Overview of Brain Injury

The term brain injury covers a wide range of injuries, which can have different effects for each individual. These can range from a mild brain injury involving complete recovery within a few days to severe brain damage resulting in permanent coma or death.

Having recovered from the immediate trauma of a brain injury, many people experience long-term changes to their life, which can include a wide range of disability affecting physical, sensory, emotional, behavioural, social and cognitive skills. In particular, cognitive impairment following brain injury can affect memory, concentration, speed of thought, language, reasoning, self-awareness and perception. Often for those with less severe brain injuries these difficulties may not be evident on first leaving hospital; difficulties might start to emerge as a person begins to take part in previous roles and activities (e.g. family responsibilities, leisure activities, employment) and can also be picked up from neuropsychological assessments.

Most people with moderate to severe brain injuries are likely to have some difficulties with cognitive skills at least in the early stages. Generally, most recovery takes place during the first few years following the injury and then tends to slow down or level out. However, some research suggests that small amounts of recovery can continue indefinitely as the individual and their family learn to cope with everyday life and learn to find ways around problems that arise. While it is impossible to predict how much natural improvement is likely to be made or whether a person will return to 97%, 85% or 45% of their original mental capacity, some permanent reduction in their cognitive ability is usual after a severe brain injury.

The following sections will attempt to highlight the sorts of cognitive difficulties that are often experienced following brain injury.

Memory

Common memory problems after a brain injury include loss of memory for events and information about life before the incident and also problems learning or remembering new information.
• **Retrograde Amnesia:** Is loss of memory for events and information leading up to the injury, which can be a few minutes, hours, days, weeks or years.

• **Post-Traumatic Amnesia (PTA):** Is the loss of memory following the injury until the person starts to retain some information and continuity in their memory function. Again this can range from seconds to years and in extreme cases some people have no return of continuous memory function.

• **New Learning:** Difficulty learning and remembering new information is common to most people with brain injury and can often affect ability to recall information about personal details, appointments, events or what people have just said. Despite these difficulties some people still have intact long-term memories (e.g. childhood and family history).

**What Helps?**

One of the most important aspects of overcoming memory difficulties is to accept the difficulties and adopt suitable strategies. Different strategies work for different people, so it is worth trying a number of strategies to find ones that best suit your needs and lifestyle. Sometimes it takes a while to incorporate these strategies into your current routine, but it is worth persevering for a few weeks!

• **Diaries & Calendars:** Get into the habit of recording important information into a diary or calendar to help you remember (e.g. appointments, things you need to know that day, tasks to be completed, things people have told you or things you need to tell them). Keep the dairy with you at all times and try to get into the habit of checking your diary at regular intervals throughout the day (e.g. every hour or after meals).

• **Routine:** Try to have a set routine (e.g. do the same thing at the same time, leave things in the same place).

• **Notes:** Write on sticky notepaper and stick notes in places that will help you to remember.
**Information Processing (Attention, Concentration & Speed of Processing)**

Decreased attention, concentration and speed that the person can deal with information are also areas of difficulty commonly experienced following a brain injury. These problems can restrict the length of engagement in activities, particularly watching TV, reading or when talking to a group of people. Moreover, some people find they are easily distracted by noise, have difficulties concentrating when they are tired and find they have to start an activity again and again without ever finishing it. Other problems might include slower reactions to events or slower thinking.

**What Helps?**

- Work alone with no distractions (e.g. turn off the TV, go somewhere quiet).
- Break activities down into small sections with long breaks.
- Cut down on non-essential activity and try to keep the amount of things you do to a minimum to begin with.
- Take regular breaks and try not to put your mind under too much stress.

**Language**

Following brain injury some people experience language difficulties that can include problems with speech, understanding others, reading, writing and spelling. For more information about these difficulties please see our leaflet entitled ‘Communication’.

**Perceptual and Spatial Skills**

When perceptual and spatial skills are affected, people can experience problems identifying faces, recognising objects or pictures, double vision, control of eye movements, only seeing things on one side of their body, judging distances, putting clothes on the wrong way or drawing.
**Reasoning & Problem Solving**

Sometimes people find that they are unable to reason things through logically, lose their train of thought, have rigid or inflexible thinking which can make it difficult to take on other people’s point of view.

**Awareness & Insight**

People presenting with awareness and insight difficulties following brain injury may find that they are unaware of how they are presenting themselves, may engage in inappropriate behaviour without realising they are doing so, have difficulty picking up subtleties in conversation and humour, and their social skills may be misplaced.

**References & Further Information**

The following books and leaflets also provide further information about cognitive impairments following brain injury.


- Psychological Effects of Head Injury: Andy Tyerman, Headway National Head Injuries Association.