

CONCUSSION PROTOCOL

TRIATHLON IRELAND GUIDELINES



INTRODUCTION

The following guidance is intended to provide information on how to recognise concussion and on how it should be managed from the time of injury through to a safe return to education, work and playing sport. This information is intended for the general public and for individuals participating in all grassroots sports – primary school age and upwards – where Healthcare Professionals are typically not available onsite to manage concussed individuals.

This document contains general medical information, but this does not constitute medical advice and should not be relied on as such. Nor is this guidance a substitute for medical advice from a qualified medical practitioner or healthcare provider. You must not rely on this guidance as an alternative to seeking medical advice from a qualified medical practitioner or healthcare provider. In particular, if you have any questions or concerns about a particular medical matter you should immediately consult a qualified medical practitioner or healthcare provider. You should never delay seeking medical advice, disregard medical advice or discontinue medical treatment because of information contained in this guidance.

At all levels in all sports, if an individual is suspected of having a concussion, they must be immediately removed from play. No person should return to competition, training or any Physical activity including but not limited to everyday activities within 24 hours of a suspected concussion injury. Documentation of any symptoms, including onset, should be encouraged to ensure accurate timeline of events post suspected concussion.

Anyone with a suspected concussion should NOT drive a motor vehicle (e.g. car or motorcycle), ride a bicycle, operate machinery, or drink alcohol within 24 hours of a suspected concussion and commercial drivers (HGV etc.) should seek review by an appropriate Healthcare Professional before driving.

All those suspected of sustaining a concussion should be assessed by an appropriate Healthcare Professional within 24 hours of the injury. If there are concerns about other significant injury or the presence of 'red flag symptoms' then the athlete should receive urgent medical assessment onsite or be referred to hospital for appropriate clinical assessment in Accident and Emergency (A&E).

Anyone with a suspected or confirmed concussion should undertake a period of rest (i.e. no physical exertion) for 24-48 hours to allow resolution of symptoms.

In general, light activities of daily living can be undertaken, including walking, provided no symptoms recur with any activities. Intense exercise, challenging work, or sport (should be avoided as they may precipitate or worsen symptoms. Once symptom free, and following the initial 24-48 hour rest period, the individual can then progress through the graduated return to activity (education/work) and sport programme (GRTA)

If you have symptoms of concussion (non-resolving headache, dizziness, nausea, vertigo etc) consult your Healthcare Professional who may refer you to secondary care for further investigations (Head CT, Neurology review etc).

Any non-resolving symptoms early or recurrence of symptoms. In general mild concussion symptoms should resolve after 48hr.

CRITICAL TIMEFRAMES

- 24 hours: Initial rest, seek medical attention.
- 7 days: Begun gradual return to education/work.
- 21 days: Earliest possible return to competitive sport if symptom-free.

WHAT IS A CONCUSSION?

Sports-related concussion is a traumatic brain injury that is caused by a direct blow to the head, neck, or body resulting in an impulsive force being transmitted to the brain. Concussion results in an impairment of brain function and it can affect the way a person thinks, feels and remembers things. Signs and symptoms may present immediately. However, in some cases, signs and symptoms may evolve over a number of minutes or hours, up to 48 hours following the injury. Signs and symptoms commonly resolve within days but may be prolonged.

Loss of consciousness (being 'knocked out') occurs in less than 10% of concussions and is not required to diagnose a concussion. However, anyone who loses consciousness because of a head injury has had a concussion.

Anyone with suspected concussion should be immediately removed from the field of play (FOP) and assessed by an appropriate Healthcare Professional or access the NHS Northern Ireland by calling 111 or the HSE Southern Ireland by calling 112 or 999 within 24 hours of the injury.

CONCUSSION CAN AFFECT PEOPLE IN 4 MAIN AREAS:

PHYSICAL

e.g. headaches, dizziness, vision changes.

MENTAL PROCESSING

e.g. not thinking clearly, feeling slowed down

MOOD

e.g. short tempered, sad, emotional

SLEEP

e.g. not being able to sleep or sleeping too much

WHY MUST A CONCUSSION BE TAKEN EXTREMELY SERIOUSLY?

- Ignoring the signs and symptoms of concussion may result in death, a more serious brain injury or a prolonged recovery period. The potential for serious and prolonged injury emphasises the need for comprehensive medical assessment and follow-up until the concussion has fully resolved.
- Delayed removal from activities and delayed access to healthcare professionals can increase the length of time before an athlete is able to fully return to sport.
- Returning to training and competition before complete resolution of the concussion and without completion the graduated return to activity (education/work) and sport programme (GRTP) Protocol increases the risk of recurrent concussions that might take place with ever decreasing forces.
- Repeated concussions could mean that the athlete must stop competing or participating in all sports earlier than expected and may have some potential to result in permanent neurological (brain) impairment.

