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PATIENT INFORMATION

Mild Traumatic Brain Injury and Concussion

Patient Information and Self-Management

Compiled by
Neuropsychology Service
Castle Circus Health Centre
Abbey Road
TORQUAY
Devon
TQ2 5YH
Tel: 01803 217726

Some text adapted from: Mittenberg, W., Zielinski, R. E. & Fichera, S. (1993) Recovery from Mild Head Injury: A Treatment Manual for Patients. *Psychotherapy in Private Practice,* 12, 37-52

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Dear Patient

You have been given this booklet because you are recovering from a concussion or mild traumatic brain injury (mTBI).

Research has shown that if people recovering from mTBIs know what to expect, they feel better and recover faster. This booklet includes information on what happens when an mTBI occurs, frequently reported symptoms and how to manage them, as well as other sources of information that may be of interest.

Most people fully recover from an mTBI in a week to three months, because any damage caused to the brain is minor. This recovery is helped by ensuring you get enough rest and resume your normal activities gradually. Until you feel you have fully recovered it is important to avoid driving, and also to avoid alcohol.

If you are still experiencing difficulties after six weeks, you should visit your GP to discuss a referral to the Community Neurorehabilitation Team (CNRT). The CNRT will discuss and agree with you what the next steps might be. The next step might include; recommending other local services, or other treatment options. If problems persist then you may be referred to either a Neurologist or the Neuropsychology Team, depending on your needs.

In any case, we hope that you will find this booklet useful as you begin your recovery from mTBI.

mTBI: what is it and what happens?

Mild head injuries that cause minor bruising, cuts or grazes are very common and don't necessarily cause damage to the brain. However, when the normal functioning of the brain is temporarily disrupted, a head injury can cause a mild brain injury (mTBI).

When your head is struck suddenly it causes something like a 'shockwave' to your brain. Such a blow may be caused by;

- A road traffic accident
- A fall
- A sports injury
- An assault
- Domestic violence
- Military service-related injuries

In all cases the brain continues to move even though the head has been brought to rest; like a jelly wobbling inside a ball. The injury may cause a loss of consciousness/alertness, or a loss of memory for events immediately before and/or, after the injury. A loss of consciousness or memory loss for events surrounding the injury may be brief. This can result in a general effect on the brain experienced as tiredness and headaches. However, there are several symptoms that can occur and will be discussed in more detail in the remainder of the booklet.

In most cases, the skull and the cerebrospinal fluid (CSF) protect the brain from damage. The CSF is a shock absorbing liquid that surrounds the brain within the skull. However, the force of the blow can cause bruising, swelling, damage to nerve fibres or blood vessels in the brain. The brain heals in a similar way to any other part of your body:

- Blood vessels and nerve fibres heal
- Bruises go away in time
- Swelling eventually reduces and your brain returns to its normal size

Most people who experience symptoms during the healing process recover completely.

How long will symptoms last?

As you might expect, this can be different for different people. In general, if you are under 40 you are likely to recover faster and experience fewer symptoms than those who are over 40. Older patients, or those who have been hospitalized with injuries to the head before, may take 6-12 months to recover from an mTBI. However:

Most patients are back to normal within 3 months

Getting enough rest in the weeks following your injury and resuming your normal activities gradually (not all in one go) will help you to recover faster.

Symptoms to expect and how to manage them

- The most common symptoms experienced following an mTBI are sometimes collectively referred to as post-concussion syndrome (PCS)
- 80% of people who have had an mTBI show some signs of PCS during the 3 months following their injury
- Symptoms are usually present in the first few days or weeks after the injury
- PCS is a normal part of the recovery process

PCS symptoms are almost identical to the symptoms of everyday stress. In fact, the injury itself, dealing with the effects, and trying to resume normal activities like work or study too quickly, adds a great deal of stress. Uncertainty and worry relating to your symptoms also increases stress, which is often mistaken for signs of a brain injury.

The table below shows the percentage of mTBI patients who experience each symptom at some point in their recovery and the percentage of people without an mTBI who experience each symptom.

