# **Concussion Information**

# NB You do not need to be knocked out/lose consciousness to be concussed.

### **Signs and Symptoms**

- Headache
- Difficulty with memory
- Feeling sick, or vomiting
- Balance problems/dizziness
- Blurred/double vision
- Difficulty concentrating
- Feeling very tired
- Sensitivity to light
- Sensitivity to noise
- Irritability
- Behavioural/personality changes
- Sleep problems.

#### When to seek medical help

if experiencing any of these then seek medical help immediately, go to the hospital.

- Fainting/passing out
- Seizure
- Extreme tiredness/difficulty rousing
- Loss of balance/clumsiness
- Severe/worsening headache
- Repeated vomiting
- Feeling confused/agitated
- Changes in vision
- Slurred speech

Concussion

• Feeling weak/numb



### **General Advice**

- Most concussions are short lived and will resolve within 3 weeks.
- You should book to see your GP for a checkup 7-10 Days post injury to ensure recovery is on track
- If symptoms do not resolve within 3 weeks then you will need to be referred to a concussion service.

### **Recovery - What helps?**

### First 24 - 48 hours

- Allow your brain time to **rest** and heal as you would for a muscle strain
- Low impact, low intensity exercise has been shown to assist recovery slow walking on level ground, slow cycling on static bike low resistance. For 10 15 minutes once or twice per day.
- Participating in **simple activities of daily living** around the home for short periods of time, 10-15 minutes. Will also aid recovery.
- Avoid using screens tv, mobile, computer. Use of screens is very hard work for the brain as there is a lot of fast moving visual and auditory stimulus. Short phone calls to keep in contact with others are fine, kept texting and emails to simple short messages and just do one at a time with a decent rest period between each message. Do not game, scroll social media or use videoconferencing.
- Sleep you may need more sleep to allow the brain to recover, if you are having a day time nap then it is best to have this in the late morning or early afternoon so that it does not affect your usual night time routine. 20-30 minutes is often enough to allow the brain to recharge. Think of this as "investing in your recovery" rather than "having a nana nap"



### First 24 - 48 hours cont...

- Work and Study usually need a minimum of 2 days off from work and study. If you need longer your health professional can provide guidance around this.
- Avoid driving for the first 48 hours. You need to have no dizziness, be able to maintain concentration, judge distances, and react quickly to unexpected hazards before you can return to driving.
- Avoid alcohol, caffeinated/energy drinks and recreational drugs until symptoms have resolved. Use of these can increase symptoms and will slow recovery.
- Where possible avoid air travel for the first 24-48 hours.
- Pain relief, you can use **Paracetamol/Panadol** for headaches in first 48 hours. After 48 hours you can use anti-inflammatories such as ibuprofen as guided by your health professional.





### After 48 hours

#### Rebuilding your brains energy and strength

- Monitor how different activities affect your symptoms on a scale of 0-10, where 0 = no symptoms and 10 = worst symptoms.
- Use symptom score as a method of judging if your activity level is too much. If your activity level is safe then your symptom score should not increase by 3 or more points and symptoms should return to your baseline within 1 hour of stopping the activity. This means that symptom increase should be mild and brief.
- Start doing physical and cognitive/mental activities for 10

   15 minutes at a time. Then gradually increase your activity time and intensity using symptom score as a measure. If symptoms increase by 3 or more points then you need to stop the activity for now. When you try again (not before the next day) then reduce the time/intensity of the activity to keep symptoms increase mild and brief.
- If symptoms don't increase by 3 or more points and any increase in symptoms settles to baseline within an hour of completing the activity, then you can continue to gradually increase the activity intensity and time.





## **Concussion Information**

### **Physical Activity**

#### Low Intensity

Walking (slow, flat ground) Jogging (slow, flat ground) Cycling static bike (easy) Easy swimming Aqua Jogging



Spin class Heavy weight training Sprinting Swimming intervals HIIT classes



### **Cognitive / Mental Activity**

#### Recharging

Napping Sleep Meditation Breathing Techniques Cooking / Baking Listening to music / podcasts

#### Draining

Video Games Social Media Scrolling Computer use Reading books / magazines Puzzles Working / Studying





### Return to work / school

Returning to school or work too quickly increases the risk if a second concussion. Second/subsequent concussions can be much more serious.

#### **Return to school guidelines**

**Environmental modifications** – rest periods, reduced hours/attendance

**Physical modifications** – avoid collision activities in playground and PE

**Curriculum modifications** – allow more time to complete activities, assignments, delay testing.

**Be guided by symptom score** – increase activity gradually stopping if symptoms are more than mildly and briefly increased (more than 2 points, longer than 1 hour)

#### **Return to work guidelines**

**Graduated return** to work using symptom score as a guide. May need to work **shorter hours and less days per week**, try not to work on consecutive days initially.

Work in **morning** and rest in **afternoon**.

**Gradually increase hours** and days as symptom score permits. Don't increase numbers of hours and numbers of days at same time. Take regular **breaks**.

Plan and pace work tasks.

Look if you can change how you do tasks to reduce load, are there new ways of doing things?





### **Return to Sport**

#### Starship/ACC guide for children

Week 1: no training or screens. Gentle low intensity exercise and activities of daily living.

**Week 2**: light exercise that does not increase symptoms more than mildly and briefly (no more than 2 points and no longer than 1 hour). No contact.

**Week 3**: gradually increase exercise using symptom score as guide. Progress to contact training.

Week 4: Full contact training and return to sport.

#### **Sportsmart ACC recommendations**

There is lack of research to support the optimal period of time an athlete should be out of training and competition. A graduated return to sport protocol based on best available evidence and expert experience is as follows.

Return to activity stage	Functional Exercise	Objective
Symptom limited activity	Activities of daily living that don't increase symptoms	Gradual reintroduction of school/work activities.
Light aerobic exercise	Walking, swimming, stationary bike low to medium pace. No resistance training.	Increase heart rate.
Sport specific exercise	Running drills No head impact activities	Add movement
Non-contact training drills	Progression to more complex drills eg. passing drills. May start progressive resistance training.	Exercise, coordination and increased thinking.
Full contact Training	Following clearance from a medical doctor. Participation in normal training activities.	Restore confidence and assessment of functional skills by coaching staff.
Return to Sport	Normal sport	Full return to sport

