

Rowing Australia Concussion Guidelines

Dr Kath Gaffney, Dr Lisa Elkington Feb 2024

Rowing Australia recognises the importance of the health and safety of participants at all levels. This policy addresses the serious issue of traumatic head injury and provides information in line with the current guidelines from the AIS “Concussion and Brain Health Position Statement, 2024” (updated Feb 2024)

What Is Concussion

Concussion is a disturbance in brain function caused by a force occurring anywhere in the body resulting in brain trauma. The Amsterdam panel of the Concussion in Sport Group (CISG) defined concussion as *“a traumatic brain injury caused by a direct blow to the head, neck or body resulting in an impulsive force being transmitted to the brain that occurs in sports and exercise-related activities. ... Symptoms and signs may present immediately, or evolve over minutes or hours, and commonly resolve within days, but may be prolonged.”*

In rowing, this is most likely to occur by direct trauma such as, hitting an object protruding from a boat, from a collision resulting in a sudden stop or from a fall where the head hits the ground. Only 10-20% of concussion injuries result in loss of consciousness, and the injury may present with many symptoms and signs. Being aware of this, RA recommends “if in doubt, sit it out”.

Management of Concussion

Recognise

Remove

Refer

Rest

Return

Recognise

Concussion may be difficult to diagnose due to the many, varied symptoms and signs. The British Journal of Sports Medicine has developed a “Concussion Recognition Tool 6” (bjsm.bmj.com/57/11/692) which can be downloaded and placed in common areas such as boatsheds, so anyone can refer to it. This tool is for

There are 4 steps involved in identifying a person with concussion after head trauma.

When assessing someone after a head injury, remember first aid principles (danger, response, airway, breathing, circulation) and the possibility of a spinal injury.

Red flags – call an ambulance if medical personnel are not available

- * neck pain or tenderness
- * double vision
- * weakness or tingling/burning in arms or legs
- * severe or increasing headache

- * seizure or convulsions
- * loss of consciousness
- * deteriorating consciousness
- * repeated vomiting
- * increasing confusion agitation or irritability
- * double vision
- * loss of vision
- * visible deformity of the skull

Observable Signs

Loss of consciousness
 Lying motionless for more than 5 seconds
 Slow to get up after a direct or indirect hit to the head
 Disorientation or confusion
 Blank or vacant look
 Balance or gait difficulties, incoordination
 No protective action taken when falling
 Impact seizure or tonic posturing
 Inability to respond to questions appropriately
 Atypical behaviour

Symptoms

Headache
 Pressure in head
 Balance problems
 Nausea or vomiting
 Blurred vision
 Drowsiness or dizziness
 Sensitivity to light or noise
 Fatigue, low energy or not feeling right
 More emotional, irritable, sad or anxious
 Difficulty concentrating or remembering
 Feeling slowed down or in a fog

Memory Assessment (12 years and over)

Asking a series of questions relevant to the situation where the injury occurred, such as:

- Where are we today?
- What race are you in?
- How did you get here today?

Remove

Any person with a suspected concussion should be removed from training or competition and must not return to activity until assessed by a doctor, even if the symptoms resolve.

Anyone with a suspected concussion should remain in the company of a responsible person, not drink alcohol or take recreational drugs, not take aspirin NSAIDs or sedating medication, and not drive until assessed by a doctor.

Refer

Anyone who has suffered a known or suspected concussion needs to be assessed by a doctor, preferably a Sports and Exercise Physician, before returning to rowing. The doctor will determine whether the rower has had concussion, review and treat any other injuries that may have occurred, and be integrally involved in the return to row program. The SCAT 6 (bjsm.bmj.com/content/57/11/692) is a downloadable tool to be used for athletes 13 years and older. It can be used in the first 48 hours to help make a diagnosis or to monitor an athlete's condition. The SCOAT 6 (bjsm.bmj.com/content/57/11/651.full.pdf) is a tool for re-evaluation of the athlete by a health professional, usually around 72 hours after the concussion.

Rest

Relative physical and mental rest is required for the first 24-48 hours. This means participating in activities of daily living only, with minimal exertion, no screen time and minimal mental stimulation. If all symptoms and signs have resolved, the rower is ready to undertake a graded return to rowing. In children and adolescents 'return to learn' takes priority over 'return to sport'. Most adults will be able to return to full activity in 10-14 days. Adolescents should not return to full activity before 2 weeks and children (5-12 yo), 4 weeks, from the concussive injury.

Return to Sport

After the initial period of rest, it is recommended that the athlete is reviewed by a doctor and the SCOAT 6 is performed on day 3. If all symptoms and signs have resolved, a gradual return to rowing will be prescribed. There must be minimal symptoms occurring during, after or the following day, before progression to the next level. Each level will take a minimum of 1 day.

Level 1 (day 3 minimum)

Light aerobic exercise (able to converse easily) up to 55% max HR eg exercise bike, walking

Level 2 (day 4 minimum)

Increased intensity and duration, up to 70% max HR, eg exercise bike, light jogging or brisk walking.

Level 3 (day 5 minimum)

Light rowing specific training such as resistance training using body weight and ergometer can be safely introduced. Minimise activities involving head movement.

Level 4 (day 6 minimum)

Progression of resistance training using light weights and ergometer up to 80% maximum HR can be introduced.

Level 5 (day 7 minimum)

Return to on-water training, focusing on drills, ideally in crew boats in calm conditions. Aerobic training should be performed off-water.

Level 6 (day 8 minimum)

On-water training with more complex drills and difficult conditions. Progression of weight training and activities involving head movements.

Level 7 (day 9 minimum)

Up to 90% max HR aerobic training and 90% resistance and usual training. Complex on-water training in difficult conditions.

Level 8 (day 10 minimum)

Return to high intensity training and racing

It is recommended that a medical review is undertaken before returning to on-water training.

Medical review with a doctor experienced with concussion is recommended:

- Before return to on-water training
- If there is failure to progress through the return to row program
- For the second concussion in a 12 month period.

Further Resources

The Concussion in Sport Australia webpage has resources available for anyone wanting to learn more about concussion.

“if in doubt, sit them out”