Concussion & Return to play policy
Background

- Consensus statement on concussion in sport—the 5th international consensus conference on concussion in sport held in Berlin, October 2016
- FEI sponsorship and representation on Scientific Committee
What is Sports Related Concussion?

• SRC is a traumatic brain injury induced by biomechanical forces transmitted to the brain.
• SRC typically results in the rapid onset of short-lived impairment of neurological function that resolves spontaneously. However, in some cases, signs and symptoms evolve over a number of minutes to hours. “Delayed concussion”
Suspect Concussion – striking head

“Sport related concussion is a traumatic brain injury induced by biomechanical forces.”
Suspect Concussion – landing heavily

“Sport related concussion is a traumatic brain injury induced by biomechanical forces.”
Recognising Concussion using CRT 5

- Recognise and Remove
- Recognise the type of impact which may lead to concussion
- CRT 5 is used for identification of suspected concussion
Step 1: Red Flags – Call an Ambulance

- Neck Pain/tenderness. Double vision. Weakness/tingling in limbs
- Severe or increasing headache. Convulsions.
- Deteriorating conscious state or loss of consciousness.
- Vomiting. Increasingly restless or agitated.

- Do not remove helmet or move patient unless trained to do so
Step 2; Observable signs

**Level of consciousness**
- Motionless
- Slow to get up

**Confusion**
- Disorientated
- Unable to respond appropriately to questions

**Balance**
- Incoordination
- Stumbling
- Slow laboured movements

**Facial injury**
- Blow to head causing facial injury likely to be associated with concussion
Step 3: Symptoms

- Headache, “pressure in head”, balance problems, Nausea/vomiting, drowsiness, dizziness
- Blurred vision, sensitivity to light or noise, fatigue, “don’t feel right”
- More emotional, more irritable, sadness, anxiety/nervous, neck pain
- Difficulty concentrating/remembering, slowed down, like “in a fog”
Step 4: Memory Assessment (athletes over 12 years age)

- Sport specific questions e.g.
- What is the name of this competition?
- What horse were you riding?
- Where was your last competition?
- Are you competing any other horses today?
- Who has come with you today?
Managing Concussion (general)

- Do not leave alone (at least first 2 hours)
- Must not drink alcohol
- Must not take recreational/prescription medication
- Must not be sent home by themselves
- Must not drive a motor vehicle until passed by a medical professional
Understanding Concussion

• No one is slightly concussed, all concussions are significant
• Symptoms can be delayed
• You can suffer mild symptoms or severe symptoms
• Generally follows a recognised pattern of resolution
Concussion – Considerations before Return to Sport

• Recovery periods can vary dramatically, severity of early symptoms are a consistent predictor of recovery
• Recovery slower in younger age groups
• Investigations (scans) do not diagnose or prove recovery
• Graduated return to sport with medical guidance when symptoms have resolved
Dangers of Return to Sport before Full Recovery

• Effects of concussion increase the risk of another fall
• The concussed brain is more susceptible to injury in the case of another fall.
• Second Impact Syndrome
• Chronic Traumatic Encephalopathy ????
Return to Sport

• Graduated return, starting with light aerobic exercise
Return to Sport

• Increasing workload
Return to Sport

• Increasing workload, gentle schooling
Return to Sport

- Ready to compete, after medical clearance by appropriately trained healthcare professional.
Recognising Concussion is Vital

- Education – challenge for sports federations
- Athletes
- Coaches
- Officials (including medical)
- Parents
THANK YOU
Concussion awareness for a safer sport
CONCUSSION AWARENESS & EDUCATION

• An absolute necessity in equestrian sport
  To prevent secondary concussion and accidents to athlete, horse, spectators

• Everyone is involved
  Athletes
  Athletes’ entourage
  Medical & emergency care providers
  Officials
  OCs
  NFs...
Ignorance about concussion is very common, even in the medical profession.

Dr Peter Whitehead, Chair FEI Medical Committee
CONCUSSION BASICS 1 - RECOGNISE

• Know when to check for concussion
  Nature of the accident
  «Red flag» signs
  Dispell myths...

