



Empowering Children. Supporting Families. Building Brighter Futures.

Resource 090 | Learning disorders

Dyscalculia

What it means

Dyscalculia is a term for a specific learning difficulty affecting mathematics, including understanding numbers and learning arithmetic. Diagnosis generally becomes clearer during formal schooling. Early number-learning concerns deserve support, but ordinary preschool variation is not enough to establish a disorder. Mathematical difficulties do not imply low intelligence. [1]

Causes and risk factors

The condition involves differences in processes used for numerical learning and may occur alongside other learning or attention needs. Family vulnerability can contribute. Language, teaching opportunities, anxiety, and sensory access also affect math performance, so clinicians and educators consider these before interpreting a child's difficulties. [1,2]

General family education. A concern deserves assessment, but this guide does not diagnose a child or prescribe treatment.



Signs and everyday impact

A child may have persistent difficulty connecting numbers with quantities, comparing amounts, recalling arithmetic facts, or applying calculation procedures. These difficulties are assessed relative to age and instruction. Math avoidance or anxiety may follow repeated struggle but does not by itself establish dyscalculia. [1,2]

Assessment and diagnosis

Assessment reviews number concepts, calculation, problem solving, language, learning history, and response to instruction. Qualified professionals consider attention, reading, anxiety, and opportunities to learn. Standardized measures are interpreted in context. Preschool observations can identify support needs without predicting a definitive school-age diagnosis. [1,2]

Treatment and therapy

Support uses explicit, structured math teaching matched to the child's profile. Concrete materials, visual models, guided practice, and clear verbal explanations can help link quantities to symbols. Progress monitoring informs changes in instruction. Accommodations and assistive tools support access when appropriate, alongside treatment of co-occurring learning or emotional needs. [1,2,3,4]

Support at home

Use ordinary activities to compare, count, sort, and discuss amounts without pressure. Follow the educator's methods so explanations stay consistent. Keep practice brief and achievable, and address anxiety with reassurance and support. Avoid using timed drills as the only measure of understanding.

When to seek help

Seek educational assessment for persistent difficulties despite appropriate instruction. New loss of previously acquired skills, significant neurological change, or severe distress requires broader professional review.

Questions for your care team

- Which numerical concepts or procedures are difficult?
- What structured instruction and progress measures will be used?
- Are language, attention, or anxiety needs also affecting learning?



Podcast preparation

Use this outline to develop a later podcast script.

Suggested opening

Welcome to Mariel Early Intervention. Today we discuss dyscalculia. Dyscalculia is a term for a specific learning difficulty affecting mathematics, including understanding numbers and learning arithmetic. This is general education; each child needs individualized care.

Opening: Define the topic and its developmental context.

Understanding: Explain causes and signs without inviting self-diagnosis.

Assessment: Describe evaluation and distinguish screening from diagnosis.

Support: Discuss treatment, therapy, and practical family supports.

Closing: Explain urgent signs and one clear next step.

Misconception to address: Myth: difficulty with math reflects lack of effort. A child may need a different teaching approach and assessment.

Before recording: update clinical references and local service details, arrange clinical review, and use fully consented or fictional examples.

Terms in plain language

- Number sense: understanding quantities and relationships between numbers.
- Calculation: carrying out arithmetic operations.
- Concrete representation: physical objects used to demonstrate a concept.

Sources and further reading

Sources accessed 3 October 2026. Numbered references support the clinical overview. Treatment availability and referral routes vary by country.

[1] Eunice Kennedy Shriver National Institute of Child Health and Human Development - NICHD

<https://www.nichd.nih.gov/health/topics/factsheets/learningdisabilities>

[2] Learning Disability Evaluation

<https://www.healthychildren.org/English/health-issues/conditions/learning-disabilities/Pages/Learning-Disability-Evaluation.aspx?form=HealthyChildren>

[3] What are the treatments for learning disabilities?

<https://www.nichd.nih.gov/health/topics/learning/conditioninfo/treatment>

[4] What are some signs of learning disabilities?

<https://www.nichd.nih.gov/health/topics/learning/conditioninfo/signs>