

**Sleep and Fatigue Problems Following Traumatic
Brain Injury**

Patient Information Booklet



Talis Consulting Limited

What is Sleep?

Whilst you may feel rested after a good night's sleep, sleeping is actually an active process. Brain activity during certain parts of sleep is as intense as it is when you are awake.

There are many theories about why we need sleep and what function it serves. Some researchers believe that during sleep we consolidate memories, this means that we store away the new things we have learned during the day. Others think that during sleep we are repairing damaged brain structures. Some researchers believe that the brain just needs to rest for a few hours a day and sleep is merely a convenient way to do this.



No-one knows for sure what sleep is exactly for, and it could well serve multiple purposes; but we do know that sleep is a vital process that we cannot do without.

What kind of sleep problems are there?

Sleep problems are very common. Around 30% of the general population report having problems sleeping. Sleep problems also tend to develop naturally as we age. However it is also common following a brain injury. Around half of people who have had a brain injury report having problems with their sleeping patterns.

Sleep problems can be broadly classified into three categories:

- ***Insomnia:*** This is when you have difficulty falling or remaining asleep. It is usually occurs within the months directly after a brain injury.
- ***Hypersomnia:*** This is when you feel that you sleep too much. You may have trouble rising in the morning, or getting through the day without taking lengthy naps of over an hour. In contrast with insomnia, this is usually reported some time after a brain injury.
- ***Sleep Displacement:*** You probably have typical times that you go to bed and get up again. Sleep displacement happens when these times are altered. You may be getting the same amount of sleep, but it is at different times than you are used to.

What is Fatigue?

Fatigue is sometimes, but not always, related to sleep. It is usually taken to mean an extreme tiredness which can be mental or physical. It can make doing even the smallest of tasks difficult. You might also feel that when you feel fatigued you are unable to think clearly. Feelings of fatigue can strike suddenly and without warning.

High levels of fatigue can be caused by disturbed sleep, or a lack of sleep; however fatigue can also be a problem in its own right and does not necessarily have to be related to your levels of sleep.



Why can a Head Injury Cause Problems with Sleep or Fatigue?



Sleep is a very complex process, and requires the use of many brain areas. This means that it is unfortunately quite likely that a head injury will affect one of these brain areas that are responsible for sleep.

Sleep problems immediately following a brain injury may arise from an upset to your hormones or neurotransmitters (chemicals which are used to communicate between brain cells). This means that the different areas of your brain find it hard to co-ordinate themselves and abnormal sleep is experienced.

Problems sleeping may also be due to actual damage to the areas of the brain responsible for sleep. Sleep problems which are caused in this way are usually more long-lasting and difficult to overcome.

Sleep problems may also be related to any medication you are taking. Some medicines may cause you to feel drowsy, whilst others can make you unable to fall asleep. If you do suspect that your medication is causing your sleep problems, it is important that you do not stop taking your medication. Seek advice from your doctor about what can be done to help.

Finally, sleep problems may be related to other disorders you have developed following your brain injury. For example some people experience depression following a brain injury, and one of the symptoms of depression is feeling tired and in need of sleep. It is important that if this is the case, then the underlying problem (e.g. depression) is tackled.

Why is fatigue sometimes experienced following a brain injury?

Fatigue might be experienced because you are having problems sleeping, or can be related to some of the things that cause poor sleep (such as some medications or having an underlying condition such as depression).

However fatigue might also be caused because of the extra work the brain is having to do. You might find certain tasks difficult following your brain injury, and having to put in that extra bit of effort into the tasks each time is tiring.

It might also be the case that your brain is still healing. During the healing process the brain is very active and this means that it is working hard. This might cause you to feel tired much of the time because of the increased brain activity.



When Should I ask for Help with my Fatigue?

The problem with experiencing fatigue is that it is a very subjective experience. This means that there are no obvious outward signs that something is wrong, and the only way others know you are feeling fatigued is when you tell them.

This may lead you to worry that others might accuse you of being lazy and not having an actual problem. This is not the case, as feelings of fatigue are not at all unusual following a brain injury, and tiredness can be caused by brain problems.

However it is also true that almost everyone experiences fatigue at certain times during the day, whether they have had a brain injury or not. This means that it can be hard to know when fatigue is becoming a problem, and when it is simply the case that you are feeling a bit run-down.

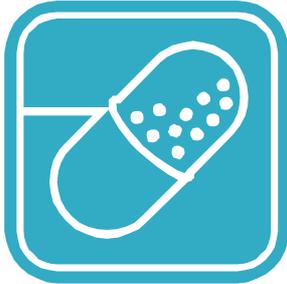
However you should seek advice and talk with your health care provider if:

- You are too tired to get out of bed during the day
- Your fatigue is getting worse
- You have cut back on doing things you love to do
- You are not sleeping well at night
- Your fatigue seems to be related to your emotions or pain
- Your thinking is often affected by fatigue
- You are having trouble taking care of yourself or your family



What Treatments are Available for Sleep and Fatigue Problems?

