

Information Pack on the effects of severe head injury and brain injury case management

For the person who had a brain injury

And for family members

INTRODUCTION

This information pack provides a simple outline of the effects of severe head injury. It is intended to help you understand what has happened.

For clients of CMS, it is intended to help you build on the package of supported living and/or the rehabilitation programme we are currently providing. Your case manager will go through this information pack with you. They will be happy to explain anything that is difficult to understand and they will answer any questions you may have which arise from this information.

Please note that any terms which you do not understand may be explained in our glossary.

The information is based in part on a previous hand-out, "The Effects of Severe Head Injury" by W McKinlay and A Hickox, 1988. A fuller account of the subject can be found in the chapter entitled "Rehabilitation after Brain and Spinal Cord Injury" by WW McKinlay, AJ Watkiss and M Rooney, in the book "Personal Injury Major Claims Handling" by Goldrein, De Haas, and Frenkel, published by Butterworths in 2000.

IMMEDIATE EFFECTS OF SEVERE BRAIN INJURY

If an injury is severe, the injured person is usually knocked unconscious. As a result, he/she will not be able to remember the moment of injury - ever. This is because the brain fails to store information in the memory. Memory for events for a period **before** the impact is lost (this is called "retrograde amnesia"); and memory for events for some time **after** injury can also be lost (this is called "post-traumatic amnesia" or P.T.A.).

The failure to remember what happened at the time of injury is therefore not intentional - it can't be helped. And since this information wasn't stored in the first place, no amount of "jogging" the memory will make the injured person **genuinely** remember it.

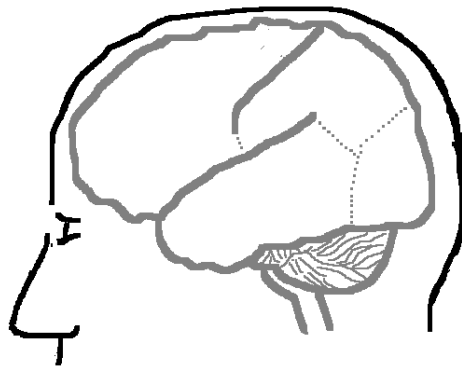
The brain suffers some **injury** at the time of impact. The hospital doctors and nurses try to prevent, so far as possible, further damage from brain swelling, formation of blood clots, and so on. At this time the person may have tubes and drips attached, may have to undergo surgery, and the immediate concern of the family is for the person's survival.

Once the threat to the person's life is past, he/she starts the slow process of improving in hospital, and then building on this improvement by re-learning old skills as well as learning new skills in rehabilitation. At this time, the family are thankful the person has "made it" and they often concentrate on any **physical** injuries or disabilities which are still present.

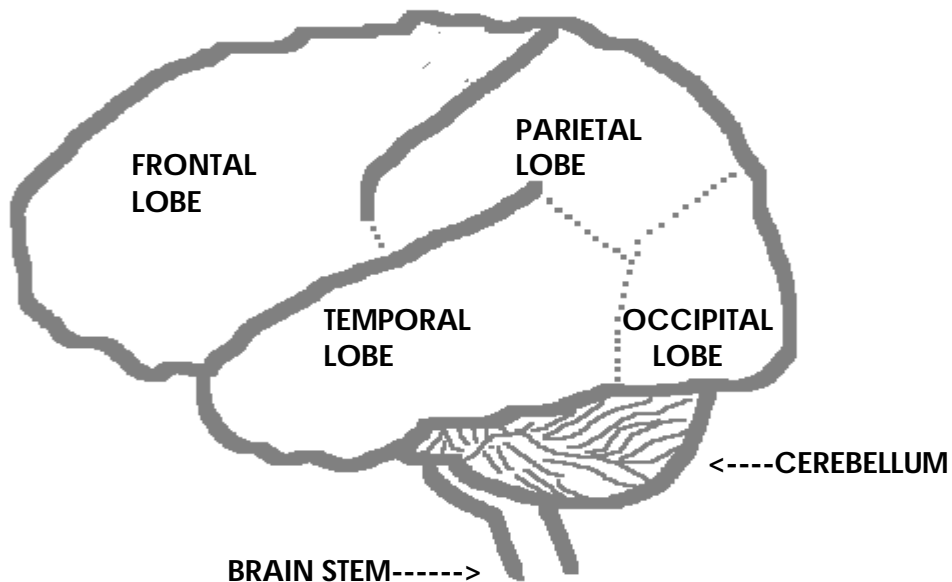
However there is more to a head injury besides physical injuries.

WHAT DOES THE BRAIN DO?

