

Canterbury

District Health Board

Te Pōari Hauora o Waitaha

RECOVERING FROM A CONCUSSION

An Information Guide



Brain Injury Rehabilitation Service
Concussion Clinic
Burwood Hospital

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RECOVERING FROM A CONCUSSION

What happens in a Concussion?

You have experienced an injury to your brain, that has caused you to be “concussed”. A concussion is a type of traumatic brain injury that is caused by a blow to the head or body, a fall, or another injury that jars or shakes the brain inside the skull. It usually takes a little while for the brain to recover from a concussion but in most cases there are no lasting symptoms or ill effects. This is because the brain is surrounded by shock absorbing liquid and covered by the skull. Often these are enough to protect the brain from damage.

Sometimes the force of impact is more severe. This can cause the skull to break or fracture. When the skull fractures this absorbs some of the force of the blow and protects the brain.

When the head is hit the brain may be shaken around inside the skull. This can cause the brain to get bruised if it hits the inside of the skull hard enough. Like a black or blue mark on your arm or leg this will recover with time. If there are many bruises on the brain there could be some swelling so recovery may be slower.

Most people who suffer a concussion recover completely in time because the damage is minor and heals.



MEASURING CONCUSSION SEVERITY

Loss of Consciousness

One way to tell if a brain injury is serious is the amount of time the person is unconscious afterwards. If you weren't knocked out at all, or if you were unconscious for less than half an hour, then the injury was most likely in the mild range. This means that although you may have some symptoms, there was probably little injury to the brain and complete recovery is expected. Most people who have a brain injury fall into this category.

Post-traumatic Amnesia

Another way of measuring the severity of brain injury is the length of post-traumatic amnesia (PTA). PTA is a period of memory blank around and after the injury when a person may appear conscious but is confused and disoriented and day to day memory is unreliable. With a concussion this period is usually no longer than one day.

HOW LONG WILL THE SYMPTOMS LAST?

With a concussion the most rapid recovery occurs in the first 1-3 months and most people are back to normal by 6 months.

If you still have a few symptoms after 6 months, these will most likely disappear altogether or be greatly improved within a year after the injury.

Most people who treat brain injuries agree that recovery is faster when the person with the injury gets enough rest during the first few days. Work, exercise, social activities and family responsibilities should be started gradually, not all at once.

What symptoms can I expect?

Symptoms after a concussion are often called post concussion symptoms. Eight out of 10 people with a concussion show some post concussion symptoms during the first 3 months after the injury. These symptoms are part of the normal recovery process and are not signs of brain damage or medical complications. Like the itch of healing stitches, these symptoms are expected as you get better. They are not a cause for concern or worry.

A list of symptoms that you can expect is shown in **Table 1**, along with the percent of people with brain injuries who experience each symptom at some point in their recovery. Few people will experience all of the symptoms but even one or two can be unpleasant.

Table 1: Symptoms of post concussion syndrome

Symptom	Percent of People
Reduced concentration	71%
Irritability	66%
Tiredness	64%
Low mood	63%
Memory problems	59%
Headaches	59%
Anxiety	58%
Trouble thinking	57%
Dizziness	52%
Blurred or double vision	45%
Sensitivity to bright light	40%

THINGS THAT CAN COMPLICATE RECOVERY AFTER A CONCUSSION

It is important to remember that these symptoms are a normal part of recovery and will usually go away on their own. Of course, we all have some of these symptoms once in a while anyway. After a concussion it can be easy to forget that we were sometimes irritable, tired, had headaches, couldn't concentrate, or forgot things even before the accident. Try to deal with these things the same way you did before.

Some of the symptoms you notice may actually have nothing to do with your concussion. The symptoms after a concussion can be similar to the symptoms of ordinary day to day stress. A list of everyday stress symptoms is shown in **Table 2**, along with the percentage of people who experience each symptom even though they have not had a concussion.

Table 2: Symptoms of everyday stress symptoms in people who have never had a concussion

Symptom	Percent of People
Reduced concentration	14%
Irritability	16%
Tiredness	13%
Low mood	20%
Memory problems	20%
Headaches	13%
Anxiety	24%
Trouble thinking	6%
Dizziness	7%
Blurred or double vision	8%
Sensitivity to bright light	14%

The reason symptoms after a concussion are like the normal signs of daily stress is that one main cause of these symptoms is exactly the same: everyday stress. But having a concussion adds more stress to your life, not just bumps and bruises to your head.

