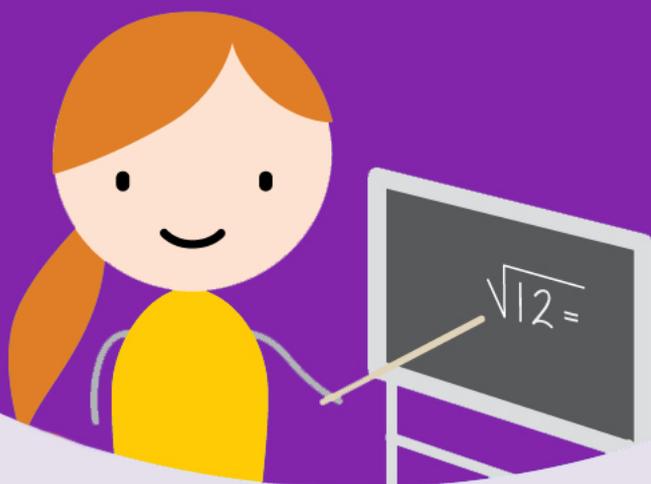


# Numeracy and epilepsy



The impact of epilepsy is variable – some students are greatly affected while others are not.

**Solid reasoning and thinking underpins numeracy and is demonstrated by manipulation of abstract symbols to gain a solution to a specific problem. Underlying the ability to manipulate abstract symbols are basic concepts and competencies. Some students with epilepsy may not have fully developed these required concepts and competencies.**

## **Possible causes of numeracy difficulties**

- Difficulties in grasping the language of numeracy. *(Refer related fact sheet on language)*
- Visual or auditory processing difficulties. *(Refer related fact sheets on visual or auditory processing)*
- Difficulties grasping key features of a concept and/or transferring concepts to other contexts.
- Temporary lack of ability or confusion due to seizures and/or medication and/or frequent medical related absences.
- Lessened performance due to underlying neurological problems.

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## **Possible indicators of numeracy difficulties**

- Confuses operational signs.
- Finds it difficult to recall number facts.
- Finds it difficult to grasp abstract math concepts.
- Has difficulty recalling and applying appropriate math procedures.
- Has difficulty discriminating between relevant and irrelevant data to solve math problems.



### How teachers can help

- Modify numeracy activities to the student's level to ensure understanding and confidence building.
- Assist student to read and interpret mathematical language and teach problem solving strategies.
- Encourage the student to talk about mathematical ideas, to verbalise symbolic statements. Language and concept formation go hand in hand.
- Frequently review and practise new skills and concepts introduced.
- Provide opportunities for the student to explain their new learning to a peer, or adult.

### Strategies to try

- Real life and purposeful learning activities are the most effective teaching tool to develop numeracy skills, e.g. cooking.
- Concrete activities are essential to establish concepts and allow learning to progress.
- Allow opportunities for the student to practise repetition of number facts such as table facts and automatic response through class and computer games.
- When introducing a new concept, use as many representations of the concept as you can: use manipulatives and models, real-life examples, technology and symbolic representations.
- Once concepts are established, calculators can be a very helpful tool to assist the student.



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This fact sheet is part of a suite of resources that are targeted to both parents and teachers to assist students with epilepsy in the primary, secondary and special school settings. Special thanks to Dr Silvana Micallef, Snr Clinical Neuropsychologist, Austin Health, for her help in compiling this fact sheet.

The information contained in this publication provides general information about epilepsy. It does not provide specific advice. Specific health and medical advice should always be obtained from a qualified health professional.

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