

### About the brain and what can happen after injury

This introductory factsheet gives and overview of how your brain works and how you may feel or react following a brain injury. We are all different and how you may feel won't be the same as other people, even if they have similar injuries to you.

#### A few facts about your brain

- Your brain is the most complex organ in your body and performs an incredible number of tasks to help you get through daily life.
- Your brain weighs about 3lbs or 1.5kg and is made up around 100 billion nerve cells and special support cells that provide nourishment to the nerve cells.
- It controls body temperature, blood pressure, heart rate and breathing.
- It accepts a flood of information about the world around you from your various senses (seeing, hearing, smelling, tasting and touching).
- It handles your physical movement when walking, talking, standing or sitting.
- It lets you think, dream, reason and experience emotions. Your brain is connected to the rest of
  your body through the brain stem which is like a communications highway to the spinal cord and
  on to the rest of your body. Messages pass backwards and forwards all the time to control your
  every move and help you get through daily life. Different areas of your brain control each of your
  everyday activities.

#### There are 3 main parts to the brain:

- The cerebrum fills up most of your skull. It is involved in remembering, problem solving, thinking, and feeling.
- The cerebellum sits at the back of your head, under the cerebrum and helps us control and coordinate our muscles so that we move smoothly and don't fall over.
- The brain stem sits beneath your cerebrum in front of your cerebellum and con trols many of the 'automatic' actions like breathing and heartbeat.

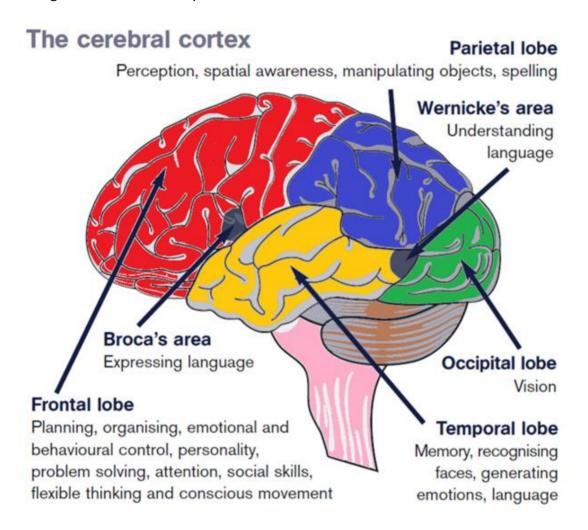
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Look at the diagram for an easier way to understand.



Most of the time when we are in good health we take our brain completely for granted. Healthy daily life helps our brain to work normally and most of time, we have nothing to worry about.







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#### After a brain injury

Sometimes we have accidents or injuries that alter the way our brain operates. Everybody is different, we will all react to trauma and injury in varying degrees depending on how severely we have been injured and what part of the brain is affected.

Most effects of brain injuries can be grouped into three main areas and each person can be affected by symptoms from each of the groups. These symptoms can be stressful and each of us will deal with them in a different way.

- **Physical** affecting how your body works
- Cognitive affecting how you think, learn and remember
- **Emotional and behavioural** affecting how you feel and act

As we mentioned earlier, each of us is unique, and the effects of any injuries and how long they last will be different for you compared to other people.

The different effects for each of the main areas and how you might be affected are given in more detail below. We are not trying to write a medical dictionary, we are however, trying to help you understand and come to terms with how your life may affected using simple terms and everyday language.

It is important for to remember that there is no need to feel angry or frustrated with yourself. Everybody, whether they have had a brain injury or not faces things in day to day life that are simply beyond their control.

### **Physical Effects**

Fatigue and tiredness. Most people with brain injuries (even mild injuries) can feel very tired. Simple tasks we take for granted, such as getting dressed or walking around may require a lot more effort. You don't have to do everything at once, just take each task one step at a time. It will also help if you allow yourself a rest or lie down during the day.

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**Mobility.** Getting around can sometimes become a bit of a chore after a brain injury. You may feel yourself becoming quite slow or feel unbalanced and need help getting around. Some people have described this as feeling like 'living in the slow lane'. Occasionally it might help you to use a wheelchair and other walking or mobility aids. Don't be put off by this as anything that helps you get around has to a good thing. Just because you sometimes need a bit of help doesn't mean you can't ever stand or walk on your own for short distances.