The accident itself, being in hospital, and going back to work or school are all things that add stress to most people's lives. Bills can pile up, time is lost, and there may be injuries to other parts of your body. And just like a pulled muscle or a bruised leg, your brain takes some time to recover.

Some of these symptoms and stresses can interact and create more persisting problems after a concussion as **Figure 1** shows.

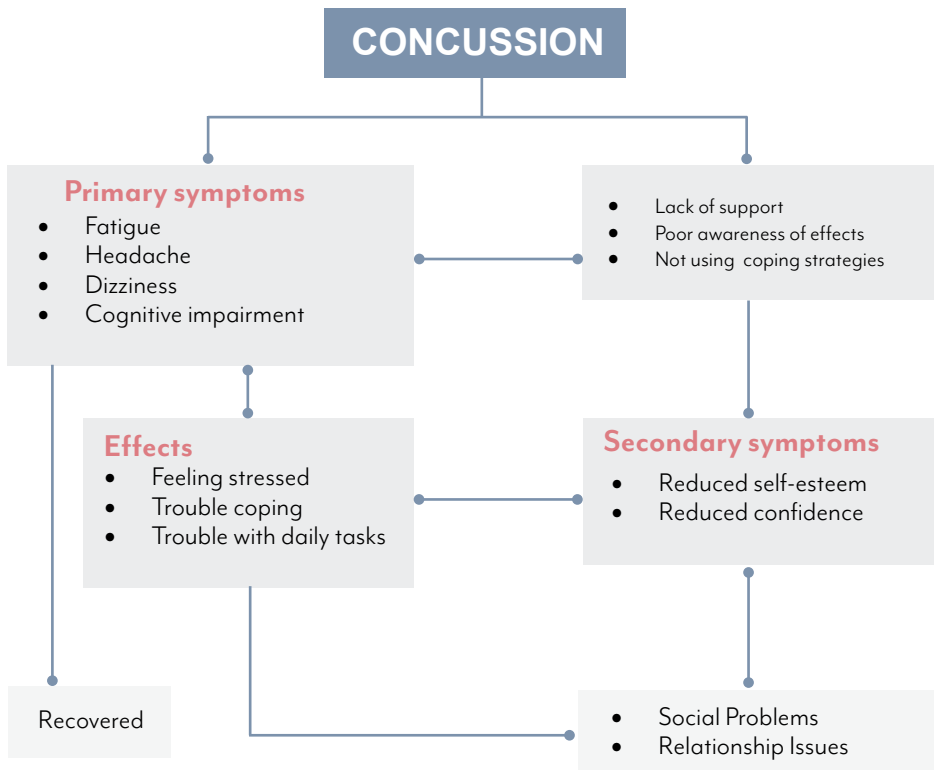


Figure 1 shows a recovery pathway on the left hand side, and on the right how the combination of primary and secondary symptoms can sometimes result in persisting problems after a concussion.

WHAT CAN I DO ABOUT MY CONCUSSION SYMPTOMS

The best way to recover is to resume activities and responsibilities gradually, a little at a time. The time you spend at work, getting together socially, with your family, or exercising is determined by what you are comfortable with. You should pace yourself, and be sure to get all the rest you need. If your symptoms get worse, or if you notice new post concussion symptoms, this is a sign that you are pushing yourself too hard.

Sometimes it is hard to get the balance right between activity and rest. Just as doing too much is not helpful in the early weeks after a concussion, so too is not doing enough and resting too much. Talking to your doctor or a Concussion Clinician can help if you are having difficulty getting this balance right for you.

Studies have shown that having information about the nature of concussion and learning some ways to deal with the symptoms can be helpful in reducing longer term problems.

If you don't think you are recovering well it is important to seek medical advice about this. Your doctor might refer you to a Concussion Clinic for support and treatment or may think medication could help you manage some of your symptoms.

Information about managing specific symptoms follows in the next section.



MORE ABOUT THE SPECIFIC SYMPTOMS

Poor concentration

The main cause of poor concentration is tiredness and no one can concentrate well when they are tired.

When it becomes difficult to concentrate on what you are doing take a break and relax. Between 15 and 30 minutes should be enough. If you continue to have problems, your work day, class schedule, or daily routine should be temporarily shortened. Trying to “stick to it” won’t help and usually makes things worse.