WHAT CAN BE THE CONSEQUENCES OF CONCUSSION?

A history of previous concussion(s) increases the risk of sustaining a further concussion, which may then take longer to recover. A history of a recent concussion also increases the risk of other sport- related injuries (e.g. musculoskeletal injuries).

Concussions can happen at any age. However, children and adolescents:

- May be more susceptible to concussion.
- Taking longer to recover and returning to education too early may exacerbate symptoms and prolong recovery.
- Are more susceptible to rare and dangerous neurological complications, including death caused by a second impact before recovering from a previous concussion.

CONCUSSION IS TREATABLE

By managing concussion appropriately in the early stages following the injury and getting help from healthcare professionals with experience in concussion, you can fully recover. Immediate removal from the field of play and early access to healthcare professionals with experience in concussion management have been shown to improve recovery.

HOW TO RECOGNISE

Spotting head impacts and visible clues of concussion can be difficult in fast moving sports. It is the responsibility of everyone – athletes, coaches, teachers, technical officials, spectators, and families – to watch out for individuals with suspected concussion and ensure that they are immediately removed from the field of play. Continuing to compete or participate following a concussion is dangerous and leads to a longer recovery period. Remember that the primary aim is to protect the individual from further injury by immediately removing them from play. Return to play should not be permitted until after evaluation by an appropriate Healthcare Professional and the successful completion of the GRTA.

RISK SCENARIOS

SWIM: Collisions in water, hitting the bottom, or slips at swim exits.

BIKE: Falls from bikes or incidents at mount/dismount lines.

TRANSITION: Athlete collisions in crowded zones.

RUN: Tripping in finish chutes or crowded starts.

WHAT YOU MAY SEE WHEN WATCHING AN ATHLETE FROM THE SIDELINE (SIGNS)

- Actual loss of consciousness / suspected loss of consciousness
- Seizure (fit) or convulsion
- Tonic posturing (abnormal movement of arms or legs)
- Balance problems / falling over / unsteady on feet (ataxia)
- Lying motionless on ground
- Grabbing / clutching head
- Slow to get up / tripod (on hands and knees for support)
- Unsteady on feet

WHAT YOU MAY NOTICE WHEN YOU ATTEND THE ATHLETE ON THE FIELD OF PLAY (SIGNS)

- Confusion / dazed
- Disorientated
- Athlete is 'just not right'
- Athlete is more emotional / behavioural changes
- Complaining of any of the signs and symptoms listed above

HOW AN ATHLETE TELLS YOU THEY ARE FEELING EITHER ON OR OFF THE FIELD OF PLAY (SYMPTOMS)

- Nausea (feeling sick) or vomiting
- Headache
- Dizziness
- Irritability
- Drowsiness
- Sadness
- Fatigue or low energy
- The athlete is more nervous or anxious
- They may say that it "Doesn't feel right"
- Feeling slowed down / "in a fog"
- "Pressure in head"
- Pressure in ear drum
- Blurred vision
- Sensitivity to light
- Amnesia (memory loss)

POST RACE

Signs and symptoms usually present immediately at the time of injury, but the onset of these could be delayed and may not appear until 24–48 hours later. Athletes with a suspected concussion should be monitored by a responsible adult in case any signs or symptoms occur.

**There is no such thing as a minor concussion- If you are concerned that an athlete has a serious head injury you should assume they may also have a serious neck injury, until medically cleared.*

If any of the following 'red flags' are reported or observed, then the athlete should receive urgent medical assessment from an appropriate Healthcare Professional onsite or in a hospital Accident and Emergency (A&E) Department using emergency ambulance transfer if necessary:

- Any loss of consciousness because of the injury
- Deteriorating consciousness (more drowsy)
- Amnesia (no memory) for events before or after the injury
- Increasing confusion or irritability
- Unusual behaviour change
- Any new neurological deficit e.g.
 - Difficulties with understanding, speaking, reading or writing
 - Decreased sensation
 - Loss of balance
 - Weakness
 - Double vision
- Seizure/convulsion or limb twitching or lying rigid/motionless due to muscle spasm
- Severe or increasing headache
- Repeated vomiting
- Severe neck pain
- Any suspicion of a skull fracture (e.g. cut, bruise, swelling, severe pain at site of injury)
- Previous history of brain surgery or bleeding disorder
- Current 'blood-thinning' therapy
- Current drug or alcohol intoxication

**If an athlete has a suspected spinal injury, then this becomes the primary concern. Call an ambulance and do not move the person. The athlete needs to have their neck injury assessed before being assessed for concussion*



DIFFERENT TYPES OF CONCUSSION YOU MAY SEE OR EXPERIENCE

NOT ALL CONCUSSIONS ARE THE SAME

Different types of concussion may require a specific treatment or management.

