

Head Injuries

Head Injuries - When are they serious?



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Head Injuries: When are They Serious?

Head injuries in sport continue to be a major concern. This concern has led the [Scottish Football Association](#) to announce that they are set to introduce a ban on children under the age of 12 heading the ball in training sessions.

The ban has resulted from research demonstrating a proven correlation between [football](#) and dementia. A [report](#) has shown that former professional footballers are 3.5 times more likely to die with dementia and other serious neurological diseases.

The Scottish FAs are quick to emphasise that their ban on under-12s heading the ball in training should not lead people to assume it is therefore safe for older children. Repeated head injuries are not good for our brains! Angus Hunter from Stirling University stated that when young people head the ball it causes electrical disturbances in the brain, disruption to muscles and a reduction in memory recall. When children head the ball in training, they are repeating the event multiple times and this can adversely affect their brains.

A similar ban was put in place in the US since 2015. But Scotland would become the first European country to impose a restriction on head contact.

Dr Angus Hunter suggested that a softer lighter ball could cause less potential damage. This would reduce rates of concussions, which is far greater in children, and improve memory recall.

Old style leather footballs were particularly damaging, especially when wet.

Head Injuries: When are They Serious?



Head injuries

When people bang their heads, it can be difficult to tell whether they have done any serious damage. Most head injuries are not serious and simply result on a bump or bruise. However severe, or repeated head injuries can cause damage to the brain.

Fortunately, the majority of falls or blows to the head result in injury to the scalp only and this is more frightening than life threatening. As the head and face are served by numerous blood vessels, these injuries bleed profusely and can be very scary!

Head Injuries: When are They Serious?

Following a head injury Always check for concussion







- if in doubt, sit them out!

What is concussion?

Concussion is a **traumatic brain injury typically resulting from a blow to the head or body** which results in forces being transmitted to the brain. The symptoms can present immediately and be short-lived or the onset of symptoms may be delayed and start to occur sometime after the initial injury.

Concussion—what you need to know?

Concussion must be taken extremely seriously to safeguard the safety and long-term health of players.

<p>The majority</p> <p>80-90%</p> <p>of concussion symptoms resolve in around 7-10 days, with symptoms resolving within 1 - 2 days in around a third of cases.</p>	 <p>Most people with concussion don't lose consciousness. A concussed player can still be standing.</p>
 <p>Head guards, gum shields and other protective equipment don't protect against concussions - with any head injury think spinal injury</p>	 <p>Always warm up thoroughly prior to training or a match - this reduces the risk of injury, including concussion</p>
 <p>Concussion can occur in a game or at training.</p>	<p>The onset of the effects of concussion may be delayed for up to</p> <p>24-48 hours.</p>

The above advice is in accordance with the concussion alliance from the following sports organizations



It is very important to look out for anything unusual following a head injury as a severe bang on the head could cause swelling and damage to the brain and it is vitally important that you recognise any early and worrying signs of increased pressure on the brain.

Not sure what the signs are? We'll tell you now.

Head Injuries: When are They Serious?

First steps in the event of a head injury

If a **baby** has more than even a very minor head injury, call an ambulance immediately.

For a **child**, look out for:

- Loss of consciousness
- Intense crying
- Trouble walking
- Complains of head and neck pain

If you see these signs, **call 999 or 112**.

If the incident has occurred with a child close to bedtime or naptime and they fall asleep soon afterwards, check in every few hours and look out for twitching limbs, disturbances in colour or strange breathing.

It is perfectly fine for your child to go to sleep providing you are certain that they are behaving normally and there are no unusual signs or symptoms. There is no need to keep a child awake after a head injury.

You should always trust your instincts - if you aren't comfortable with your child's appearance, rouse your child. They should object to this and attempt to resettle. If he or she doesn't protest, try to wake them fully. If your child can't be woken, or shows any symptoms of a **brain injury**, call an ambulance immediately.

If the casualty is **not** an infant, has **not** lost consciousness, and is alert and behaving normally after the fall or blow:

Head Injuries: When are They Serious?

- Talk to the casualty and check that they are fully alert and oriented. They should know where they are and what happened.
- Apply a wrapped ice pack or instant cold pack to the injured area for 10 minutes.
- Observe them carefully for the next 48 hours. No one should go home to an empty house for the 48 hours following a severe head injury. If you notice any of the signs of brain injury (see below), phone an ambulance immediately.
- If the casualty is unusually drowsy or can't be woken, or they show any symptoms of a brain injury (see below) call an ambulance immediately. People can go to sleep following a head injury, but only if they appear to be completely alert and showing no signs of confusion, losing consciousness or any other symptoms. If worried seek medical attention immediately.