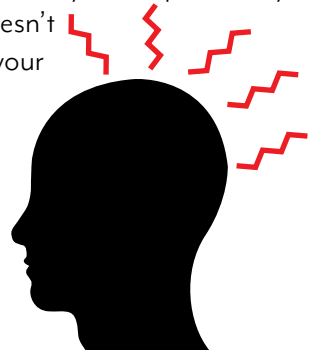
Other things that might help:

- Reduce distractions.
- Turn down the radio or try to work where it’s quiet.
- Avoid trying to do too many things at once. Writing while you talk on the phone or taking notes as you listen to someone talk are examples of doing two things at the same time.
- You will be able to concentrate better when you have had enough rest.

Irritability

Some people who have been concussed find they get annoyed or upset easily by things that wouldn’t normally upset them. This doesn’t last long generally, but can cause stress for you and your family.

One of the most frequent causes of irritability or grumpiness is tiredness. People lose their tempers more easily when they are tired or overworked. Adjust your schedule and get more rest if you notice yourself becoming irritable.

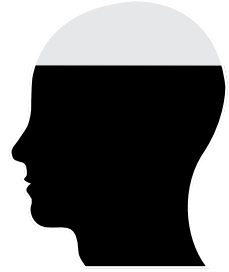


Others things that might help:

- Take time away or a break from what’s annoying you.
- Try relaxation techniques or meditation.
- Go for a walk or get into some other form of light physical activity.
- Irritability will be worse when you are tired, so rest will help.

Fatigue

It is normal to be more tired after a concussion. Fatigue that accompanies concussion causes mental (cognitive and emotional) and physical tiredness. Even a little effort may make you very tired at the beginning. Once energy levels are used up it can take longer to recharge after concussion. Careful management strategies are required, particularly when planning to return to work.



The only sensible treatment for being tired is rest. Avoid wearing yourself out. Expect that tasks will take you longer to complete. Gradually increase your activity level. Most people have more energy in the morning than later in the day. You may benefit from scheduled rest breaks or a daytime sleep. If your symptoms get worse this means that you are pushing yourself too hard.

Other things that might help:

- Learn to recognise when you are tired.
- Have a rest in a quiet distraction free place (e.g. rest on your bed with the curtains pulled, no TV or music on in the background).
- Pace yourself, don't rush. Before you start an activity think if you will have enough energy to finish it.
- Get away from the situation, for example, go for a slow paced walk (light pace, no gradient, even terrain).
- Make sure you have blanks in your diary and don't fill them.
- Your occupational therapist is able to assist with planning your approach to manage your fatigue.

Forgetfulness and Trouble Thinking

While recovering from a concussion you cannot expect your brain to be as good at remembering things and thinking clearly. For you to remember something, you have to pay attention to it first. Concentration problems are a normal part of recovering from a concussion and some memory trouble is a normal side effect. Trouble thinking is often a side effect of other symptoms. Concentration problems, being tired, headaches, and anxiety can all make it hard to think clearly. Like these other symptoms, trouble thinking is probably a sign that you are doing too much too soon.

Things that might help:

- You will probably be able to think and remember better when you get enough rest. Memory and concentration problems can be a sign that you are pushing yourself too hard.
- Writing things down, using your phone or pocket tape recorder or diary are excellent ways of coping with temporary memory difficulties.
- Get away from the situation e.g. go for a slow paced walk (light pace, no gradient, even terrain).
- Have a rest in a quiet distraction free place (e.g. rest on your bed with the curtains pulled, limit screen time such as TV and other devices, or no music on in the background).

Headaches

Headaches are part of the normal recovery process, but that doesn't make them any less bothersome. Headaches are another cause of irritability and concentration problems after a concussion.

One of the most common causes of headaches after a concussion is stress or tension. This is usually the cause when the headaches start for the first time several weeks after the injury. These headaches mean that you are trying to do too much. They will probably disappear if you take a break and relax. Your work day, or daily routine should be temporarily shortened if you continue to have headaches.



If your headache gets worse, is associated with nausea or vomiting, or cannot be relieved, see your doctor.

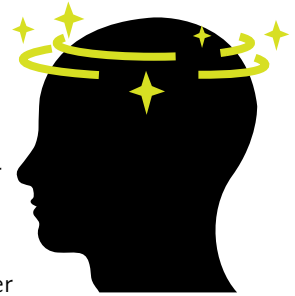
Other things that might help:

- Get away from the situation e.g. go for a slow paced walk (light pace, no gradient, even terrain).
- Have a rest in a quiet distraction free place (e.g. rest on your bed with the curtains pulled, limit TV and use of other devices, or no music on in the background).
- If you are experiencing neck pain following your accident, this may also cause headaches. If you suspect this is a possibility, see your doctor or a physiotherapist.

