



The effects of brain injury

Headway's publications are all available to freely download from the [information library](#) on the charity's website, while individuals and families can request hard copies of the booklets via the [helpline](#).

Please help us to continue to provide free information to people affected by brain injury by making a donation at www.headway.org.uk/donate. Thank you.

Introduction

This factsheet provides an overview of some of the main difficulties that can affect people after brain injury. All brain injuries are different and people may be affected to a varying degree by any number of these problems depending on the severity of their injury and the area of the brain which is affected.

We have grouped the main effects of brain injury into three areas:

Physical – affecting how the body works

Cognitive – affecting how the person thinks, learns and remembers

Emotional and behavioural – affecting how the person feels and acts

Physical effects

Fatigue. Excessive tiredness is common to all severities of brain injury, including mild injuries. Tasks that we take for granted, such as getting dressed or walking around can require much more effort after brain injury. It is important to allow for rest periods at regular intervals during the day, and not to feel that everything has to be done at once. For more information and guidance on fatigue, see the booklet [Managing fatigue](#).

Mobility can be affected following brain injury. Movement can become very slow and balance can be affected. Indeed, having a brain injury can sometimes feel like 'living life in the slow lane'. Some people may need a wheelchair or other mobility aids, because their poor balance and co-ordination means they cannot walk without support. The fact that they use a wheelchair does not necessarily mean that the person cannot stand or walk for short distances.

Sensory impairment. Sensation of touch on the skin may be reduced, lost or exaggerated. It may also be difficult for the person to know where their limbs are positioned without looking at them. Eyesight may be affected and this may not be correctable with glasses. Odd postures or walking patterns may also be explained by sensory impairments. Taste or sense of smell may be impaired or lost, either in the short or long term (for more information on this, see the factsheet [Loss of taste and smell after brain injury](#)).

Helpline: 0808 800 2244

Email: helpline@headway.org.uk

Website: www.headway.org.uk



Difficulties with speech. Slow, indistinct or rapid speech is common after a brain injury. It may be hard to understand the person's speech at first, but the listener may learn to 'tune in'. Some people may repeat what they have said many times over: this is known as **perseveration**. Some people may lose the ability to speak altogether. Remember, their inability to express themselves does not mean that they have lost their intelligence. For more information on this, see the booklet [Coping with communication problems after brain injury](#).

Epilepsy. Brain injury can make a person prone to epileptic seizures or 'fits'. Many people who have had a seizure after a brain injury are given a drug for a number of years to reduce the chance of it recurring. The drug may have an overall 'dampening' effect on the person's level of arousal, and therefore on the performance of everyday tasks. Remember the added effect that this could have if the person already has excessive fatigue. It is important to remember that a person who suffers from seizures may not be allowed to drive and should contact the DVLA for advice. For more information on this, see the factsheet [Epilepsy after brain injury](#).

Spasticity can be present. Limbs may be stiff or weak, and the range of movement limited. Often one side of the body is affected more than the other, depending on the area of brain that is injured. Spasticity may cause pain or discomfort. If this occurs it is advisable to seek help from a GP, who may be able to prescribe drugs to reduce muscle spasms.

Weakness or paralysis, known as 'hemiparesis or 'hemiplegia', is often present when the motor areas of the brain are injured. The condition often affects one side of the body more than the other depending on the side of the brain that is injured (each half of the brain controls the opposite side of the body). This could mean that help is needed during personal care and when getting dressed or undressed. For more information on this, see the factsheet [Coping with hemiplegia and hemiparesis](#).

Ataxia is irregular, uncontrolled movement or tremor affecting the co-ordination of movements. The person's hands may be shaky or clumsy, and handwriting may be difficult or impossible.

Hormonal imbalances - Brain injury may cause damage to the hypothalamus and/or pituitary gland, which are small structures at the base of the brain responsible for regulating the body's hormones. Damage to these areas can lead to insufficient or increased release of one or more hormones. If damage to the pituitary gland leads to a reduction in hormone production the resulting condition is known as hypopituitarism. Another hormonal condition which can be caused by brain injury is neurogenic diabetes insipidus, which is usually a short-term problem in the acute stage after injury but can occasionally persist in the long-term. For further information on these conditions see the



Headway factsheet [Hormonal imbalances after brain injury](#).

Cognitive effects

Problems with memory, particularly short-term memory, are common after brain injury. Some people may be unable to remember faces or names, or what they have read or what has been said to them. New learning may be affected, while previously learned skills may still be intact. For more information on this, see the booklet [Memory problems after brain injury](#).

Reduced initiation and problems with motivation. Problems with getting started on tasks are common, and can often be mistaken for laziness. These problems may also be a symptom of depression (see 'Emotional and behavioural effects', below).

Reduced concentration span. This is very common and can also impact on memory problems. Completing tasks can be a problem and the task may be abandoned before reaching the end. The person may initially appear eager to start a task, but then lose interest very quickly.