Most Common Symptoms of mTBI Compared to Symptoms of Everyday Stress

Symptom	mTBI	Everyday Stress
Poor concentration	71%	14%
Irritability	66%	16%
Tired a lot more	64%	13%
Depression	63%	20%
Memory problems	59%	20%
Headaches	59%	13%
Anxiety	58%	24%
Trouble thinking	57%	6%
Dizziness	52%	7%
Blurry/double vision	45%	8%
Sensitivity to bright light	40%	14%

As you can see, these symptoms are common and are not a cause for concern, although they can be unpleasant.

Concentration

Problems with concentration are a normal part of the recovery process. Tiredness is the main cause of concentration problems and you will be able to concentrate better when you have had enough rest. You may find it particularly difficult to concentrate on more than one thing at first. The best thing to do if you are finding it difficult to concentrate is to take a break and relax for 15-30 minutes. To benefit your recovery, try to:

- Resist the urge to 'push through'
- Minimize distractions
- Avoid 'multi-tasking' and reduce time pressure

It is worth temporarily shortening your working day/daily routine if you continue to have problems.

Irritability

Most frequently, irritability is down to stress and fatigue. Everyone gets angry from time to time, and often for valid reasons. Irritability becomes a problem if it interferes with your ability to get along with people at home/work/leisure. Challenging the way you think about an irritating situation can be a useful way of staying calm and generating solutions. If you are irritated with someone, ask yourself:

- Why did the person do what they did?
- What could their reason be?

Try to think of several different ways to solve the problem and choose the best one. Recognising you have options to deal with the problem is likely to make the problem less irritating.

Fatigue

It is normal to be more tired after a concussion and is a sign you need to pace yourself. Triggers include:

- Working at a screen
- Paperwork
- Being in busy, or noisy environments

Try to recognize early signs of fatigue, try not to push yourself and take relaxation breaks when you need them (some people find planning relaxation breaks can help). Schedule more demanding activities for when you feel most alert (this may be the morning for some people). However, beware of 'boom and bust' patterns. If your symptoms get worse, this is likely to be a sign you are pushing yourself too hard.

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Depression and Anxiety

We become depressed when unpleasant things happen to us and an mTBI is unpleasant. However, we feel good when good things happen to us. Making a specific plan to do something each day that you enjoy can help overcome feelings of depression:

- Pick something you like doing and will look forward to
- Decide when you're going to do it each day and do it
- Stick to your plan every day

Thoughts can lead to, and maintain, feelings of depression. Try to notice if you are telling yourself things that might contribute to depression. Thinking that the situation is terrible, that there is no end in sight, that you are not able to do anything about it and that it is your fault are all depressing things to tell yourself. Unfortunately, such thoughts can become a habit that goes unchallenged. Try the following:

- Catch depressing or anxiety provoking thoughts
- Question whether what you're telling yourself is really true or whether it is reflecting how you feel right now?
- Try to 'edit' your thoughts

In a similar way, worries about symptoms or problems at work can make us feel anxious. Understanding that problems can be due to symptoms that are a normal part of recovery will hopefully help with this. However, these thoughts can become a preoccupation on which your mind might become focused. Catch these thoughts and consider the evidence. For example, imagine you have the thought "I feel so tired, this is just awful". This is a depressing thought. Now try and 'edit' the thought so that it becomes "I do feel tired, I know this is because of the concussion. It will get better slowly". The edited thought is more balanced, less extreme and kinder to yourself.

Memory Problems

Memory problems are often reported by people who have an mTBI. The part of the brain called the temporal lobe is most likely to be bruised in an injury to the head. The temporal lobe is very important for memory and, if you're unable to remember your accident, bruising to this area is the likely cause. However, remember that bruises heal and your memory will improve. If you can remember your accident, the chances are that no bruising occurred in your brain. Some of the symptoms you notice might not even be caused by your head injury.

The following table shows a list of common memory problems experienced by people who have *not* had an mTBI.

Normal memory lapses

"Symptom"	% of People
Forget phone numbers	58%
Forget people's names	48%
Forget where car was parked	32%
Lose car keys	31%
Forget groceries	28%
Forget why they entered a room	27%
Forget directions	24%
Forget appointment dates	20%
Forget store location in shopping centre	20%
Lose items around the house	17%
Lose wallet or pocket book	17%
Forget contents of daily conversations	17%

We are more prone to memory lapses when we are tired or pushing ourselves too hard. Memory trouble is also a normal side effect of concentration problems that were previously discussed.

