Supporting a Child with Dyscalculia:

A Guide for Parents

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If you are concerned about your child's progress and attainment in maths or noticed that they are persistently having difficulties, have you considered that they might have a specific learning difficulty? Use this guide to help you to find out a bit more about the condition and symptoms of dyscalculia, how a diagnosis is made and how to support your child at home.

What is dyscalculia?

Dyscalculia is a specific and persistent difficulty in using numbers. This difficulty causes a wide range of other mathematical difficulties. It can occur alongside other specific learning difficulties, maths anxiety and medical conditions. Around 5% of people have dyscalculia and it occurs across all ages and abilities. 60% of people with dyslexia also have mathematical difficulties. There are lots of ways that your child can be supported to improve their symptoms.

Signs

You might have noticed signs yourself or you might have been informed of them by your child's teacher, who will be able to monitor many of them in day to day teaching and learning.

- Your child has trouble learning to count and might experience difficulties counting forwards and backwards.
- They have difficulty connecting a number to the amount of items it represents, for example '5' stands for 5 dogs, 5 fingers or 5 apples etc.
- Your child has difficulty learning and recalling basic number facts, such as number bonds and times tables.
- They experience difficulties when trying to recognise small numbers of objects without counting (for example, numbers on a dice or eggs left in a box).
- They use their fingers to support simple addition and subtraction - they have not been able to move onto mental methods.
- They get confused between the signs +, -, x and ÷ and what they symbolise.
- Your child has trouble recognising patterns or sequencing numbers.
- They have difficulty recognising commutativity within addition and multiplication calculations (for example, 4 x 2 has the same answer as 2 x 4).
- They need support to identify place value and the value of a digit in a certain position.
- Your child may need support with understanding the meaning of mathematical language, meaning problem-solving is difficult.
- Making sense of money and working out total costs can be tricky.
- They have difficulty telling the time on an analogue clock.
- Your child has difficulty understanding how graphs and charts work and needs help to interpret the data.
- They have trouble keeping score in games involving maths, such as adding up totals and keeping scores, which lead to avoidance of these situations.
- Your child lacks speed and fluency when processing numbers and completing calculations.
- They have poor estimation skills.
- They have difficulty with multi-step problems.
- Your child has difficulty with directions and differentiating left and right.
- Your child has poor visual and spatial orientation.
- They display high levels of maths anxiety, which can worsen with age.

Your child might have some difficulties in some areas of maths and display some of these symptoms, but that doesn't automatically mean they have dyscalculia.

What causes dyscalculia?

It is unknown exactly what causes dyscalculia, but there are thought to be two possible causes:

- Dyscalculia can run in families so it is useful to know the medical history of your child's close family.
- People with dyscalculia have some differences in how the brain is structured and how it functions in terms of learning skills.

Dyscalculia can be present at birth or it can be acquired (for example, as a result of a traumatic brain injury).

Diagnosis

If you think that your child has dyscalculia, keep a record of the things that they find difficult and how these difficulties are affecting their progress in school or at home. Discuss your concerns with your child's teacher and the school **SENDCo**, who will be able to give you some more information and perhaps make some formal observations of your child.

At this stage, it is important to visit your doctor so that other conditions or problems can be ruled out, such as visual or hearing problems or conditions such as ADHD.

You will need to contact an **educational psychologist** or, in England, a Level 7 Dyscalculia assessor to move forward with an assessment. They will talk to you about your concerns and observe your child. They'll be able to make a full assessment, looking at their maths ability, logic reasoning, memory, processing speed, organisation skills and their approach to learning.

Diagnosis Criteria

- Your child exhibits difficulties in at least one of the symptoms related to difficulties with learning and using academic skills. Four of these are arithmetic skills, number facts or calculation, number sense and mathematical reasoning. These difficulties must have been apparent for at least six months and have not improved despite intervention.
- Your child is performing at below age-related expectations in the affected area(s).
- Their difficulties began in their early schooling.
- Other conditions or disorders have been ruled out.

The Next Steps

After diagnosis, the educational psychologist or Level 7 Dyscalculia assessor will provide a written report, from which an education plan can be drawn up between school staff, yourself and your child. This will consider how best to support your child to manage and overcome their difficulties. This support might include extra intervention, different teaching approaches, concrete apparatus and lots of visual techniques.

What can I do to support my child?

Use Objects

Your child will struggle to understand abstract mathematical concepts, so use anything you can at home to help them to see the maths. Counting, adding and subtracting real items, such as teddies, pencils or sweets will help them rather than expecting them to mentally work it out.