Reduced information processing ability. People can take longer to think things through or work out what has been said to them. 'Information overload' can be quickly reached, and can cause frustration and anger.

Reduced problem-solving ability. It may be difficult for the person to work out what to do if they encounter an unexpected problem.

Repetition or 'perseveration'. The person may be unable to move on to another topic in the same conversation, and they may return to the same topic over and over again. They may also repeat the same action, appearing unable to break the cycle.

Impaired reasoning may affect a person's ability to think logically, to understand rules, or follow discussions. The person may easily become argumentative due to lack of understanding.

Many of the above cognitive effects are collectively called 'executive dysfunction'. For more information on this, see the factsheet [Executive dysfunction after brain injury](#).

Impaired insight and empathy can cause difficulties in accurately perceiving and interpreting one's own and other people's behaviour and feelings. Putting oneself 'in someone else's shoes' can be almost impossible. The person may also have an unrealistic view of themselves and others, and may not appreciate that they have certain problems. This may lead to unattainable goals being set, which then leads to frustration. For more



information on this, see the factsheet [Lack of insight after brain injury](#).

Language loss (aphasia). This may be 'receptive' (difficulty making sense of what is said or read) or 'expressive' (difficulty finding the right words to say or write), or both. This can be very frustrating for the person and for others, and patience is needed on both sides. Remember - just because a person cannot express themselves, does not mean they do not need or want to be heard.

Impairments in visual-perceptual skills. The person may have difficulty making sense out of ordinary pictures and shapes, finding the way around a building, or drawing or constructing objects. Sometimes people lose the ability to recognise faces or other types of object, even the faces of family members and friends. These problems can be particularly frustrating for a person who is quite competent in their language and social skills. Occasionally, people may fail to respond to stimuli coming from one side of their visual field, or may ignore a particular side of their body, for example when shaving or dressing. This condition is known as **visual neglect**.

Emotional and behavioural effects

Personality changes. Many people experience changes in aspects of their personality. These can range from subtle changes in some areas to dramatic transformations. This can be particularly difficult for family members and friends to deal with as they find themselves dealing with a totally different person. For the person with the brain injury, losing a sense of their own identity can also be difficult to cope with.

Loss of confidence. This is very common after brain injury and a person can need a lot of encouragement and reassurance.

Mood swings or 'emotional lability'. The person may have a tendency to laugh or cry very easily, and to move from one emotional state to another quite suddenly.

Depression and sense of loss are common. Depression may be caused by injury to the areas of the brain that control emotion, but can also be associated with the person gaining an insight into the other effects of their injury. After brain injury, many things that are precious to the individual may be lost forever and there may be much sadness, anger, guilt and confusion, surrounding this. For more information on this, see the factsheet [Depression after brain injury](#).

Anxiety can be another consequence of brain injury. Life has been changed forever in a matter of seconds, and the future can look frightening. Anxiety can quickly lead to frustration and anger and needs to be identified and alleviated as early as possible.

Frustration and anger. Frustration can build up quickly, especially when things that were



once so easy are now difficult or impossible. The resulting anger may be very difficult for the person to control. More information on this is available in the booklet [Managing anger after brain injury](#).

Abusive or obscene language may be used. This may be spontaneous and uncontrollable, and may be an outlet for the person's anger and frustration. This behaviour can obviously be embarrassing and upsetting for loved ones.

Disinhibition. There may be a loss of control over social behaviour, so that the person may behave in an over-familiar manner or may make sexual advances with the wrong people at the wrong time. They may also be unable to inhibit what they are thinking and may make inappropriate and offensive outbursts.

Impulsiveness. A person with a brain injury may tend to speak or act without thinking things through properly first.

Obsessive behaviour can occur. For example, a person may be afraid that their possessions will be stolen, and may check their belongings repeatedly.

Conclusion

The effects described in this factsheet are the most common typically experienced after brain injury. They may occur in any combination and there may be other, more unusual, effects. For further information on these and other practical problems associated with brain injury see the resources signposted below.

To discuss any issues raised in this factsheet or to find details of our local Groups and Branches, please contact the Headway helpline free of charge on **0808 800 2244** or helpline@headway.org.uk. You can also find more information and contact details of Groups and Branches on our website at www.headway.org.uk.

Further information

To discuss any issues raised in this factsheet, or to find details of our local groups and branches, please contact the Headway helpline free of charge on 0808 800 2244 (Monday - Friday, 9am-5pm) or by email at helpline@headway.org.uk.

You can also find more information and contact details of groups and branches on our website at www.headway.org.uk/supporting-you.

Factsheet first published 2009. Last reviewed and updated 2017. Next review 2019.

Helpline: 0808 800 2244
Email: helpline@headway.org.uk
Website: www.headway.org.uk