

### 1. INTRODUCTION

This is a guidance document from the British Fencing (BF) Medical Commission.

The guidance details the assessment and management of fencers with concussion or potential concussion.

The guidance is for fencers, referees, coaches, first aiders, medical healthcare professionals, fellow team members, team managers, parents/guardians, directoire technique members and competition organisers.

### 2. SUMMARY

- A concussion is a traumatic brain injury and is potentially serious.
- These guidelines apply to fencers of all ages.
- Concussions may occur at any age but children and young adults are more susceptible including severity and length of recovery.
- Concussion may occur without a direct head injury.
- Concussion may occur without loss of consciousness or significant immediate symptoms.
- For all fencers with any new symptoms following a head or concussive injury –
  - Assessment should be performed by an appropriate person.
    - International and major events – paramedic crew or other healthcare professional.
    - Other events – first aiders, St. John's ambulance member or trained individuals familiar with this guidance
    - In any event, any trained individual may provide appropriate assistance.
  - Removal from competition or training may be required.
  - Return to fencing after withdrawal on the day of concussion or suspected concussion should not be permitted.
  - Fencers must not return to competitive fencing until symptom free with light aerobic activity, or they have returned to pre-concussion level.
- Recognition of the signs and removal from the piste helps prevent further injury.
- Other injuries may occur at the same time as a concussive injury.
- A previous history of concussion puts fencers at a greater risk of suffering further concussive injury and also a longer recovery time.
- Most individuals with concussion recover with physical and mental rest, and within 2 to 3 weeks.
- It is recommended that fencers seek medical assistance following concussion or suspected concussion, particularly since symptoms may not appear until up to 48 hours after the initial injury.

### 3. WHAT IS A CONCUSSION?

Concussion is a traumatic brain injury resulting in a disturbance of brain function which may result in headache, dizziness, memory disturbance and/or problems with balance.

The symptoms of concussion may not be immediately evident and may not become apparent up to 48 hours following a head, concussive or suspected concussive injury.

### 4. WHAT CAUSES CONCUSSION?

Concussion is often caused by a direct blow to the head but may occur as a result of an injury to another part of the body which causes subsequent rapid movement of the head (eg. corps-a-corps or falling to the ground).

*Note: in fencing, especially with epee and sabre, hits to the head are common. Accidental clashes of the guard on the mask happen occasionally. Fencing masks provide a very high level of protection such that most of these type of blows are safe. Masks will also protect the head from a fall so it is rare to see a concussive injury however the possibility must not be overlooked.*

### 5. INDICATORS OF CONCUSSION OR SUSPECTED CONCUSSION

- Everyone involved in fencing should be aware of the signs, symptoms, dangers and initial management of concussion (attending medical staff, referees, coaches, team members, parents and guardians). *See link to e-learning below*
- Concussion is often difficult to recognise.
- The four main areas that may be affected are:
  - Physical (eg. headaches)
  - Mental (eg. poor judgement)
  - Mood (eg. short temper)
  - Sleep (eg. insomnia or disturbed sleep)
- Clear or “red flag” indicators are:
  - Deteriorating or loss of consciousness
  - Seizures/convulsions
  - Amnesia (memory loss)
  - Lying motionless on the ground
  - Loss of equilibrium or poor coordination
  - Confusion or disorientation
  - Behavioural changes
  - Dazed, blank or vacant look
  - Repeated vomiting
  - Severe neck pain
- Other indicators of concussion (delayed symptoms):
  - Headache
  - Nausea & vomiting
  - Visual disturbance
  - Dizziness
  - Drowsiness or fatigue
  - Mechanism of injury

## 6. STANDARDISED ASSESSMENT TOOLS

### 6.1 FOR NON-CLINICAL RESPONDENTS

Concussion Recognition Tool 6 CRT6

- to recognise and remove
- children, adolescents, adults
- not to diagnose concussion.

Link - [The Concussion Recognition Tool 6 \(CRT6\) \(bmj.com\)](https://www.bmj.com/content/353/bmj.g961)

### 6.2 FOR HEALTHCARE PROFESSIONALS

Code	Title	For	Link
SCAT6	<b>Sport Concussion Assessment Tool 6</b>	13 years+, adults	<a href="https://www.bmj.com/content/353/bmj.g961">Sport Concussion Assessment Tool 6 (SCAT6) (bmj.com)</a>
child SCAT6	<b>Sport Concussion Assessment Tool 6 – child</b>	8-12 years	<a href="https://www.bmj.com/content/353/bmj.g961">Child SCAT6 (bmj.com)</a>
SCOAT6	<b>Sport Concussion Office Assessment Tool 6</b> - Typically from 72 hours after a sport-related concussion	13 years +, adults	<a href="https://www.bmj.com/content/353/bmj.g961">Sport Concussion Office Assessment Tool 6 (SCOAT6) (bmj.com)</a>

BUT a normal SCAT6 does NOT override clinical concerns.

## 7. IMMEDIATE MANAGEMENT OF CONCUSSION OR SUSPECTED CONCUSSION

- Immediate and safe removal of the fencer from the piste.
- Assessment by a healthcare professional, paramedic, first aider, St. John's ambulance provider or trained individual (using SCAT6 or childSCAT6). \*see footnote re time out rule
- If no trained respondent available use CRT6
- Video replay may help with the assessment of the injury.
- Administration of appropriate treatment and URGENT onward referral to a healthcare professional if required (red flag symptoms/signs), which may involve telephoning 999 or transportation to the nearest Emergency Department in the United Kingdom.
- The UK Government guidance is **“if in doubt, sit them out.”**

*\*Footnote- the timing of an injury break, for treatment purposes, should start **after medical assessment**. In FIE events this break is 5 minutes with an expectation that the assessment will also be relatively short. In the UK for U15 events and all non ranking events the injury break can increased to up to 10 minutes, organisers must communicate this to participants (fencers and referees) in advance. For suspected concussion in the UK assessment (prior to the start of the injury break) should take at least 10 minutes.*

## 8. INTERMEDIATE MANAGEMENT OF CONCUSSION OR SUSPECTED CONCUSSION

- Fencer to be accompanied and monitored by an appropriate adult for at least 24 hours. \*
- For squads abroad additional guidance will be in a separate document*
- No driving or use of heavy equipment for 24 hours.
- No consumption of non-essential medications/drugs (including alcohol) for 24 hours.
- Minimise smartphone, screen and computer use for at least the first 48 hours (limiting screentime has been shown to improve recovery).
- After 2 days rest, mild exercise that increases the heart rate without drastically increasing symptoms appears to be beneficial eg using a stationary exercise bike or walking at a moderate pace. Note: mild exercise does not include any fencing- specific activities.

## 9. LONG-TERM MANAGEMENT OF CONCUSSION INCLUDING RETURN TO FENCING

- This is outside the scope of this guidance but return to education or work is the priority rather than return to fencing.
- Severe or prolonged symptoms (over 28 days) should be under the supervision of an appropriate Healthcare Professional
- Follow the advice in these 2023 guidelines - <https://www.sportandrecreation.org.uk/policy/research-publications/concussion-guidelines>

## 10. CONCUSSION EDUCATION

Recommended educational e-module for sport participants:

<https://concussion.britishcycling.org.uk/index.html#/id/63d7d2896c6eb3782e5a49bb>

<https://cattonline.com/>