Dizziness and balance issues

Occasionally people find they feel dizzy or experience changes in their balance following a concussion. This can occur particularly when moving or changing position quickly. Usually this is only a problem for a few days, but if these symptoms persist for more than a week or two, see your doctor.

If you find these symptoms troublesome, your doctor may prescribe medication for motion sickness to help reduce your feelings of dizziness. These can be very effective, however can make you drowsy or reduce your attention span as side effects.

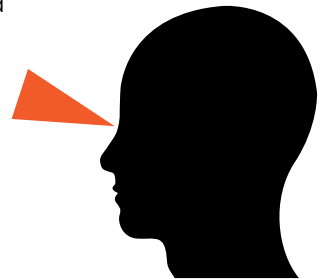


These symptoms usually resolve by themselves, however if they persist for longer than a few weeks, your doctor may refer you to see a physiotherapist, who may be able to help with your dizziness and/or balance issues.

Visual Difficulties, and Light Sensitivity

You may also notice some changes in your vision following a concussion. Again, this often resolves with time however you should see your doctor if this persists. Your doctor may refer you to a physiotherapist or a vision/eye specialist for further assessment, depending on the type of issues you are experiencing.

You may notice some increased sensitivity to bright light or loud noise, particularly if you have headaches. Some increased sensitivity is normal after a concussion and paying attention to these symptoms seems to magnify them. The less you think and worry about your symptoms, the faster they will usually go away. Wearing dark glasses can help you in the early stages of your recovery, however try to reduce the time that you wear these gradually so you do not become accustomed to them.



Sleep

It is not uncommon to sleep more or less after a concussion. Some also find it difficult to fall asleep or stay asleep. Not sleeping well can worsen symptoms resulting from concussion including cognition (thinking), mood changes, anxiety, fatigue and irritability. Nightmares can also sometimes be problematic following a concussion. Feelings of anxiety and sadness can also contribute to poor sleep. Your doctor, Occupational Therapist or Psychologist will be able to give you advice to best manage sleep disturbance.

Other things that might help:

- Avoid several day time naps during the day or sleeping late in the afternoon.
- Create a restful atmosphere free from noise and distractions.
- Avoid caffeine, nicotine, alcohol and sugar before bedtime.
- Go to bed at the same time and wake at the same time to keep in routine. Set an alarm if you need to.
- If you are waking up in pain ensure you take prescribed medications.
- Expose yourself to natural sunlight during the day to assist with the body's release of melatonin, the 'sleep chemical'.
- For some people thoughts/worries 'play' on their mind when they are trying to get to sleep or when they wake in the middle of the night. Using a notebook or diary to write them down can help, make a plan to deal with them in the morning.



THINGS NOT TO DO AFTER A CONCUSSION

DO NOT stay in bed until you feel better. You do need sleep and rest but you also need to give your brain enough to do to help it to recover. Resting up for most of the first 1-3 days following your injury is helpful (just like if you have the 'flu). But staying in bed any longer than this has been shown to make post-concussion symptoms worse.

DO NOT drink alcohol or use drugs. Do not expect your brain to deal with alcohol and drugs in the same way as usual for you. Using these substances can definitely make you feel worse and will not help you to recover.

DO NOT drive your car or ride your motorbike until you have made sure that concentration is good, that you can react quickly enough to handle unexpected traffic hazards, that you are not still dizzy and that your ability to judge distances is back to normal.

If you have any concerns about driving you can discuss these with your Doctor or Concussion Clinic team who can advise you.

DO NOT play sport. Don't put yourself in a position where you might get another concussion before you have recovered. This means avoiding activities like horse riding, mountain biking, football, rugby, skateboarding and other contact sports with risks for body clashes and concussions, until you are better.

There are guidelines available about returning to sports after concussion so please ask your doctor or Concussion Clinic team if you are unsure.

NOTES

ABOUT THIS GUIDE

This guide was provided by the Concussion Clinic
at Burwood Hospital.

The information presented here is based on published scientific
research and clinical studies. If you have any questions, comments,
or would like more information, contact the Concussion Clinic at
Burwood Hospital on 03 383 6828.
