



# Handy Handouts®

Free informational handouts for educators, parents, and students

## What Is Dyscalculia? Is It Treatable?

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### ? What Is Dyscalculia?

Adults and children with poor memory and below average skills for all things mathematical may have characteristics or symptoms of a disorder known as "dyscalculia." Their learning disability may be overlooked because the adults and children experiencing this difficulty may be of average to high intelligence. They may have strong reading and language skills, good visual memory for the printed word, and may excel in the creative arts and sciences. Dyscalculia may not easily be identified as a problem or disability because the student may not have any other language or physical disabilities that would generally help point to a math disability. Parents and teachers unfamiliar with dyscalculia may brush off poor math performance as "Math just isn't his/her thing."

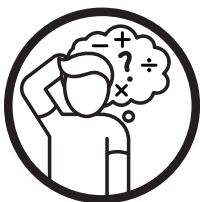


Some symptoms of dyscalculia you might observe, particularly in younger children, include difficulty:

- understanding place value, quantity, number lines, carrying, borrowing, and positive/negative values
- solving word problems;
- sequencing information;
- organizing steps in math operations
- handling money and making change
- recognizing or using patterns when adding, subtracting, multiplying, or dividing
- understanding time concepts such as days, weeks, months, seasons, quarters, or telling time on an analog clock
- keeping place value of numbers lined up on a page for solving different operations, especially long division

### ? What Are Some Signs of Dyscalculia?

Signs of dyscalculia may surface as early as preschool when teachers ask students to memorize their phone number and birthday, recall simple number line counting, sing number songs, etc. The child may be able to recite the information one day, forget it by the next day, and then must relearn everything again. Remember, students with dyscalculia may have normal or accelerated language acquisition in verbal, reading, and writing skills. They may exhibit good visual memory for print, but struggle with the simplest math skills.



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Older students may exhibit the above symptoms, as well as have difficulty:

- recalling schedules
- being on time; recollecting names and faces
- calculating mental math (math facts, time, and money)
- grasping concepts of applying rules, formulas, or a sequence of operations (algebra); visualizing hands on a clock;
- recalling or finding geographical locations on a map (pointing out states, countries, continents, oceans, etc.)
- learning the finger placement on an instrument or sight-reading music
- keeping up with physical directions in dance (step sequences) or athletic games
- remembering how to keep score in games or losing track of whose turn it is
- planning ahead strategically to win a game like tic-tac-toe, chess, checkers, or card games

- allow and encourage the use of graph paper to help keep place values of numbers in line
- use colored pencils to distinguish problems
- use manipulative counters, tokens, etc. to help calculate basic operations; use mnemonic devices to learn math concepts or order of operations (as in algebra with the acronym - Please Excuse My Dear Aunt Sally - parentheses, exponents, multiply, divide, add, subtract)
- help students memorize math facts by using music and/or rhyme; drill and practice concepts on a computer, on paper, or with flash cards
- help students connect math concepts to all aspects of daily living (preparing recipes, reading and calculating time schedules, paying bills, making change, etc.)

## How Can Teachers and Parents Help?

Parents should voice concerns to teachers regarding their child's poor math performance early on, especially when the student is performing in an average range or excelling in other subjects. **Some strategies for helping students cope with mathematical difficulties are to:**

- allow the use of counting on the fingers and use of scratch paper
- allow and encourage students to draw diagrams or pictures of math concepts

Parents and teachers should keep documentation and copies of papers that seem to mirror the student's difficulties with concepts that should have been well mastered by his/her chronological age. Documentation of difficulties and the strategies already in use to remediate math skills is important to present to the special education team before administering a formal evaluation. Within this evaluation, the specific skills that the child struggles with will surface. Once the evaluation identifies these skills, teachers and parents can work together to help the student manage the dyscalculia disorder. Some schools provide tutoring programs with staff members or student peers before or after school. Hiring a tutor or therapist familiar with teaching strategies for those with dyscalculia may be another alternative.



**Resources:**

Dyscalculia.org – Math Learning Disability Resource. (2008). *Dyscalculia symptoms*. Retrieved from <http://www.dyscalculia.org/calc.html>  
 LDA of California and UC Davis M.I.N.D. Institute "Q.U.I.L.T.S." Calendar as cited in Learning Disabilities Association of America. (2010). *Dyscalculia – mathematical disability*. Retrieved from [http://www.ldanatl.org/aboutld/parents/ld\\_basics/dyscalculia.asp](http://www.ldanatl.org/aboutld/parents/ld_basics/dyscalculia.asp)

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