, often tend to self-exclude in activities that could expose their difficulties (O'Dea *et al.* 2021).

Leading onto the second barrier, the lack the awareness of DCD within schools and with healthcare practitioners (Steenbergen *et al.* 2024) There are many misconceptions of DCD such as appearing as awkward or uncoordinated, or just clumsy rather than experiencing a neurological condition (Del Pozzo *et al.*, 2021). Despite DCD being a common childhood developmental disorder, DCD remains under recognised, placing it within a hidden group in society, reinforcing the need for training (Meachon, Melching and Alpers, 2023; Steenbergen *et al.*, 2024). Suggesting, children are not being supporting due to lack of awareness and knowledge (Harrowell *et al.* 2018). This implies the lack of importance and information shared through the social model of disability, which places responsibility on governments, organisations, businesses and individuals to remove barriers and promote equality (Disability Rights UK, no date).

Without proper awareness and training among educators and healthcare professionals, children with DCD will continue to be undiagnosed or unsupported, continuing to face bullying and victimization, reinforcing the urgent need for societal change (Meachon, Melching and Alpers, 2023; Steenbergen *et al.*, 2024). Addressing these challenges requires a holistic approach, ensuring that children with DCD receive the recognition, resources and support necessary to navigate daily life successfully (Chalise, 2024). As, Abdulla (2016) points out, can contribute to poor mental health, reduced physical fitness and low self-esteem.

## **Strategy**

I could discuss strategies for developing fine and gross motor skills, modifying the classroom environment to support writing outcomes, or simplifying activities to enhance accessibility (Abdulla, 2016). However, O'Dea *et al.* (2021) emphasise that the focus should also be on fostering friendships and promoting social inclusion.

Abdulla (2016) identifies the importance of encouraging socially based activities, instead of team sports. Furthermore, Ip, Mickelson and Zwicker (2021) place focus on the individual, and suggest incorporate non-competitive sports; such as, Tae-kwon-doe or swimming. While these interventions are valuable and having DCD myself, my experiences of achieving, without the visual of others doing it better or easier, it resonated with O'Dea *et al.* (2021) research, of individuals with DCD identifying common sayings; 'So What? I drop things, as well as 'It is harder than it should be' (about navigating daily activities) and 'Fitting in'.

However, many children have adapted the 'just do it' attitude, enabling individuals to find their own strategies for navigating daily life, even activities not mastered (O'Dea *et al.* 2021). Moreover, supporting children with DCD, by breaking the activity down into small bits, as well as making practising a new skill beforehand fun (Abdulla, 2016).

Therefore, enabling the child to feel they 'Fitt in' although the motor and academic development needs supporting, feeling the sense of belonging is crucial (Dunford, Prunty and Wilson, 2024)

## **In conclusion**

DCD is a lifelong condition that affects motor coordination and organisation. Often leading to misconceptions and overlooked support needs (Kirby, 2020). However, being recognised as an ALN, awareness remains limited among educators and healthcare professionals, contributing to delayed diagnoses and insufficient interventions (Meachon, Melching and Alpers (2023).

Children with DCD often face barriers in daily life, including academic, social and emotional (O'Dea *et al.* 2021). Addressing these challenges requires a holistic approach, ensuring that individuals with DCD receive the support, recognition and opportunities and are fully included (Chalise, 2024).

Encouraging friendships, inclusive environments and adaptive strategies are crucial in improving self-esteem, mental health and physical well-being (O'Dea *et al.* 2021). With greater awareness and understanding, society can empower individuals with DCD to navigate life with confidence and resilience.

Thank you

## **Question 1**

### **Are there any other symptoms of DCD that can affect children and their development?**

Additional symptoms of DCD such as, difficulty concentrating, poor short-term memory and following more than one step instructions (Meachon, 2017, NHS, 2023a). However, Meachon (2017) adds that DCD can cause difficulties with speech and language, for example, controlling own pitch, tone and volume, as well as, organising speech and ordering content.

Moreover, some individuals diagnosed with DCD, may experience a heightened sensitivity to light, touch and smells, and possibly have reduced awareness of their body in space, therefore, bumping or falling over (Meachon, 2017). Additionally, Colly, (2006) and Dyspraxia Foundation (2017, cited in Meachon, 2017) suggest individuals with DCD find complex coping and masking strategies, which manifests as creative and persevering behaviours and appearances.

## **Question 2**

### **What are the causes of DCD?**

DCD arises from a disruption in the transmission of signals between the brain and body, affecting motor coordination, the exact cause remains unclear (NHS 2023b; Karabak *et al.* 2024; Heath, 2025). However, NHS (2023b) do identify some factors that can increase the likelihood of DCD being identified, such as, being premature, before 37 weeks of pregnancy, a low birth weight, family history of DCD.

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