Understanding the Strengths and Difficulties of Dyspraxia/DCD: A guide for parents

Edinburgh Psychoeducation Intervention for Children and Young People® (EPIC)
There are two types of EPIC booklets:
1) The EPIC Strengths and Difficulties booklets.
2) The EPIC Strategy booklet.

This is the EPIC Strengths and Difficulties booklet for Dyspraxia/DCD

If you would like to read more about strategies for developing skills and managing difficulties see the EPIC Strategy booklet.
Who is this booklet relevant for?

We hope this guide will help you to further understand children with DCD and give you some more ideas of how to support them.

While this booklet was made with children with DCD in mind, the difficulties described are often relevant to:

1. A child struggling with one of the difficulties described.

2. A child with another diagnosis such as autism, ADHD, dyslexia, dyscalculia or children born prematurely.

3. The ideas described in this booklet are mainly applicable to children up to the end of primary school but are relevant for adolescents as well.

4. Understanding the concepts in this booklet can benefit the whole family by maintaining a positive environment and supporting every child with their learning and well-being.
Developmental Coordination Disorder (DCD), also known as Dyspraxia, is common. We will refer to the disorder as DCD from here on in to refer to both. Around 1 in 20 children has DCD.

- Everyone with DCD is different but generally it impacts fine motor skills (e.g. holding a pencil) and/or gross motor skills (e.g. riding a bicycle). It can also impact the ability to organise yourself, remember information and control actions.

- Children with DCD often show sensory processing differences. They may be sensory avoidant e.g. leaving a room when noises are too loud for them. Or they may be sensory seeking and seek more sensory stimulation e.g. using a fidget spinner. A lot of children have a combination of both.

- Children with DCD often show some co-occurring ADHD symptoms and can also be hyperactive and impulsive. For children who are hyperactive it is often the first thing that we see because the behaviour is so visible. It is important to look past this external behaviour and focus on the thinking difficulties.
Children with DCD can have a range of motor skill difficulties.

- Balance
- Coordination
- Motor planning

Children with DCD often have other difficulties additional to their motor skill difficulties. See the next page for examples.

Most people are diagnosed in childhood and difficulties persist into adulthood.

But there are things that can help children manage their difficulties.
All children with DCD are different, but they may have a range of difficulties beyond their motor skill difficulties.

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Children with DCD can also have lots of different strengths. It is important to think of a child with DCD in relation to areas of strengths as well as their areas of difficulty.

**Fun to be around**  
**Strong sense of justice**

**Enthusiastic**  
**Motivating others**

**Creative**  
**Making quick decisions**

**Taking risks**  
**Sociable**

**Thinking outside the box**  
**Kind and generous**
Understanding DCD

Thinking and Learning

Some of the difficulties listed on page 6 are caused by underlying processes in the brain called “executive functions”.

Many children with DCD show executive function difficulties but may differ from one another in areas they have difficulty with.

For example, some may have a difficulty controlling their attention while others are impacted by difficulties in memory or planning. It is important to identify which areas are underlying the child’s difficulty with learning.

Executive functions:

- Inhibition
- Attention
- Working memory
- Planning
- Self-regulation
- Emotional well-being
Inhibition

Difficulty with avoiding distractors and generally controlling responses are sometime features seen in children with DCD.

- Inhibition difficulties can make it hard for children to:
  - Wait their turn
  - Make the right choices

- Becoming distracted can make it hard for children to:
  - Start, stay on, and finish a task
  - Focus on relevant information
  - Stop and think before they speak

See pages 10-11, 36, and 39 in the EPIC Strategy booklet for strategies to help with inhibition control.
Attention difficulties are a common feature of DCD.

Attention difficulties can make it hard for children to…

- Stay focused
- Start a task
- Sit still for long periods of time

Becoming distracted can make it hard for children to…

- Stay on a task
- Complete a task

Important Note:
Not all children with DCD have an ‘attention’ problem but other executive function difficulties can look like poor attention e.g. sometimes a child seems like they are not paying attention but actually the issue is working memory.

