

Dyscalculia

Information for parents and carers



What is dyscalculia?

It is estimated that dyscalculia affects 4 – 6% of the population. Dyscalculia exists in all cultures and across the range of abilities and backgrounds. Dyscalculia is a learning ‘difference’, which means that the brain can approach things in a different way to other people, it is something you are born with and that you live with.

There are a number of areas which can cause dyscalculic difficulties, these could include written number problems and difficulties caused by poor working memory, these difficulties are different for everyone, and it has nothing to do with intelligence. Dyscalculia is classed as a disability under the Equality Act. (Dyslexia Scotland & Scottish Working Definition of Dyscalculia)

Helpful resources

- **Maths at Home** - dyscalculia information education.gov.scot/media/a54pqmlo/nih300-maths-at-home.pdf
- **Dyslexia Scotland** dyslexiascotland.org.uk/leaflets
- **BBC Bitesize** – Learning Activities www.bbc.co.uk/bitesize/parents
- **Education Scotland** - Additional Support Information for parents education.gov.scot/parentzone/additional-support
- **CALL Scotland** - iPad apps for pupils with Dyscalculia / Numeracy Difficulties www.callscotland.org.uk

Scottish Working Definition of Dyscalculia (2022):

‘Dyscalculia is a neurodevelopmental learning difference which can co-occur with a range of other specific learning needs. Dyscalculia can be described as a specific difficulty in understanding number and number processes which persists despite the provision of appropriate learning opportunities. It is distinguishable from other challenges associated with numeracy and mathematics due to the: persistent inability to understand and or retrieve numerical facts from memory, use of underdeveloped procedures and processes and severity of difficulties with number sense.

The full definition can be found on the Education Scotland website - education.gov.scot/resources/neurodiversity/dyscalculia/

Strengths associated with dyscalculia

- Great problem solvers
- Creative thinkers
- Good verbal communication skills
- Good builders, fixers and makers
- Stronger in creative fields
- Sees the bigger picture, strategic thinkers and using a holistic approach
- Different perspective people
- Visually skilled, strong visual thinking skills (i.e. creating something 3D from something 2D, strong spatial awareness)
- They can be 'people people' (show kindness, empathy and interest in others)

Difficulties associated with dyscalculia

- Difficulty instantly telling how many things there are or noticing patterns, without having to count one by one
- Unable to estimate answers to simple calculations, judge whether an answer makes sense and may have difficulty estimating measurements e.g. time, distance, volume
- Can have trouble telling left from right and may have a poor sense of direction
- Recognising and understanding number symbols (such as +, -, ×, ÷) and using them correctly
- Linking numbers and their amounts (i.e. making the connection between '7' and the word 'seven')
- Trouble writing numbers clearly or putting them in the correct order or the correct column
- May struggle to understand words related to maths such as 'greater than' and 'less than', may have trouble coming up with a plan to solve a maths problem
- Difficulty with everyday tasks involving number (i.e. trouble telling the time or counting money, may avoid playing games that involve number strategies)
- Short-term and working memory (i.e. difficulty remembering sequences of numbers and may struggle to hold numbers in their head)

It's important to remember, everyone has different strengths, difficulties and strategies that work for them.

Support strategies for children

Everyone is an individual and so what supports one person may not support another. Sometimes asking the person with dyscalculia to suggest solutions to problems can produce simple but effective results.

Key supports

These supports may be offered in school and if you wish to provide them, your child may find them useful at home.

- Use hands on materials to help make sense of maths ideas (i.e. counters, number lines, times table squares, Numicon etc).
- Allow thinking or processing time of at least 10 seconds.
- Multisensory (touch, sight, sound) learning to help memory (i.e. tracing numbers in sand or foam, singing maths facts or using technology)
- Any task or set of instructions broken down, pictures and checklists can help understanding
- Peer support (i.e. a buddy may help your child during maths lessons)
- Early identification and provision of appropriate support as soon as possible

Tips for parents

- It is accepted in society that people may feel stressed or dislike maths, is helpful to discuss maths positively as this will encourage children to attempt maths tasks
- Break down instructions and only give one or two at a time
- Homework shouldn't be a big struggle – support your child / agree an amount of time for the task and speak to the school if completing the homework is still problematic
- Using hands on materials, pictures and reminders can help learning
- Your child needs time to play and to unwind, school can be exhausting when you have dyscalculia
- Nurture me and help me feel the value in learning, it's more than just giving answers - 'giving it a go' really matters
- Embrace opportunities for learning in real life context (i.e. measuring ingredients when cooking, calculating totals when shopping or telling the time.