

Dyscalculia: Key Facts for Parents



This is not a comprehensive guide to dyscalculia. It is designed to give you some basic answers to the most commonly asked questions that we receive from parents. At nferNelson we don't publish dyscalculia support or diagnostic materials for home use. Our *Dyscalculia Screener*, a computer based test designed to diagnose learning difficulties with numbers, is the first of its kind in the UK. It has been created for diagnostic use by educational professionals, such as maths teachers, special needs co-ordinators and educational psychologists. We do however realise that this is an area that many parents, students and adults who experience number difficulties have a great interest in, and can find very little published information for. We have included contacts to support organisations, references to further reading and other suggestions you might find helpful.

What is dyscalculia?

Dyscalculia is sometimes called number blindness. It is the name given to the condition that affects our ability to acquire arithmetical skills. Dyscalculic learners may have difficulty understanding simple number concepts, lack an intuitive grasp of numbers and have problems learning number facts and procedures. Even when these learners produce a correct answer or use a correct method, they may do so mechanically and without confidence.

Schools have long experience of supporting children who experience profound difficulties with maths, but dyscalculia has only recently been identified as a distinct condition. This means that it is a fairly new term for many people – parents and teachers alike. It also means that there are many adults in the UK who have never had their difficulties with maths formally identified. Furthermore, while there is currently a great deal of interest in dyscalculia in academic, policy-making and educational circles, there isn't yet an established body of research in this area.

How does dyscalculia develop?

Little is known about the causes of dyscalculia, but it may be a condition that you are born with.

Is dyscalculia a common condition?

As people haven't been widely tested for dyscalculia, it is hard to quantify exactly how many people in the UK have the condition. It is probably about as common as dyslexia, which affects approximately 5% of the population. A recent study of over 1000 English children showed that 36 of them with otherwise normal abilities had specific learning disabilities in maths. This equates to approximately one pupil per class in the average school.

Most people with dyscalculia don't necessarily suffer from any other learning difficulty. Indeed they may well excel in non-mathematical areas.

If a child is dyslexic, are they more likely to be dyscalculic?

A link between dyslexia and dyscalculia hasn't been proved. The British Dyslexia Association has suggested that 60% of the 5.95 million Britons who have been identified as dyslexic have difficulty with numbers. Of the 40% of dyslexics who don't have maths difficulties, about 11% excel in mathematics. The remaining 29% of dyslexics have the same mathematical abilities as those who don't have learning difficulties.

Is dyscalculia widely understood in schools?

Most maths teachers have some awareness of dyscalculia. Last year, as part of the National Numeracy Strategy, the government published guidance for teachers to help them support dyscalculic pupils. Dyscalculia is likely to be a more familiar condition to people who specialise in learning difficulties such as special needs co-ordinators and educational psychologists.

Which parts of maths do dyscalculics struggle with?

Dyscalculics have problems with the most basic parts of arithmetic. A dyscalculic child may struggle with some or all of the following activities.

- Counting – reciting the number words in the correct order and being able to count a number of objects
- Reading and writing numerals – being able to understand that a number is a symbol that represents a value
- Number magnitudes – placing numbers in order of size
- Number facts – being able to understand that $2+2=4$ or $7 \times 10 = 70$
- Numerical procedures – counting on to add, borrowing and carrying to subtract
- Principles, concepts and laws of arithmetic – understanding that addition is cumulative and subtraction is not.
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How can I find out if my child is dyscalculic?

There are many reasons why a child may be doing badly at maths that don't amount to evidence of dyscalculia. However, there are some basic areas of mathematical activity in everyday life that may indicate a dyscalculic tendency if persistently difficult and frustrating for a child. These are:

- Telling the time
- Calculating prices and handling change
- Measuring things such as temperature or speed

If you think that your child might be dyscalculic, you should talk to their teacher. Find out if they share your concerns, what policy the school has towards dyscalculia and whether your child can be assessed.

Can dyscalculia be cured?

Dyscalculia is not an illness so it cannot be cured. Dyscalculia is a special need, and requires diagnosis and support. This support is designed to give children an understanding of their condition, and equip them with coping strategies that they can use in the classroom and in their day-to-day encounters with numbers.

Further reading and support

The Mathematical Brain, Brian Butterworth, Macmillan, 1999

Mathematics for Dyslexics: A Teaching Handbook, Chinn and Ashcroft, Whurr, 1997

The British Dyslexia Association,
(Helpline: 0118 966 8271 (Mon-Fri 10:00-12:45 and 2:00-4.45),

Adult Dyslexia Support UK,
(Helpline: 0207 924 9559

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For more information about *Dyscalculia Screener*, contact nferNelson on 0845 602 1937 or e-mail us at information@nfer-nelson.co.uk.