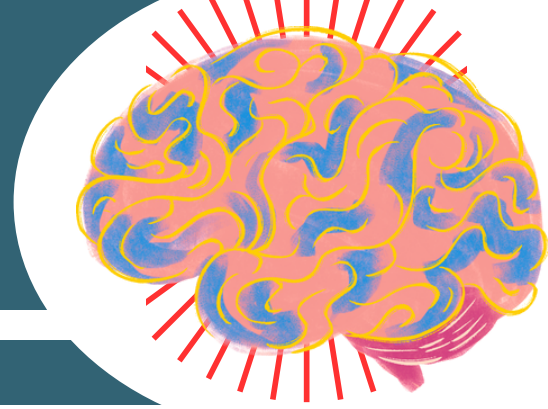


Concussion Information

For family, friends & the community



WHAT IS CONCUSSION?

Concussion is a brain injury that interferes with normal brain function. It is caused by a knock to the head, or a knock to anywhere on the body where the force is transmitted to the head. Concussion is a disruption to the neuronal network in the brain. There is no structural damage visible on imaging such as CT or MRI. Instead, it is the connections between nerves which are disrupted. This disruption heals gradually with time as the brain reforms those connections.

All concussions are serious. A person can be concussed with or without loss of consciousness. Some concussions present with mild, difficult to recognise symptoms. Even a minor blow can cause concussion. If you have had previous concussions, it is common that subsequent concussions can occur more easily (with less force) and present with more severe symptoms.

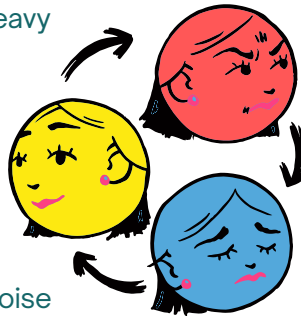
SYMPTOMS

Symptoms may present immediately or develop over hours and day following the injury. Symptoms typically increase with activity and reduce with rest. Concussion can cause physical, cognitive and emotional symptoms.



Physical

- Headache or feeling “heavy in the head”
- Neck pain
- Nausea or vomiting
- Dizziness, balance problems
- Blurred Vision
- Sensitivity to light and noise
- Feeling “not right”



Emotional

- More emotional, irritable, sad, or anxious

Cognitive

- Confusion
- Fatigue, drowsiness and difficulty sleeping
- Difficulty concentrating and remembering

FIRST 24-48 HOURS

Rest from school, work and deliberate cognitive activity is recommended for the first 24-48 hours after a concussion injury. Complete rest in a dark, quiet room for 24 hours is no longer advised. Instead, relative rest or symptom-limited activity is recommended. This means reducing activity to a level that does not increase symptoms. Remember that thinking, physical activity and conversing with people are exercise for the brain and may increase your symptoms.

See a GP or Physiotherapist within 3-4 days of the concussion. They will assess the concussion and help determine when it is safe to return to school and sport.

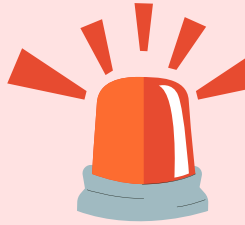
24-48HR CHECKLIST

- Remain in the company of a responsible adult
- No driving
- No alcohol or energy drinks
- Limit screen time (including phones, TV, computers)
- Check medication with your doctor. Avoid aspirin, anti-inflammatories or sleeping medication
- Paracetamol is safe to manage headaches and neck pain
- Book in to see a Doctor or Physiotherapist within 3-4 days of the concussion

GO TO EMERGENCY

If any of the following occur go to the emergency department:

- Increasing confusion, agitation, or irritability
- Repeated vomiting
- Seizure or convulsion
- Weakness or tingling/burning in the arms or legs
- Deteriorating conscious state
- Severe or increasing headache
- Severe and increasing neck pain
- Unusual behavioural change or double vision



48HRS AND BEYOND

Following a period of 24 – 48 hours relative rest after sustaining a concussion, you can begin light physical activity - as long as the activity does not worsen symptoms. A mild increase in symptoms, less than 2/10, for less than 1 hour is okay. This symptom limit is relevant throughout your whole rehab, even when you are 95% better.

A MILD INCREASE IN SYMPTOMS, LESS THAN 2/10, FOR NO MORE THAN 1 HOUR



If your symptoms increase, reduce your activity until the symptoms settle again. Initially this may require a nap but as you improve, resting your brain will be enough. For example, walking away from noisy conversations and finding quiet time.

The brain will heal itself with time and rest. Pushing through symptoms in an effort to return to sport, work and school faster does not help and usually slows the recovery. The rate of recovery is different for everyone and is very hard to predict. Complete recovery is worth being patient for, particularly for your long-term health.