Use Real Life

Anything at home which uses maths skills and has a real life context will be useful. You could get your child to try some of these activities.

- Look at, group and count money.
- Role play shops and get them to give change.
- Go to the shops and get them to compare prices of similar items.
- Ask them the time at certain points during the day.
- Do some baking and put them in charge of measuring ingredients and working out timings.
- Measure furniture to see how it will fit in a space.
- Cut up pizzas into fractions or share some sweets equally between family members.

Be Proactive

Ask your child's teacher exactly what your child is working on at the moment and plan some short home sessions to support them at home and plug gaps in learning. Don't introduce new topics, but instead work on what they have been covering in school. Try not to make these sessions too long, which can become exhausting and increase anxiety. Instead, do some practise little and often, meaning it is more likely your child's memory for the skills or knowledge covered will be stronger. In these short sessions, you might find an alternative way to explain something to your child that really sticks - tell their teacher so that they can capitalise on this in class.

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What can I do to support my child?

Maths Apps and Games

There are so many apps and games available to help with maths difficulties. Your child's school might subscribe to some computer programs which tackle these difficulties, so ask them if they have any suggestions. Games involving quick recognition of numbers (such as dominoes or dice games) are great, as are games using packs of cards: quick games can be played by choosing two cards and adding, subtracting or multiplying them. Hopscotch is a great one for counting and number sequencing - you can use different sequences of numbers for your child to hop to in order.

Build Confidence

Your child's confidence is bound to be affected by their difficulties in maths and, the chances are, it'll worsen with age. Look for any chance to build their confidence and avoid any negative comments such as, "You should know that by now" Your child is probably well aware that they should know it and are probably incredibly frustrated and embarrassed with the situation.

When working on any maths at home, break a task into very small parts so that your child can encounter success at getting some of those parts right. Focus on the process and not just the end product.

Stay calm and patient with your child - there's nothing more likely to knock your child's confidence than to hurry them up or belittle them. They're not struggling on purpose.

Be an Advocate for Your Child

Remember, your child might be feeling very worried about maths and they may not be able to identify what might help them. This is where you become their voice: talk to them about what might help and talk to their class teacher. For example, some schools don't have squared paper in their maths books, yet your child might need lots of support with place value. Having squared paper in their books to set out a calculation and be able to see the columns will be much more beneficial for your child and increase success.

You might ask the teacher whether your child would be able to use a calculator for some maths work, depending on the topic and skills being practised. You might ask whether your child could have extra time for any tests taken in class to accommodate for their slow processing skills. Request them to provide concrete apparatus to help your child to manipulate to find answers to calculations. Tell the teacher what has worked at home to see how it can be replicated in school. Perhaps your child understands a concept better when they draw out the problem on paper - that's something easily incorporated into class work.

What can I do to support my child?

Deal with Maths Anxiety

Maths anxiety tends to get worse as a child gets older, so deal with it as soon as you can. Make sure that you keep a positive mindset about maths and ensure that you're not giving signals to them about any negative feelings or anxiety you have about it. They'll pick up on this very quickly and then it will be more difficult for you to undo the damage this causes.

Talk to your child openly about their difficulties so that they can see you are validating their feelings. Use the word 'dyscalculia' so that they know it is a recognised condition. Deal with comments such as "I'm stupid!" with both truth and kindness. Explain that they have a difficulty in a certain area which might make them feel this way. Tell them that you and their teacher will work together to provide lots of ways to help them increase their skills and knowledge.

Teach your child some anxiety management strategies so they can deal with their feelings more effectively. Get them to acknowledge these feelings and give them a repertoire of activities to manage them, such as slow breathing, muscle relaxation, meditation and mindfulness colouring. You can find lots of ideas in our **Wellbeing for Children** section.

Look After Yourself

Dealing with a child's diagnosis and the resulting worry can be exhausting. Be careful that, in doing everything possible to support your child, you don't burn out yourself. You won't be any help to them if you're not at your best. Regular rest and breaks away from your child, especially when you are feeling anxious, will be beneficial for you both. That way, you're more likely to get the best of each other and plan a positive route forward.

Disclaimers: We hope you find the information on our website and resources useful. As far as possible, the contents of this resource are reflective of current professional research. However, please be aware that every child is different and information can quickly become out of date. The information given here is intended for general guidance purposes only and may not apply to your specific situation.

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