A common treatment for sleep and fatigue problems is to administer medications. If you are experiencing insomnia then some form of tranquiliser is often prescribed. These dampen down the activity of the brain and will hopefully allow you to fall asleep.



Melatonin is a sleep hormone and is often used by those suffering from insomnia or jet-lag. Taking melatonin artificially tricks your brain into believing that it is time for sleep.

However melatonin is not regulated by the government and so taking the correct doses is difficult. It can also cause vascular constriction (narrowing of the blood vessels) and therefore it should be avoided if you have any heart or blood-pressure problems.

If you are experiencing hypersomnia (too much sleep) or fatigue then other medicines can be used. These may release additional neurotransmitters (the chemicals used for communication between the brain cells) into the brain, which can help to activate certain brain areas.

The use of stimulants such as caffeine can also help, but it is important not to rely too much on these and to seek advice if you find yourself unable to get through the day without them.

General Tips if you are Prescribed Medication

It is important to bear in mind that all medication has side-effects, but most medications are tolerated perfectly well without any problems. If you do become worried about any side effects then make sure you consult your doctor.

Also, if you are taking medication then:

- Never stop taking the medication without consulting your doctor
- Always read and follow the instructions that come with medication carefully, and if you are confused then ask your pharmacist for advice.
- If your medication makes you feel drowsy then do not drive or operate machinery
- Always consult your doctor if you are pregnant or intending to become pregnant, as some medication requires special monitoring during pregnancy.



What else can be done to Help?

There are a number of basic changes that you can make to your lifestyle which will enable you to improve the quality of your sleep and reduce fatigue. You may want to use some or all of these techniques, depending on what specific problems you are having with sleep or fatigue.

Keep mealtimes balanced

Good nutrition is important for adequate sleep and keeping energy levels up during the day. Make sure you have three balanced meals a day, and try to keep the timing of these meals consistent.



Take a suitable amount of exercise

Taking exercise can use up any excess energy that you may have. It is also often a good way to relax and calm your mind. However remember that an adequate amount of rest is as important as exercise, don't do too much exercise in the late afternoon. During these hours it's a much better idea to relax and partake in gentle activities which you enjoy.

Schedule in daytime rest

You might feel during the day that you have to nap for a bit. This is perfectly natural and many people do nap during the day. You might find that taking a nap is a very effective and natural way to restore your energy levels, however if you feel unable to sleep then simply having a period of daily 'rest-time' can be very beneficial. Early afternoon is a good time to schedule in a daily rest-time or a nap. However it is important that you limit any nap you take to no more than an hour or so, otherwise it may interfere with your night-time sleeping patterns.



Keep a regular schedule when going to bed and getting up

Try to keep the times when you go to bed and when you rise consistent. This may be difficult at first, but hopefully soon you will settle into a regular routine which should make your day easier.

If you cannot fall asleep, then get up and remain awake

If you find yourself simply unable to drift off, then it is sometimes better to accept that you are unable to sleep and get up. Once you are up remain awake until you feel ready to go back to bed. Trying to force yourself to sleep will only make you more stressed and this will just make it even harder to get to sleep.

What else can be done to Help? (Continued)

Plan around your fatigue levels

You may find that your levels of fatigue fluctuate during the day. Most people report feeling at their best during the mid-morning. Discover those hours in which you are most alert and get all the hard or complicated tasks for the day done during that time.

Do not take any coffee, fizzy drinks or alcohol before going to bed

Coffee, fizzy drinks and alcohol will all disrupt the quality of your sleep or make it harder to fall asleep in the first place. Try to avoid taking them before you go to sleep, and preferably cut them out altogether.



Make sure that there are no bright lights or noises in the bedroom

It might sound obvious, but it could be that noises and lights you tolerated perfectly well before your head injury are now keeping you awake. Have a think about whether this is the case, and if it is, then make sure you remove anything in your room which might be disturbing your sleep.

Limit the amount of stress in your life



Stress will make it much harder to fall asleep, and can cause feelings of fatigue throughout the day. Try to limit the stress you are under by taking regular breaks and learning to say 'no' to requests you don't feel able to do. It is also a good idea to make sure you do at least one thing per day which you enjoy.

It is important that you keep in mind that problems with sleep and fatigue are not unusual following a brain injury. These problems almost always improve as your brain heals, although they may not go away completely. You will still, however, be able to do many of the things that you did before your injury, but they may have to be done at different times of the day, or in different ways.

Useful Websites:

www.headway.org.uk

- A useful web site with much information about brain injury and rehabilitation in the UK.

www.birt.co.uk

- Another useful web site concerning brain injury, with downloadable leaflets about brain injury and its implications.

http://depts.washington.edu/uwtbi/Education/Patient_ed_brochures/Fatigue_Brain_Injury_11_08.pdf

- A handout specifically about the problems faced with fatigue following a brain injury

<http://subtlebraininjury.com/sleep.html>

- Information concerning sleep problems following a brain injury. Some discussion on drug therapies and returning to work.

