

# Math and LDs: A Snapshot

## **About Mathematics and LDs.**

Mathematics can be affected by learning disabilities – as frequently, according to some, as language skills are affected. Historically, students with math LDs were not generally referred for evaluation, and children who have been identified with this sort of LD have not received the level of intervention and remediation that is provided for language skills. Literacy skills were generally seen as more crucial than numeracy; it has been traditionally assumed that it is alright to “be bad at math”.

In recent years, more attention has been paid to how numeracy skills develop, and to assessment and remediation of math difficulties. A lack of competence with the mathematical basics can have a serious impact on work and day to day life.

## **Types of Mathematical Learning Disabilities**

- difficulty learning basic number facts
- difficulty with arithmetic/calculation
- difficulty with symbols
- visual-Spatial difficulties

Additionally, learning problems that are not directly related to math can and will impact on mathematics. Language skills are required for many mathematical problems, as are executive functions like planning, organizing, and self-reflection.

## **What Helps?**

In broad terms, the same truths apply to math LDs as to others: early spotting of strugglers, and appropriate intervention and remediation, can make a big difference in the development of positive or negative attitudes toward math, and can move some students back on track so that difficulties don't compound and snowball over years. Early intervention is crucial, as repeated and early experiences of failure are the basis for math-phobia, and the lowered self-esteem that comes with continuous, long term struggling.

More specifically, remediation and accommodation need to target the specific area of struggle. This requires a detailed analysis of where the student is encountering difficulty and making errors. For students who struggle with memorizing basic math facts, practice and assistance are important, but so are simple accommodations like the use of addition and multiplication tables and calculators. Such accommodations should be allowed when the student is learning and being tested on higher level math concepts or problem-solving rather than basic calculation.

### **What Helps?** *(continued)*

Since mathematics learning disabilities are varied and individualized, it is crucial that the abilities and struggles of specific students are targeted by consistent and research-based teaching techniques. For example, cognitive strategies can be taught for dealing with math problem-solving.

More information on this and related topics can be found online at [www.LDAO.ca](http://www.LDAO.ca). This snapshot was created in Summer 2007. Please share freely, but do not reproduce for purposes of resale.