

## **Dyscalculia**

Dyscalculia is a learning disability that affects the ability to learn arithmetic and mathematics in someone of normal intelligence, as compared with those of the same age who receive identical instruction. It may cause difficulty with counting, measuring quantity, working memory for numbers, sequential memory, ability to recognize patterns, time perception, telling time, sense of direction, and mental retrieval of mathematical facts and procedures. Dyscalculia is a lifelong condition that can hinder academic progress and self-esteem; however, it can be managed with treatment, especially that which is initiated in early childhood.

### **Statistics**

• 5-10% of school age children are estimated to have dyscalculia.

## **Symptoms**

- Difficulty adding, subtracting, multiplying, and dividing numbers, or getting inconsistent results when doing so
- Problems understanding the rules of math or memorizing mathematical facts and formulas
- Trouble identifying which quantity is largest or smallest
- Difficulty reading analog clocks
- Challenges performing mental math
- A persistent need to count on one's fingers after peers have ceased to do so
- Trouble with money-related tasks such as making change, calculating tips, or estimating sale prices

- Difficulty estimating values like speed, time, or distance
- Difficulty telling right from left or orienting oneself in space
- Frequent lateness or poor time management

## **Diagnosis:**

There is no single test to diagnose someone with dysgraphia. The disorder is typically diagnosed through a **comprehensive evaluation** that tests specific math skills and general cognitive abilities; reviews family history, standardized test scores, and past academic performance; and rules out other, related disorders, such as generalized anxiety or ADHD.

#### **Risk Factors for Children**

- There is a link to genetics.
- Dysgraphia is not directly linked to anxiety, but the presence of dysgraphia can cause anxiety in children when asked to work on math, which cyclically can spur poor performance in math.

#### **Treatment**

Specialized math	<b>Medication:</b> Taking	Accommodations:
instruction for each child's needs	medication for ADHD has been shown to sometimes help quell the symptoms of dyscalculia.	<ul> <li>Extra time on tests</li> <li>Reduced math homework</li> <li>Calculator use</li> <li>Check-ins during classwork</li> </ul>

## **How Can I Help My Child?**

- Address anxiety: Many children with and without dyscalculia struggle
  with what's commonly called math anxiety. "Kids who have a hard time with
  math often feel serious anxiety when it comes to doing any math-related task,
  especially homework or tests," explains Meredyth Kravitz, PhD, a clinical
  neuropsychologist.
- **Support self esteem**: Like most learning disabilities, dyscalculia often has hidden costs. If a child has dyscalculia he/she may feel frustrated or embarrassed

when asked to do things — like reciting multiplication tables — that are difficult for him/her, especially during class or when other students are present.

#### **Resources:**

Dyscalculia: Symptoms, Causes, Diagnosis, and Treatment (psychcentral.com)

Dyscalculia & Math Anxiety: Signs, Symptoms, Diagnosis (additudemag.com)

What is dyscalculia and how can it be spotted and supported in children and adults? | National Numeracy

Dyscalculia | Psychology Today

About Dyscalculia (unesco.org)

Dyscalculia: What It Is, Causes, Symptoms & Treatment (clevelandclinic.org)

https://childmind.org/article/how-to-help-kids-dyscalculia/

# Extra Helpful Resources (Books)

- *The Whole Brain Child* by Daniel J. Siegel, M.D. and Tina Payne Bryson, Ph.D.
- How to Talk so Little Kids Will Listen by Joanna Faber and Julie King
- How to Talk so Kids Will Listen and Listen so Kids Will Talk by Adele Faber and Elaine Mazlish
- No-Drama Discipline; The Whole-Brain Way to Calm the Chaos and Nurture your Child's Developing Mind by Daniel J. Siegel, M.D. and Tina Payne Bryson, Ph.D.
- Breaking Free of Child Anxiety and OCD by Eli R. Lebowitz, Ph.D.
- Freeing your Child from Anxiety by Tamar E. Chansky, Ph.D.