



# Attention and concentration problems

**A brain injury can affect attention or concentration abilities, leading to problems with work, study and everyday living.**

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## Brain injury and concentration

People who have sustained a brain injury may not immediately recognise that their ability to concentrate has changed. There are often no physical signs to suggest a problem exists. This can lead to misunderstandings when others perceive an inability to concentrate as a lack of intelligence or motivation. This problem is of particular concern with children who return to the classroom after acquiring a brain injury.

People who have sustained a brain injury may:

- become easily distracted and have trouble keeping track of what is being said or done
- have difficulty doing more than one task at a time
- experience information overload, and be slower at taking in and making sense of information.

Concentration problems can inhibit the ability to learn and remember information, causing people to feel frustrated with themselves and others. They may be easily overwhelmed and confused, which can exacerbate problems related to fatigue, headaches and dizziness.

## Causes of concentration problems

When a person experiences concentration problems after a brain injury, the likely cause is injury to specific areas of the brain. A region of the brain called the lateral intraparietal cortex controls attention by filtering out what is and is not important at any given time. This region then stimulates the medial temporal area which influences the processing of visual information.

If damaged, the ability to maintain visual attention is affected. There is also evidence that the cerebellum, at the back of the brain, has an influence upon attention and concentration as its core role is coordinating muscle activity.

- fatigue and tiredness, particularly from sleep disorders
- pain and other physical sensations, particularly headaches and including joint, muscle and organ pain
- illness, including short term infections or long term disease
- hunger
- dietary inadequacy, particularly B group vitamins and iron
- legal or recreational drugs and environmental toxins such as carbon monoxide mental health conditions, particularly depression and mania
- extremes of mood, including fear.



### **Strategies to improve attention and concentration**

It is important to realise that concentration and attention problems are influenced by the brain injury. For those supporting someone with a brain injury, it is important to be empathetic and show reassurance when necessary.

Strategies can be generated from experience, with an awareness for what is currently working, or what has worked in the past. But be aware that what has worked in the past may no longer work due to the changing effects of brain injury.

Identify specific situations where particular strategies may be effective.

The following strategies may be helpful after a brain injury:

- reduce all possible distractions in the environment
- take regular rest breaks, lie down or go for a walk
- meditation, deep breathing and other strategies for physical and mental relaxation, such as having a coffee break or talking to friends
- plan to approach tasks with a simple step-by-step method
- break significant tasks down into small and achievable steps
- write information down using notes, and keep them in specific places

- use a voice recorder to tape messages that can be regularly played back
- use a white board to help organise, plan and store information
- use 'association' techniques, e.g. putting medication on the table with every meal
- get into a regular, structured daily routine
- aim for variety within the everyday routine
- schedule demanding tasks when levels of energy and alertness are greatest, often early in the morning
- eat a healthy diet and sleep well
- use self-talk to monitor thoughts and actions
- use a timer, electronic organiser or smart device and set goals to steadily improve duration of concentration in small steps.