• Know and use concussion recognition tools
  CRT5 available on FEI’s website and in FEI’s «Doctor’s Pack»
CONCUSSION BASICS 2 - MANAGE

• Know what to do if concussion is likely
  Tools and concussion management chart in the FEI’s “Doctor’s Pack” (Officials, medical & emergency care providers, OCs)

• Make sure athlete does not drive or ride a horse until symptoms have cleared
  Balance and overall coordination are affected
CONCUSSION RECOGNITION & MANAGEMENT AT FEI EVENTS

A flow chart showing the key steps to find out whether concussion should be suspected and know what to do next.
Concussion recognition and management process at FEI events

1. Fall or heavy impact/blow
2. Call medical officer/person providing emergency care
3. Medical officer or emergency care person performs CRT5

- Concussion suspected:
- No concussion suspected:
Concussion suspected:

- If no medical personnel trained in concussion management is available on site:
  - Athlete to hospital

No concussion suspected:

- If medical personnel trained in concussion management is available on site:
- Athlete back to competition (sport specific rules permitting)
If no medical personnel trained in concussion management is available on site:

- **Athlete to hospital**

If medical personnel trained in concussion management is available on site:

**Athlete back to competition** (sport specific rules permitting)

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**Event runs over one day:**

- **SCAT5** (or equivalent concussion diagnosis protocol)
  - and
  - **Athlete to hospital/private doctor for medical assessment**

**Event runs over several days:**

- **SCAT5** (or equivalent concussion diagnosis protocol)
  - and
  - refer to hospital if concerns or monitor and reassess the athlete on next day

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**No symptoms**

- Complete FEI Clearance Form (copy to TD/FJ)

**Symptoms persist**

- **Athlete to hospital**
In all cases of suspected concussion:
- GJ President must be informed
- Medical officer/person providing emergency care fills Alert Sheet and gives to Technical Delegate/Foreign Judge
- Technical Delegate/Foreign Judge emails Alert Sheet within 24 hours to medical@fei.org

Any athlete diagnosed with concussion must receive written clearance from an appropriate health care provider before they compete again in an FEI sanctioned event.
CONCUSSION BASICS - 3 RETURN TO RIDING

• Return to riding is a step-wise process
• Clearance by appropriate health care practitioner
• FEI Clearance form
Concussion Clearance Form

Concussion is a traumatic brain injury that interferes with normal brain function. Concussion is caused by a biomechanical force or hit to the head or body, transmitted to the brain. Concussion can occur with or without loss of consciousness (being “knocked out”).

Concussion management is very important to make sure that all symptoms have cleared before return to riding. This is because further damage may occur if the brain receives additional impacts before it has fully recovered from the initial concussion episode.

Concussion Management:

1. Any athlete with concussion or suspected of having a concussion should be evaluated by an appropriate health-care provider that day.
2. Cognitive judgement, balance and coordination are impaired in concussion injury. The athlete must not return to riding on the same day of a concussion.
3. Any athlete with a concussion must follow the stages of return to riding outlined below under medical guidance before final clearance can be issued by an appropriate health-care professional.

Stages of Return to Riding

If at any of the stages indicated below the athlete becomes symptomatic, he/she should revert to the first stage of activity for 24 hours before attempting again to move on to the next stage.

1. Rest - no activity, complete cognitive and physical rest, do NOT Ride a horse. Once asymptomatic proceed to stage 2.
2. Progress to light aerobic training (walking, jogging), no resistance training.
3. Progress to sport-specific exercise, e.g. riding on the flat, hacking.
4. Gradually increased training intensity.
5. Full training after medical clearance.

1. Health care professional experienced in the management of sport concussion in line with the International Concussion in Sport Group Guidelines
2. As above.
3. This clearance can only be issued by a health care professional experienced in the management of sport concussion in line with the International Concussion in Sport Group Guidelines.
FOR A SAFE «RETURN TO PLAY» AFTER A CONCUSSION...