The brain controls our bodies, actions, and thoughts. The left-hand and right-hand halves of the brain each divide into **frontal**, **parietal**, **temporal**, and **occipital lobes**. Other major elements in the brain are the **CEREBELLUM**, and **BRAIN STEM**.



The main diagram below shows the brain from the left hand side (as illustrated above).



The **CEREBELLUM** controls co-ordination.

The **BRAIN STEM** controls “vital functions” - breathing, heart rate, body temperature, and alertness. The brain stem connects to the spinal cord which passes messages from brain to body, and from body to brain.

The **CEREBRAL CORTEX** is made up of 4 lobes (frontal, parietal, temporal, and occipital) on each side of the brain (making a total of 8 lobes). The cerebral cortex controls our higher mental processes.

The LEFT side of the cortex

controls speech, reading and writing, and also the **right** side of the body

The RIGHT side of the cortex

controls “practical” skills, drawing, musical appreciation and also the **left** side of the body

In addition, deep within the brain are **VARIOUS SYSTEMS**.

One important one is the limbic system - this helps control emotions, and also memory for recent events.

WHAT ARE THE EFFECTS OF HEAD INJURY?

Brain injury may result in changes in three areas:

a) Physical

b) Cognitive

c) Emotional/behavioural

- The main **physical** problems which may occur are problems of muscle strength and power, and poor co-ordination. Balance problems are also common. Epilepsy, where it arises, generally has to be controlled by medication
- The **cognitive** changes often include poorer memory, and reduced mental speed and concentration. Sometimes there are also language and communication difficulties.
- Changes in **emotion and behaviour** are very common after a head injury. Individuals differ, but emotional changes may include irritability, depressed mood, and lack of insight. These changes are sometimes referred to as a change in personality.

COGNITIVE CHANGES

MEMORY and other cognitive difficulties

Memories of long ago (“remote memory”) may be intact, but “recent memory” is often poor. This means that individuals may have difficulty learning new information, and may forget day-to-day events. This may take the form of forgetting to pass on messages, mislaying things, or forgetting when an event happened.

This is a list of some of common memory failures. It is similar to the kinds of thing we all forget, but after a head injury such memory lapses are more frequent.

THE MOST FREQUENT MEMORY FAILURES AFTER HEAD INJURY

Mislaying things
Forgetting that you were told something recently
Forgetting important details of recent activities
Forgetting what you have just said
Forgetting to pass on a message
Having to go back and check whether something has been done
Difficulty learning a new skill
Unable to follow the thread of a newspaper story

(Based on Sunderland et al (1984) Journal of Clinical Neuropsychology 6, 127-142)

It is important to remember that memories are usually “in there” somewhere and that **the problem is one of RETRIEVING the information.**

Being very well-organised with strategies such as **D.A.S.**, lists, and timers (as appropriate) can make a very big difference. By providing a **prompt**, such aids can greatly improve recall. Your case manager can advise you and provide you with training in the use of these strategies.

MENTAL SPEED and CONCENTRATION may also be problem areas. There is very often a problem in dealing with information quickly, and in keeping track of more than one thing at a time.

You have to make allowances for this and pace things accordingly to avoid overload and frustration.

Problems in **LANGUAGE and COMMUNICATION** are common too. They usually involve difficulty in remembering names of people or objects, or at the most complex level, difficulties in the finer points of understanding (e.g. missing the point of a joke or story).

Problems with names can be helped by keeping a Book of Names

EMOTIONAL AND BEHAVIOURAL CHANGES

Changes in emotion and behaviour are very common after a head injury. **IRRITABILITY** is one of the most common changes reported following a head injury. Individuals often report that they have a reduced capacity to control temper outbursts.

What is their behaviour like?

Individuals who have sustained a head injury, and their relatives often report the following pattern to behaviour:

- ❖ temper burning on a short fuse
- ❖ inability to shrug off minor annoyances
- ❖ low tolerance for frustration
- ❖ very occasionally, hitting out at others
- ❖ hitting out at things

Anger is a normal emotion but can be a problem if it occurs too frequently, is too intense, lasts too long, or leads to socially unacceptable behaviours. These sorts of behaviour are particularly difficult for relatives to cope with and are closely associated with the degree of stress in carers.

Why do they act this way?

The person who has sustained a head injury may be acting this way for a number of reasons:

- a) As a direct result of the injury, especially where there is damage to the frontal area of the brain
- b) It may be, at least in part, an expression of the person's frustration at their current limitations
- c) It might reflect an exaggeration of the person's former personality
- d) It might arise as a reaction to the environment the person lives in.