**Sensory impairment.** Your hearing, touch, smell, taste and eyesight can all be affected in different ways. For example, when you touch things the sensation you would normally feel may be reduced, exaggerated or even lost. You might not be able to taste or smell things as well as you did before your injury and it could take a while for you to improve. If your eyesight is affected, it may not be possible to correct with glasses. Sometimes it might be difficult for you to know where your arms and legs are without looking at them. If you find that you stand or walk in an odd way, it may be because your senses have been affected.

**Difficulties with speech**. Your speech can be affected in a lot of different ways and it may be difficult for those around to hear you clearly. Don't be too worried by this as people listening to you often learn to 'tune in' and you won't have to keep repeating yourself to make yourself understood. If you find yourself repeating things many times over without being able to stop, this is called **perseveration** and sometimes happens after a brain injury. The most important thing for you to remember is that you haven't lost your intelligence. Don't get upset as it is just your injury making it a little harder to get across what you want to say.

**Epilepsy.** Brain injuries can make you prone to epileptic seizures or 'fits'. Your medical team may prescribe drugs to control things and help reduce the chances of seizures or fits happening again. You may have to take the medication for quite some time. Also, the medication might make it harder for you to perform everyday tasks and feel more tired than normal.

If you do suffer from seizures or fits you may not be able to drive and it is important you contact the DVLA.

**Spasticity.** This is a medical term that means your arms and legs may be stiff or weak and you might not be able to move around as well as you did. You may feel some pain or discomfort and sometimes one

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side of your body may be affected more than the other depending on which side of your brain was injured. If this happens it is a good idea for you to get help from your GP who may prescribe medication to ease things.

Weakness or paralysis. If you are not feeling as strong as you did or can't move as well, you may need some help getting dressed and undressed and with your personal care in general. Weak muscles might affect how you go to the toilet and could certainly make you frustrated and upset. Don't get too down about this as there are there are lots of excellent incontinence aids to help you keep things under control.

**Ataxia.** This means that your movements are not as controlled as they were before your injury or sometimes you may have tremors that also make it hard for you to coordinate and control moving. This may mean that your hands shake and writing is harder than it was.

**Hormonal imbalances.** Your hormones are controlled by your hypothalamus or pituitary gland which are small structures at the base of your brain. Lots of things can happen that can affect your daily life if these are damaged. Other factsheets are available (on the Headway UK website) that explain things in more detail.

#### **Cognitive Effects**

**Problems with memory.** One of the first thing you may notice is that you may have difficulty in remembering things that have happened, even fairly recently. You might not be able to remember names or faces, what you have read, or what somebody has said to you. Your short-term memory is particularly likely to be affected and for a while you might not be able to learn things as quickly as before.

**Reduced initiation and problems with motivation**. In normal life we all need encouragement sometimes to start a job and get motivated. Your injury may make this a bit harder to get going on a job and people around you shouldn't mistake this for being lazy.

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Reduced concentration span. When you have managed to start a task, and even one you were keen to get stuck into you may find that you struggle to get to the end. There may be due to lots of reasons and could be a symptom of short-term memory loss described earlier.

Reduced information processing ability. You may take longer to think things through or work out what has been said. Occasionally it may all seem 'a bit too much' if you are overloaded with lots of information.

Reduced problem-solving ability. Unexpected problems happen to everybody, it might be that your injury makes it a little harder for you to work out what to do to make things right.

**Perseveration or repletion.** We explained in the paragraph about difficulties of speech that perseveration means that you may be unable to move on to another topic in the same conversation, or you may return to the same topic over and over again. You may also repeat the same physical action without being able to stop yourself and seem unable to break the cycle.

Impaired reasoning. We all have to think logically, follow conversations or understand rules. Your injury may make this more difficult and sometimes things may not make sense or you can't work out why you need to be doing something. You might find yourself very frustrated with this and start arguments because you couldn't grasp the full meaning of what other people are talking about.

Impaired insight and empathy. You may have difficulties in accurately understanding and interpreting your own and other people's behaviour and feelings. Putting yourself 'in someone else's shoes' is hard enough for most people but your injury could make it more of a challenge. You may not be able to think accurately about yourself and appreciate that other people may also have problems. We all try to set high standards and goals we want to achieve and we feel good about ourselves when we get there. Your injury may mean that you should set these goals a little lower than in the past so that you become frustrated or feel that you have failed. Every small step means you are making progress.

Language loss (aphasia). Most of us from time to time have difficulty in understanding something that was said, or read something that doesn't make sense. We also struggle sometimes to say the right words or write down what we really mean. You may find this takes longer following your injury and can

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be very frustrating, particularly when someone you are talking to doesn't understand you. Most people around will soon get to know this and things should become easier. Just because you can't say what you want as clearly as you could in the past does not mean that don't have a voice or want to be heard.