- NFs must check the athlete’s fitness to compete
  A medical suspension should be applied until clearance is received

- FEI automatic alert system to be introduced on June 1, 2018
  - It will inform NFs when one of their athletes sustains a serious injury at an FEI event
  - All disciplines except Eventing
HOW THE ALERT SYSTEM WORKS

• Online form accessible to authenticated Technical Delegates and/or Foreign Judges (all disciplines except Eventing)

• The form will have to be filled out for every event and will also allow reporting when no injuries occurred.
HOW THE ALERT SYSTEM WORKS (2)

• The form can be filled out offline.
• The TD/FJ judge will liaise with the medical professional to fill out the form on the ground.
• Once the form is submitted, notifications will automatically be sent out to the Competing For and Host NF (if different) of the athlete if follow-up has been deemed necessary by the medical professional.
HOW THE ALERT SYSTEM WORKS

• Relevant FEI staff members will have access to the content of all the online forms.
• For all athletes, the record of an injury will be available only to relevant FEI staff members.
ATHLETE HEALTH & SAFETY

HUMAN ATHLETE HEALTH & SAFETY

Welcome to the FEI Medical Committee’s information pages, dedicated to key health and safety matters for human Athletes in equestrian sport. The mission of the FEI Medical Committee of the FEI is to advise the FEI Headquarters on matters relating to the health and safety of Athletes and on all matters related to human anti-doping testing.

Knowledge contributes to safety. With these pages the Medical Committee hopes to raise awareness and bring clarity on issues which concern everyone involved in equestrian sport at any competition level. In particular, we strongly recommend that everyone involved in our sport takes the time to read the information on Concussion published in these pages, and familiarises themselves with the Concussion Recognition Tool (CIRTS), keeping in mind that where concussion is even suspected expert advice must be sought.

These pages will be updated from time to time with new topics and/or additional information for the existing ones where relevant. If you have queries please feel free to send us an email.

Best regards,
The FEI Medical Committee

CLICK HERE FOR HEALTH CARE PROFESSIONALS INFORMATION

Concussion

Medical Coverage of Events: Guidelines for Organisers

Riding while pregnant

Recommendations

Safety and Personal

Clean Sport for Humans

Your Role

Athlete
Official
Organiser
Veterinarian
Event Medical Officer
National Federation
Bidder
Media
Horse Owner
Coach
HUMAN ATHLETE MEDICAL & SAFETY INFORMATION FOR HEALTH CARE PROFESSIONALS

Dear Colleagues,

The FEI is very grateful that so many within the medical profession offer their services to our sport. We hope that colleagues will find the medical information useful and we welcome feedback.

Whilst recognising that medical facilities around the world vary, we hope that these web pages will encourage common standards of medical practice. It is also essential for all healthcare workers in our sport to be familiar with the relevant medical rules and have a good knowledge of anti-doping.

Whatever the equestrian discipline, we strongly request that Athlete Injuries are reported to the FEI Medical Committee via the FEI Official at the competitions. Feedback from competitions is essential for us to be able to advise on the facilities and expertise that are needed in our sport.

Best regards,
The FEI Medical Committee
Doctor’s Pack

February 2018
v1.0
<table>
<thead>
<tr>
<th>Topic</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Guidelines for the medical coverage of FEI events</td>
<td>3</td>
</tr>
<tr>
<td>Athlete Injury Report form for Medical Officers/Emergency</td>
<td>6</td>
</tr>
<tr>
<td>care providers at FEI events</td>
<td></td>
</tr>
<tr>
<td>Concussion Recognition and Management at FEI events</td>
<td>7</td>
</tr>
<tr>
<td>Concussion Recognition Tool 5 (CRT5)</td>
<td>9</td>
</tr>
<tr>
<td>Sport Concussion Assessment Tool 5 (SCAT5)</td>
<td>10</td>
</tr>
<tr>
<td>Child SCAT5</td>
<td>18</td>
</tr>
<tr>
<td>FEI Concussion Clearance Form</td>
<td>26</td>
</tr>
</tbody>
</table>
UPCOMING PROJECTS

• Awareness / Education
  Courses on FEI Campus; smart phone app...?
  Officials/Coaches manuals

• Support to NFs
  NF experience sharing; best practice recommendations
  NFs: tell us what you need 😊

• Contact us
  catherine.bollon@fei.org
THANK YOU
HEADS UP TO CONCUSSION
AN EC INITIATIVE
Position of Canada on Sport Specific Concussion Policies