See pages 12-16, and 36 in the EPIC Strategy booklet for strategies to help with attention.
Working memory

What does poor working memory look like?
Often we have to hold multiple items in our mind at a time. For some children there is limited space to hold all of the information. They may only remember the first or last part of an instruction if it has multiple parts.

Information may disappear more quickly from memory unless rehearsed or aided with another strategy. Many have a difficulty organising information in memory or if asked to reverse the order of information in memory such as in some maths problems e.g. reversing a multiplication sum to divide it.

These difficulties can make it hard to:
- Follow instructions
- Complete sums in the mind
- Follow a story

Having poor working memory can therefore impact on lots of different aspects of life.

It is particularly important strategies are in place to support children with poor working memory when doing homework or other learning activities.

See pages 25-32, 37, and 40 in the EPIC Strategy booklet for strategies to help with working memory and long-term memory.
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Planning

The ability to plan ahead is important for lots of different actions and activities.

Planning is important for:

- Starting and completing a task
- Time management
- Setting goals

Children who are impulsive often also find it hard to stop and think about what they are going to do or say in advance.

This can make it difficult to get started on a task, or finish a task because they haven’t thought about the steps they need to take to achieve this. Planning is important at the end of the task not just the beginning.

Children with DCD are often less likely to check their work and reminding them to plan can help it become more routine.

See pages 20-24, 36 and 38 in the EPIC Strategy booklet for strategies to help with planning.
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Remembering to use a strategy

Using a strategy to help complete a task is usually an automatic behaviour for children. Children with DCD often do not think of using a strategy.

**Strategy use is important for:**

- **Accuracy and speed in completing a task**
- **Remembering all relevant information or steps**

In our strategy booklet we outline a wide range of internal thinking strategies e.g. rehearsal and using mental imagery. We also detail useful external resources e.g. mind-maps and diaries that can be used to support learning.

Regularly reminding the child at the start of a task to use a strategy will help them to use strategies more routinely. They may also need help practising how to identify the right strategy for different task demands.

See pages 41 of the EPIC Strategy booklet for an example of using dialogue to explain using strategies to a child.
Self-regulation is about being able to **recognise and monitor** task demands and to respond appropriately and flexibly.

**Self-regulation requires:**

- **Stopping and Thinking**
- **Planning your Response**
- **Monitoring of Progress**

If a child cannot alter their responses to the demands of a task they may perform it too quickly, affecting their accuracy. Alternatively, they may complete the task more slowly without any added benefit and negatively impact time management.

If your child also has ADHD they may take stimulant medication which improves self-regulation. There are also strategies that can be used to encourage the child to regulate to task demands and to their environment.

See our website for more information on medication.

See pages 17-19 in the **EPIC Strategy** booklet for strategies to help with self-regulation.
Emotional well-being

Emotional-regulation involves being able to **recognise and monitor** what you are **thinking**, **feeling** or how you are **acting**. Children with DCD often don’t ‘Stop and Think’ about how they are feeling before responding.

To facilitate good emotional regulation the child should be encouraged to:

- Be aware of their reactions to the environment
- Monitor their responses
- Self-reflect

If a child cannot recognise what they are thinking or feeling, this can impact on how they behave. This can lead to **frustration** as they may not fully understand why they acted the way that they did.

A child may benefit from sensory or movement breaks to give them **time to reflect** on how they are feeling.

See pages 33-34 and 42-43 in the **EPIC Strategy** booklet for strategies to help with emotional regulation and well-being.
There are many strategies that can be used that may help children with DCD.

They may work for some children but not others so it is important to first understand what the child’s individual difficulties are.

You can use the previous pages to identify what difficulties your child might have and then try some of the strategies in the EPIC Strategy booklet that target those skills.
Understanding DCD

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A guide for parents

EPIC is co-produced with children, young people, parents, clinicians, and educational professionals.

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We hope this guide has been useful in giving you some ideas of how to help a child with their strengths and difficulties.

We very much welcome feedback on our resources: please contact Dr. Sinead Rhodes at sinead.rhodes@ed.ac.uk with any comments.

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