Things that you may find aggravating include:

- Problem solving
- Multi-tasking
- Emotional and stressful situations
- Noisy or busy conversations, such as parties
- Bright or flashing lights, including driving at night
- Long days without rest

CONCUSSION REHABILITATION

In some cases, symptoms can be slow to resolve and specialised cervicovestibular rehabilitation is needed. Our physiotherapists help monitor recovery and provide this rehabilitation early as indicated. If you are not being monitored by a physio, please note that additional rehab is highly recommended when:

- Headaches and dizziness persist for more than 10 days
- Symptoms generally persist for more than 4 weeks



MENTAL HEALTH

Don't be surprised if you find it quite hard emotionally and mentally while you have your concussion. Not only is it a symptom of your concussion, but it is also made worse with the time away from activities you love. We fill our lives with things that keep us happy, and you might find that lots of them are suddenly taken away from you.

A couple tips that may help:

- Know that it is not a sign of weakness, it is very normal
- Try to find other enjoyable things that you can add into your life temporarily
- Keep yourself healthy in other ways, like eating well and doing the exercise your concussion does allow
- Let your close people in and let them help - don't feel you have to do it on your own
- Seek professional help

RETURN TO SCHOOL

Children can gradually return to school as their symptoms allow, following the same 2/10 symptom limit. Parents and teachers need to work together to assist students to gradually return to school. This can be done under the guidance of a health care professional who will develop and communicate a return to learn plan.

Children who are returning to activity and school after a concussion may need to:

- Begin with school work at home
- Take rest breaks when symptoms increase
- Spend fewer hours at school
- Be given more time to complete tasks
- Receive additional assistance
- Have a quiet space to work and rest
- Reduce screen time
- Have exams postponed.



Children who have learning difficulties, or mental health illness will need additional care and rehabilitation from health care professionals.

RETURN TO SPORT



Note that return to learn must be achieved before return to competitive sport is allowed.

The Australian Institute of Sport recently released guidelines for youth and adolescents on return to sport. These guidelines aim for a consistent, clear approach to concussion treatment based on our improved understanding of concussion.

See www.concussioninsport.gov.au for more information.

Athletes playing community or school sport must have a **minimum of 21 days off sport**, where day of injury is day 0, and day 21 is the earliest possible return to competition. There must also be a **minimum of 14 days symptom free** with a graded increase in activity, guided by the 2/10 symptom limit.



After these 14 days symptom free, athletes can seek clearance from a health professional for return to contact training. Once full contact training and game simulation have been completed, the athlete can return to competition. Note that elite athletes have a greater level of care available to them, so have a different minimum number of days off. Their return is guided by the same symptom limit and closely monitored by health professionals.

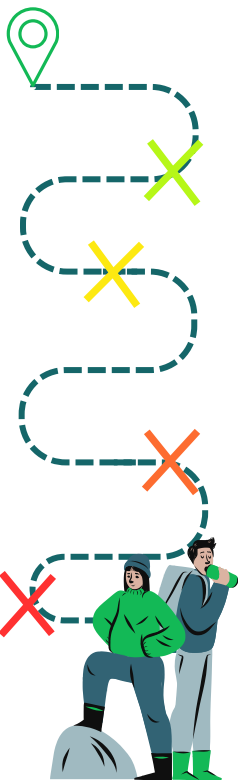
Forcing an early return to sport is like returning too quickly after a hamstring tear or ACL repair. The risk of injury and ongoing symptoms is high. So, be patient and think about the long-term rewards.

EXAMPLE

This example describes the **minimum** time away from competition. This is not true for every athlete but is provided to help explain the counting of the days. This athlete completed return to school throughout the symptom free days (yellow) and gradually increased their activity within the symptom limit. They gained clearance from a health professional to begin contact training at the end of their 14 symptom free days and were then ready to return to comp on day 21, the minimum number of days away. See www.concussioninsport.gov.au for more information.

					Injury - Day 0	Symptoms present
Symptoms still present	Symptom free - Day 1	Day 2	Day 3	Day 4	Day 5	Day 6
Day 7	Day 8	Day 9	Day 10	Day 11	Day 12	Day 13
Day 14	Begin contact training				Return to Comp - Day 21	

PHYSIOTHERAPY IN CONCUSSION MANAGEMENT



Physiotherapists are highly trained health professionals with a broad knowledge of how the body works, the impact of injury, rehabilitation and return to sport.

If you suffer a concussion, it is recommended that you see a GP or physiotherapist 3-4 days after injury. At the first appointment you can expect your physiotherapist to complete a comprehensive concussion assessment. This will include taking a thorough history of your injury and symptoms. Your physio will conduct additional testing to assess the functioning of your body's neck, vision, inner ear and balance systems and determine need for specific rehab.

Physiotherapists are trained in providing neuro rehabilitation and will work together with you in developing a rehab program. This will include education and advice regarding symptom management. And it may involve hands-on treatment as required for neck soreness. They will walk you through graded return to activity, school and sport giving you a program with clear, defined stages based on your symptoms. They will also maintain communication with school staff and coaching as required throughout your return.

Your physiotherapist can provide clearance for return to competition, and will liaise closely with your treating doctor and other health professionals involved in your care.

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Or visit:

[www.goodcountryphysio.com.au/
onlinebookings](http://www.goodcountryphysio.com.au/onlinebookings)

Please Note:

This information is general in nature and intended as a guide only. Specific advice around diagnosis and management of concussion should be sourced for individual athletes from a treating physiotherapist or doctor.

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