For example, an impact to the head or body may cause a disturbance to the inner ear (vestibular system) that can cause vertigo-type symptoms (dizziness, headaches, blurred vision, balance issues). athletes experiencing these symptoms should see a healthcare professional trained in the assessment and management of vestibular issues. Similarly, many symptoms of concussion could also be caused by issues with the neck (headaches, dizziness, pain) and seeing a healthcare professional who can appropriately assess the neck can help with your recovery.

A thorough assessment can categorise a concussion based on the signs and symptoms. This can help direct effective and targeted treatment and rehabilitation.

CURRENTLY, THERE ARE FIVE CONCUSSION CLINICAL PROFILES (TYPES):

COGNITIVE / FATIGUE:

Can cause trouble with prolonged or complex mental tasks and long days. It can cause increased fatigue as the day goes on. Cognitive issues include decreased concentration, decreased ability to multitask, increased distractibility and trouble learning or retaining new information.

VESTIBULAR:

Can cause trouble with balance, motion and vision. Impairment of the vestibular system (the balance centre of the brain) affects one's ability to coordinate head and eye movements, steady or balance vision and interpret motion.

OCULAR:

Can cause trouble with visual tasks like reading, looking at a computer screen or mobile phone.

MIGRAINE:

Can cause changes in your normal routine such as sleeping in or avoiding loud concerts or sporting events. Symptoms include headache, nausea and sensitivity to light or noise.

ANXIETY/MOOD:

Can make it hard to turn your thoughts off and causes excessive worry or concern. This can cause problems with social interactions and may worsen if you avoid routine activities because of your concussion. A combination of medical history, individual risk factors, injury information and assessments of the neck and sleep can help inform the concussion clinical profile. Some profiles may overlap, and assessment of these profiles will help direct the most effective treatment.

***Different concussion types will require different treatment and management. An active targeted individualised treatment programme may enhance recovery.**

FOLLOWING A SUSPECTED CONCUSSION, WHAT'S YOUR ROLE?

COACHES, TECHNICAL OFFICIALS, RACE DIRECTORS AND VOLUNTEERS

Safely remove the individual from the field of play (FOP) and ensure that they do not return to the FOP even if they say that their symptoms have resolved.

Observe the athlete or assign two responsible adults to monitor the individual once the athlete has been removed from the FOP.

If the athlete is under 18 years old, contact parent/guardian to inform them that a possible concussion may have been sustained.

Arrange for the athlete to get home safely.

Ensure that the athlete has arranged for a responsible adult to monitor them over the next 24-48 hours.

Ensure any relevant injury report form is completed and stored by the club/school/organisation.

Follow a GRTA with an emphasis on initial relative rest and returning to education/work before returning to training for sport.



FOLLOWING A SUSPECTED CONCUSSION, WHAT'S YOUR ROLE?

PEERS AND CLUBS

Recognise and promptly identify the signs and symptoms of a concussion during informal activities, such as weekend rides or casual events.

Ensure that any individual suspected of having a concussion immediately stops all physical activities.

Encourage the injured person to seek medical assessment by an appropriate Healthcare Professional as soon as possible, ideally within 24 hours.

Monitor the individual's adherence to the Graduated Return to Activity (GRTA) protocol to ensure proper recovery timelines are followed.

Offer support throughout the recovery process by staying informed of the individual's progress and ensuring they do not return to physical activities prematurely.

Maintain accurate records of the incident, including the date, time, and nature of the injury, and store this information securely within the club's documentation system.

Emphasise the importance of prioritising health over competition and foster a club culture that supports safety and recovery.



PARENTS, CARERS

Obtain full details of the incident and store this information correctly.

Do not leave your child alone for the first 24 hours.

Have your child assessed by an appropriate Healthcare Professional onsite within 24 hours or by accessing the NHS Northern Ireland Northern Ireland by calling 111 or the HSE Southern Ireland by calling 112 or 999.

Monitor your child for worsening signs and symptoms of concussion for at least 24-48 hours.

Encourage initial rest as needed and limit smartphone/ computer and screen use for the first 24-48 hours.

Inform school/work/other sports clubs of the suspected concussion.

Support your child to follow a GRTA.



FOLLOWING A SUSPECTED CONCUSSION, WHAT'S YOUR ROLE?

ATHLETES

Stop competing/training immediately if you experience any symptoms of concussion.