- 1.4 million over 2 years for focussing on concussion education, prevention, diagnosis, management, and development of Return to Play protocols for athletes and students

- Federal/Provincial working group for Concussion in Sport created in 2015

- 2016 Governor Generals conference on Concussion in Sport: We can do Better

- EC participated in National Concussion Harmonisation Project and now complies with [Canadian Guideline for Concussion in Sport](#)
EC Concussion by the Numbers

- **231** Accidents were reported to EC in 2017.
- **28%** of Accidents Reported to EC in 2017 resulted in medical suspensions for possible concussion.
- **81%** of medical suspensions returned to play within the season.
- **14 days** was the average length of suspension.
**Discipline Specific Concussion Metrics**

- **53% Jumper**
  - n=34
- **17% Hunter**
  - n=11
- **9% Eventing**
  - n=6
- **5% Dressage**
  - n=3
- **2% Breed**
  - n=1
- **14% Other**
  - n=9
Jumping

- 91% Competition Ring (n=31)
- 9% Warm Up Ring (n=3)

**NOTE:** The vast majority of these occurred at the 0.9 to 1.10m level.
6. Multidisciplinary Concussion Care

Who:
- Medical Doctor
- Physiotherapist
- Nurse Practitioner
- Chiropractor
- Other Concussion Specialist

EC: Athlete remaining on the EC Medical Suspension List after the calendar year in which the suspension occurred will receive a notification of prolonged suspension from EC memberships to assist athlete in returning back to play.

Does the athlete have persistent symptoms? *>

- Yes
- No

Return to Play: EC Return to Play Form submitted to EC Competitions, once processed athlete is removed from Medical Suspension List by Competitions. Athlete receives medically release letter.

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**Hunter**

- 82% Competition Ring (n=9)
- 18% Warm up Ring (n=2)
Eventing

16.6% XC Warm Up, n=1
16.6% SJ, n=1
16.6% SJ Warm Up, n=1
50% XC, n=3

EC Accident Injury Report Form
EC Sport Specific Return to Play Guidelines

- The EC Sport Specific Stepwise Return to Play Guidelines are outlined on the EC Return to Play Form. Athletes and parents can clearly see which stage is tolerated and therefore which activities should be engaged.

- Athletes and parents should also consult the Parachute Return to Learn Protocol as applicable.
# The Process

## 1. Pre-Season Education
**Who:** athletes, parents, coaches, officials, trainers, teachers, healthcare professionals, all stakeholders  
**How:** Pre Season Education Sheet, website information, webinars, social media, stakeholder presentations

### Accident: Impact to the head, face, neck or body
- **Who:** EC Official Completes Accident Injury Report Form

- **Who:** EC Official Completes Accident Injury Report Form

- **Who:** Onsite qualified medical personnel, or EC Official

- **Who:** EC Official Completes Accident Injury Report Form

## 2. Head Injury Recognition
**Who:** Athletes, parents, coaches, officials, trainers, healthcare professionals  
**How:** Concussion Recognition Tool (CRT5)  
**EC:** EC Officials Files Accident Injury form which is processed by Competitions Dept and athlete is placed on medical suspension and receives notification
Is a more serious head/spinal injury suspected?

Yes

Remove from play

No

3A. Emergency Medical Assessment
Who: Onsite Qualified Medical Personnel (if available) or proceed to step 4

4. Offsite Medical Assessment
Who: Medical Doctor

Is a concussion suspected?

Yes

5. Concussion Management
Who: Medical Doctor, Physiotherapist, Nurse Practitioner, Chiropractor, Other Concussion Specialist
How: Return to Learn, EC Sport Specific Return to Play Strategy

No

3B. Sideline Assessment
Who: Medical Doctor
How: SCAT5, Child SCAT5

Is a concussion suspected?

Yes

Is a licensed Medical Doctor Present?