Impairments in visual-perceptual skills. How we see and recognise objects in the world around us, for example faces, shapes or pictures is different for all of us. This could change following your injury and you may find that you can't make out an object or recognise somebody you know; or perhaps get lost trying to find your way around a building you have visited in the past. Sometimes your injury makes your brain ignore something from one side of your vision or ignore one side of your body, we call this condition 'visual neglect'. Everyday tasks like shaving, putting on makeup or dressing might be more difficult and take longer than they once did. You may find this quite frustrating even if are able to communicate well and interact with other people.

Emotional and Behavioural Effects - Personality changes. We take for granted our personality and all the complicated parts that make us the person we are, and usually don't think too much about it. After your brain injury you may find that you feel and act differently. Some changes can be small and nobody really notices. However, occasionally, some changes can make you seem like a completely different person. Your family and friends will be the first to no tice this, after all they have known you for years, and it could take a while for you, and them, to adjust to how you are now. During the time you are all getting to know each other again it is very important for you to remember that you are still the same person you always were.

**Loss of confidence.** We all have setbacks or problems that affect our confidence and from time to time. A serious setback like your brain injury will mean you need lots of encouragement and reassurance to help you begin your recovery and feel better about yourself.

Emotional Lability. This is what most of us call 'mood swings'. Sometimes you won't know whether to laugh, cry or do both at the same time. Most of us feel like this but your injury may mean that it happens more often, one minute you are enjoying a joke and the next you feel like bursting into tears.

**Depression.** Don't be surprised if you feel down or depressed following your injury. The areas of your brain that control your emotions may have been damaged. As you learn about all of these effects and

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come to terms with how your life may change it can be upsetting. Remember, even the strongest people can feel bad occasionally.

**Sense of loss.** This goes hand in hand with any depression you might be feeling. Like anybody coming to terms with the loss of something they once had, you may feel a 'sense of loss' because some of the things about yourself that were important, or you took for granted, are not there or you can't do them anymore. Sadness, anger, guilt and confusion are common as you realise how your injury may have taken things away from you.

**Anxiety.** When a person suffers a brain injury like you, their life changes in a few seconds. As you begin your recovery the future may look very frightening and it is no sur prise that you could be anxious and worried. Help and support from family and friends is very important so that those anxious times don't make you feel frustrated or angry.

**Abusive or obscene language.** We may not like to admit it, but most of us let out the odd swear word when we are frustrated or angry, even when we don't mean to. Your injury and how your brain may be affected means that it is likely that you may swear more that you ever did, and sometimes you won't always be able to control when and where this happens. It might be embarrassing for your family and friends who may take a while to get used to this.

**Disinhibition.** This means that sometimes you might not be able to control how you act or behave when you are with other people. You may find yourself being over-familiar or saying things that are not appropriate or offensive. How you control your thoughts and not say what you think might be harder for you to do following your in jury.

**Impulsiveness.** Most of us like to think things through before we speak or do some thing. It makes us feel that we are in control. Your injury may mean that sometimes you say or do things quickly or impulsively without thinking through properly first.

**Obsessive behaviour.** We all make a fuss about things or like something to be in its regular place. Your injury may mean that you might be more obsessive about what is around you than you were before

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your injury. A good example of this is that you might keep on checking where your belongings are in case they get stolen.

We hope that this information has helped you to learn that your life after your brain injury will be different. Headway Nottingham are here to help and support you through these challenges.

Now you have read through this factsheet it is time to learn more about how to get over some of these difficulties.

Headway Nottingham have produced a series of 'Strategies for ...' factsheets.

- 1. Coping with Balance Problems
- 2. Coping with Communication
- 3. Coping with Memory
- 4. Coping with Depression
- 5. Coping with Difficulties Making Decisions
- 6. Coping with Executive Dysfunction
- 7. Coping with Lack of Insight
- 8. Coping with Fatigue
- 9. Coping with Mood Management

Every 90 seconds someone in the UK is admitted to hospital with an acquired brain injury.

Brain injury can happen to anyone at any time and Headway Nottingham is the only brain injury specific rehabilitation and support service available for people in Nottingham for as long as they need us.

To support our work, please visit <u>www.headwaynottingham.org.uk/donate</u> or contact us using the email address or telephone number below.

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