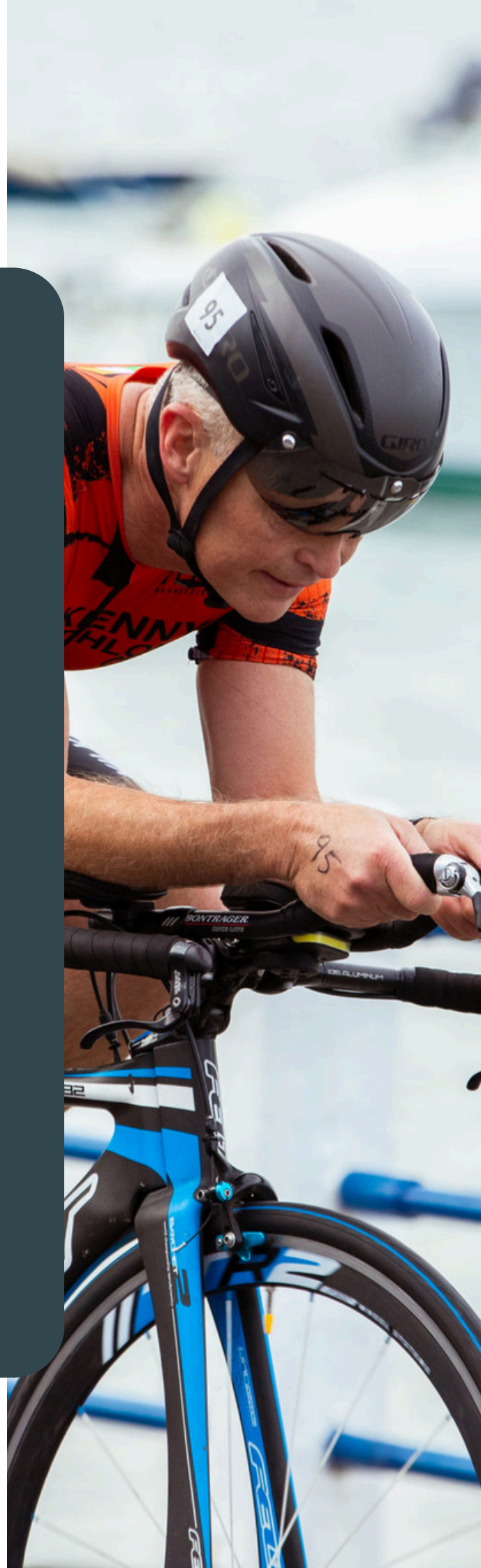
Be honest with how you feel and report any symptoms immediately to your coach, medic and/or parent.

Delays in reporting and under-reporting of symptoms have been associated with a longer recovery and delayed return to activity and could risk incomplete recovery of the brain.

If you have continuing symptoms, do not return to training or sport activities until evaluated by an appropriate Healthcare Professional.

Inform your school/work/sports clubs.

Follow the GRTA.



CONCUSSION RECOVERY

GRADUATED RETURN TO ACTIVITY (EDUCATION/WORK) AND SPORT - GRTA

Overview

- Generally, a short period of relative rest (first 24-48 hours) followed by a gradual stepwise return to normal life (education, work, low level exercise), then subsequently to sport is safe and effective.
- Progression through the stages below is dependent upon the activity not exacerbating symptoms more than mildly. Medical advice from a Healthcare Professional, the NHS Northern Ireland by calling or the HSE Southern Ireland should be sought if symptoms deteriorate or do not improve by 14 days after the injury. Those with symptoms after 28 days should seek medical advice via their GP.
- Participating in light physical activity is beneficial and has been shown to have a positive effect on recovery after the initial period of relative rest. The focus should be on returning to normal daily activities of education and work in advance of unrestricted sporting activities.

If symptoms continue beyond 28 days remain out of sport and seek medical advice from a GP.



GRADUATED RETURN TO EDUCATION/WORK & SPORT SUMMARY

(See full table below for detail)

STAGE 1: RELATIVE REST FOR 24–48 HOURS

- Minimise screen time
- Gentle exercise*

STAGE 2: GRADUALLY INTRODUCE DAILY ACTIVITIES

- Activities away from school/work (introduce TV, increase reading, games etc)*
- Exercise –light physical activity (e.g. short walks) *

STAGE 3: INCREASE TOLERANCE FOR MENTAL & EXERCISE ACTIVITIES

- Increase study/work-related activities with rest periods*
- Increase intensity of exercise*

STAGE 4: RETURN TO STUDY/WORK AND SPORT TRAINING

- Part-time return to education/work*
- Start training activities without risk of head impact*

STAGE 5: RETURN TO NORMAL WORK/EDUCATION AND FULL TRAINING

- Full work/education
- If symptom-free at rest for 14 days consider full training

STAGE 6: RETURN TO SPORTS COMPETITION

(NOT before day 21) as long as symptom free at rest for 14 days and during the pre-competition training of Stage 5

*rest until the following day if this activity more than mildly increases symptoms.

