The effects of brain injury

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.

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.

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.

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.

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 damaged. This is known as hemiplegia. 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 often affects one side of the body more than the other. This could mean that help is needed during personal care and when getting dressed or undressed. Muscle weakness may affect continence, and continence aids may be needed.

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, which causes disruption of the body's ability to maintain a stable internal environment (homeostasis). 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, whilst previously learned skills may still be intact.

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 speed of information processing. 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.

Impaired judgement 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.

Lack of insight. The person may 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 failure and frustration.

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. 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

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.

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.

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 those nearby.

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.

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 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.

This factsheet is adapted from the Headway booklet *The Effects of Brain Injury and How to Help.* To order this or any other Headway booklets call 0115 924 0800 or visit the website. Our factsheets are freely downloadable from the website and copies can also be obtained from the Helpline. Brain injury survivors and carers can receive free copies of appropriate booklets from the helpline.

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