Your memory is likely to perform better when you are getting enough rest

You can also use other ways to support your memory. External aids such as a diary, lists, wall planner, and mobile phone reminders can help improve your memory. Potentially helpful internal strategies include repeating information (using a person's name during your first conversation with them), errorless learning (to avoid remembering a wrong answer) and problem solving by retracing your steps.

Headaches

Headaches are a normal feature of recovery and can take several weeks to settle. They can be due to a number of causes including; bruising to the brain, stretching of neck muscles and supportive tissue, soft tissue injury to muscles or the scalp.

Headaches caused by bruising can relieved by simple pain killers such as paracetamol. However, long term use of analgesics can prolong the occurrence of headaches. Alternative treatments such as relaxation are likely to help relieve your headaches.

Returning to work

You may have concerns about going back to work after you mTBI, particularly if you are experiencing any of the difficulties described in this booklet. People face this in different ways; some wish to return to work as soon as possible while others wait longer. Being prepared can help:

Try to negotiate a phased return, perhaps starting with one morning or afternoon twice a week and gradually increasing to full time.

This will provide the opportunity to manage the emergence of any symptoms such as concentration problems or fatigue while you readjust to the demands of the workplace. If you need advice relating to your return to work, the Citizens Advice Bureau or a voluntary organization such as BASIC may be able to help (please see the section Other Sources of Information for contact details).

Relaxation

Relaxation is not simply about rest or being still. It is doing things that help to restore physical well-being.

Deep Breathing Exercise

1. Sit in a chair or lie down. Relax your body.

2. Place your hands on your stomach as described above.

3. Close your mouth

4. Now breathe in from your stomach for a count of 2. Hold for a count of 1.

5. Release slowly for a count of 2.

6. Repeat this process 10 times.

7. Notice your stomach falling and rising with each breath whilst the chest remains still.

8. Notice the cool air coming in through your nostrils as you breathe in and notice the warm air being pushed out when you exhale.

On The Spot Visualisation Technique

This technique is a powerful means of reducing anxiety and stress. The reason is your brain and body often can't tell the difference between what you're imagining and what is actually happening. With practice, the creation of a peaceful scene in your thoughts will soothe physical reactions to stress.

Whenever and wherever you feel stressed, under pressure or anxious; take a few minutes out, on the spot. You don't have to 'power on', or 'just get on with it'.

Instead, think of a place you felt relaxed and happy, calm and at peace. It could be holiday, or a special place, or a moment at home. Practice going into this scene and clearly picture what you can see; think about what you can hear, smell and how you feel. Let the image become vivid and don't worry if it seems to fade in and out.

When you feel tense, imagine yourself stepping into this place. Soak up the scene, feel the relaxation wash over you. This can be as brief as a few moments, as and when you need to. Picture yourself stepping back into the present moment and go on with what you were doing.

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Summary

Try to…	Try not to…
Remember symptoms are a normal part of the recovery process	Most people make a full recovery in 3 months, some people take longer. It does not mean that your brain damage is serious.
Slow down and let your brain heal	Push yourself too hard
Get enough rest	'Power on'
Catch and challenge unhelpful thoughts	Get into a habit of unconstructive thinking
Resume daily activities gradually	Do too much too soon
Practice relaxation	Become overwhelmed

Useful Contacts

Torbay Community Neuro Rehab Team
Web: **www.torbayandsouthdevon.nhs.uk/services/community-neurological-rehabilitation-team**
Tel: 01803 547157

South Devon and Teignbridge Community Neuro Rehab Team
Tel: 01626 324510

Other sources of information

www.citizensadvice.org.uk
Online free advice from Citizens Advice can help if you need advice relating to your return to work

www.basiccharity.org.uk
Since its inception in 1994, BASIC has been providing counselling, information and support services for patients and their families following a brain or spinal injury.

Concussion Coach
Concussion Coach is an App designed for American Veterans, Service members and other people who have symptoms that may be related to concussion. You may find some of the information, tools and recommendations useful.

Headway
Web: **https://www.headway.org.uk/about-brain-injury/individuals/types-of-brain-injury/minor-head-injury-and-concussion/**
A dedicated section of the Headway website explains the effects of a minor brain injury, which is also known as a mild traumatic brain injury, minor head injury, concussion or post-concussion syndrome.