No

Yes

Remove from play

No

Return to Play
How: EC Return to Play Form submitted to EC Competitions, once processed athlete is removed from Medical Suspension List (release letter)
6. Multidisciplinary Concussion Care

**Who:** Medical Doctor, Physiotherapist, Nurse Practitioner, Chiropractor, Other Concussion Specialist

**EC:** Athlete remaining on the EC Medical Suspension List after the calendar year in which the suspension occurred will receive a notification of prolonged suspension from EC memberships to assist athlete in returning back to play

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Does the athlete have persistent symptoms? * >4 wks in children, >2 wks in adults

- **Yes**

- **No**

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**Return to Play**

**How:** EC Return to Play Form submitted to EC Competitions, once processed athlete is removed from Medical Suspension List by Competitions Athlete receives medically release letter
EC Accident Injury Report Form

3. Incident Description

☐ Possible head injury / concussion and medically suspended from competition

☐ Approved to Compete (Must provide explanation):

☐ Other injury:

Attending Medical Personnel (name):

Phone #:

☐ Doctor ☐ EMT / Paramedic ☐ Nurse ☐ Nurse Practitioner ☐ First Responder ☐ Veterinarian

☐ Other:
EC Sport Specific Return to Play Guidelines

• The EC Sport Specific Stepwise Return to Play Guidelines are outlined on the EC Return to Play Form. Athletes and parents can clearly see which stage is tolerated and therefore which activities should be engaged.

• Athletes and parents should also consult the Parachute Return to Learn Protocol as applicable.
EC RETURN TO PLAY FORM

<table>
<thead>
<tr>
<th>Name of athlete:</th>
<th>Date of Occurrence (DD/MM/YY):</th>
<th>Physician: Licence MD#:</th>
</tr>
</thead>
</table>

A CONCUSSION is a serious event, but you can recover fully from such an injury if the brain is given enough time to rest and recuperate. Returning to normal activities, including sport participation, is a step-wise process that requires patience, attention, and caution. Each step must take a minimum of one day but could last longer, depending on the athlete and his or her specific situation.

If symptoms reappear at any stage, go back to the previous stage until activities are tolerated for at least 24 hours. Complete the Return to Learn protocol before beginning Stages 5 and 6 of the Return to Play process.

**STEP 1: Daily activities that do not provoke symptoms**

After an initial 24-48 hours of physical and cognitive rest, gradual re-introduction of daily activities. Refrain from participating in any sporting and physical activities or physical exertion. Only indulge in activities that do not worsen symptoms.

**STEP 2: Light Aerobic Exercise, Unmounted**

Activities such as walking or stationary cycling. The athlete should be supervised by someone who can help monitor for symptoms and signs. No resistance training or weight lifting. The duration and intensity of the aerobic exercise can be gradually increased over time if no symptoms or signs return during the exercise or the next day. Sport-specific activities off of the horse such as light grooming or tacking up to ensure these are tolerated prior to getting back on the horse.

- **Symptoms?** Return to previous step. If symptoms persist, return to rest and consult a trained physician.
- **No symptoms?** Proceed to Step 3 the next day.
### STEP 3: Sport Specific Activities, Mounted - Light Flatwork

Activities such as walking or hacking can begin at step 3. There should be no jarring motions or work at speed.

- **Symptoms?**  Return to previous step. If symptoms persist, return to rest and consult a trained physician.
- **No symptoms?**  Proceed to Step 4 the next day.

### STEP 4: Begin Drills — Schooling

- **Symptoms?**  Return to previous step. If symptoms persist, return to rest and consult a trained physician.
- **No symptoms?**  The time needed to progress from non-contact exercise will vary with the nature of the concussion and type of symptoms that the athlete experiences. Proceed to Step 5 only after medical clearance.

### STEP 5: Begin Jumping/Full Training, once cleared by a physician

- **Symptoms?**  Return to previous step. If symptoms persist, return to rest and consult a trained physician.
- **No symptoms?**  Proceed to Step 6 the next day.

### STEP 6: Competition

- The athlete is completely recovered and cleared to return to active play and competition.
- The athlete does not appear to have a concussion and does not require a stepwise Return to Play process. The athlete can return to full competition immediately.

### Signature:

**Date (DD/MM/YY):**

**Physician Stamp or attached prescription pad / letterhead**
EC Areas of Focus for 2018

- General Concussion Education and Awareness
- Communication on EC Rules and Sport Specific Protocol
Questions