It must be remembered that the person who has had a head injury cannot always help it and therefore should not automatically be 'blamed' for their behaviour.

Suggested approaches for dealing with irritability and anger outbursts

1. There might often be particular things that provoke an individual's anger, known as 'triggers'. Try to recognise what these are and minimise them. For example, triggers might be:

- ✧ Fatigue
- ✧ Pain
- ✧ Failing at a task they were previously able to do
- ✧ Noise
- ✧ A task that's too demanding

If possible also try to identify the signals which lead to an impending outburst

2. It is helpful if there is a set structure or routine, which is followed. Events which might otherwise cause difficulties can be done if planned ahead and prepared for in advance.

3. It is important to ignore angry outbursts. Do not respond with aggressive or angry behaviour yourself. If possible try and distract the angry person's attention from the trigger and onto something more positive. If this is not possible either remove the person from the situation or leave the situation yourself (providing this does not place the person at risk).

4. Do not take their behaviour personally. The anger is largely as a result of the head injury, not you!

FURTHER EMOTIONAL AND BEHAVIOURAL CHANGES

Individuals differ, but emotional changes may include:

LACK OF INSIGHT: Changes in personality and/or abilities are sometimes not recognised or admitted by the person who has suffered the head injury.

UNDERCONTROL: Sometimes a head injury may cause a reduction in an individual's levels of tolerance. This results in temper burning on "a short fuse"; an inability to shrug off minor annoyances; and mood swings. This will often be a completely new characteristic, but occasionally it may reflect an exaggeration of a pre-injury trait.

APATHY: An individual may appear to have no motivation. 'Get up and go' is lacking and he (or she) may seem content enough to sit and do nothing at all. This can become very frustrating for the family. If regular activities can be found - e.g. day centre, voluntary organisations - to give some "structure" to the week, this may help.

TIREDFNESS: Tiring easily is one of the most common effects after head injury, and when tired, all difficulties (physical, cognitive, and emotional) are apt to come to the fore. Careful planning to try to avoid over-tiredness is therefore well worthwhile.

DEPRESSED MOOD: Many individuals have low mood from time to time but full-blown depressive illness is less common.

SOCIAL DIFFICULTIES: These are quite common after a head injury. Individuals with brain injury may withdraw from company, or may exhibit bad temper or tactless remarks in company. Some patients speak "out of turn" perhaps swearing, or boasting, or being cheeky and provocative. This sort of behaviour is sometimes referred to as "disinhibited" and is very difficult for families to cope with. It is embarrassing and may get the patient into trouble.

In spite of this, it is well worth trying to keep up at least some of your closest friendships, perhaps by asking friends to make allowances initially.

GUIDANCE FOR RELATIVES

STRESS ON THE FAMILY

It is widely recognised that the injury and its effects on memory, temper, etc place a great deal of stress on **relatives**.

They have to look after the injured person and may have to deal with temper and memory problems. They may have to take on additional responsibility for aspects of running the household. They may have to adjust to living with someone who is changed in many ways, sometimes to the extent of having had a "personality change".

THEREFORE - it's very important to

- * Keep up existing friendships outside the home

- * Keep up old interests or start new ones
 - so that there is some **relief** from the stress at home.

- * See if other family members or friends can take the patient out
 - regularly

- * See if the patient can go to a day centre
 - so that both patient and relative can have some independence.

Relatives **need** to re-charge **their** batteries to be able to help the patient with the process of recovery.

HOW MUCH IMPROVEMENT CAN BE EXPECTED?

The **old-fashioned** view is:

Patients continue to improve for 6 to 12 months, but rarely for much longer. Whatever they're like at the end of that time is how they'll remain long-term.

More **up-to-date** evidence suggests:

Further gradual progress is likely in those who are doing well by about 1 or 2 years after injury. Those who are doing less well (for example, are still not fit for work) are less likely to make further gains.

Both of the above statements are based on studies of patients who usually had little or no rehabilitation.

WE NOW KNOW THAT - THROUGH SPECIALISED REHABILITATION -VERY SIGNIFICANT AND WORTHWHILE IMPROVEMENTS CAN BE ACHIEVED FOR VERY MANY PATIENTS, EVEN LATE AFTER INJURY.

WHAT SPECIALISED REHABILITATION CAN YOU EXPECT?

Your hospital consultant or GP should be the first port of call. He or she should have available information on local sources of help.

The contacts **[LINK TO CONTACTS PAGE]** listed elsewhere on this website are other places where you can seek help/advice.

CMS Ltd provides community-based rehabilitation **[LINK TO COMMUNITY BASED REHAB]** as well as longer-term case managed packages of supported living in the community.