Signs and symptoms to look out for following a Head Injury

The following signs and symptoms can affect the injured immediately, but it is also possible that they take a few days to emerge. Keep a close eye on the casualty and seek medical advice if concerns arise.

Observed by others

- ▶ Appears stunned or dazed.
- ▶ Loses consciousness (even briefly).
- ▶ Is confused about events.
- ▶ Thinking and concentrating difficulties.
- ▶ Difficulties in recalling events prior to or after accident.
- ▶ Behaviour or personality changes.
- ▶ Questions are answered slowly and/or repeated.
- ▶ Has difficulty remembering things and organising themselves



Experienced by Casualty

- ▶ Headache or pressure in the head.
 - ▶ Balance problems or dizziness.
 - ▶ Nausea/Vomiting.
 - ▶ Sensitivity to light or noise.
 - ▶ Does not feel "right".
 - ▶ Blurred vision or double vision.
- ▶ Feel Dazed, sluggish, groggy or foggy.
- ▶ Difficulty concentrating or remembering
- ▶ Feeling irritable, sad, nervous or generally more emotional.
 - ▶ Sleep disturbances.

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Coaches and first aiders should be confident to:

Remove - any player who has experienced a head injury and shows any of the below symptoms should be removed from play immediately

Remember RugbySafe's mantra: IF IN DOUBT, LEAVE THEM OUT!

Recognise - learn the signs of concussion.

Only about 10% of the people experiencing concussion will actually lose consciousness. That means 90% of people who have experienced concussion will remain conscious.

Look out for the more obvious signs such as a dazed or blank expression or tonic arm extension following the blow to the head, along with the list of other symptoms.

Applying a wrapped ice pack will reduce superficial bruising and swelling – but has no effect on any brain recovery. If a severe head injury has been sustained and you are concerned about the casualty's spine; they should only be removed from the field by someone appropriately trained to do so. If worried and no one appropriate to help; reassure the casualty, support their head in a neutral position, stop the game – or move to another pitch and await removal of the casualty by paramedics.

Rest - for at least 24 hours for an adult and 48 for a child or adolescent.

Recover - ensure the player remains completely symptom free before returning to any form of play.

Return - return to play using the gradual return to activity and sport (GRAS) method.

Head Injuries: When are They Serious?

Following a head injury Always check for concussion



- if in doubt, sit them out!

The immediate do's and don'ts following a suspected concussion:

DO ✓

- ✓ Remove from play immediately.
- ✓ Get assessed by a health care professional within 24 hours of the incident to ensure that there are no significant underlying medical issues.
- ✓ Rest & Sleep – good for recovery.

DO NOT ✗

- ✗ Be left alone in the first 24 hours.
- ✗ Consume alcohol in the 24 hours and/or until symptom free.
- ✗ Drive a motor vehicle in the first hours and/or until symptom free.

Following a suspected concussion what's your role?



Coaches

- ✓ Safely remove player from the field of play.
- ✓ Observe or assign responsible adult to monitor player.
- ✓ If player is U19 and below, contact parent to inform of injury.
- ✓ Ensure player gets home safely.
- ✓ Ensure there is someone to monitor the player over the next 24-48 hours (e.g. parent or family member).
- ✓ Ensure an injury report form is completed and stored by the club appropriately. Follow the appropriate GRAS (Gradual Return to Activity and Sport). (Adult or U19 and below).



Players

- ✓ Stop playing / training immediately if you experience any of the symptoms of concussion.
 - ✓ Be honest with how you feel and report to coach or parent.
 - ✓ Inform your school / work.
 - ✓ Follow the appropriate GRAS (Gradual Return to Activity and Sport). (Adult or U19 and below).
- During training and matches always look out for teammates and encourage them to be honest and report if they experience any concussion symptoms.



Parents & Family

- ✓ Ensure you have full details of the incident.
- ✓ Get the player medically assessed.
- ✓ Monitor player for signs and symptoms of concussion for 24-48 hours.
- ✓ Encourage initial rest (both body and mind) for the first 24-48.
- ✓ Inform school / work / other sports of the suspected concussion.
- ✓ Support the player to follow the appropriate GRAS (Gradual Return to Activity and Sport). (Adult or U19 and below).

The above advice is in accordance with the concussion alliance from the following sports organizations

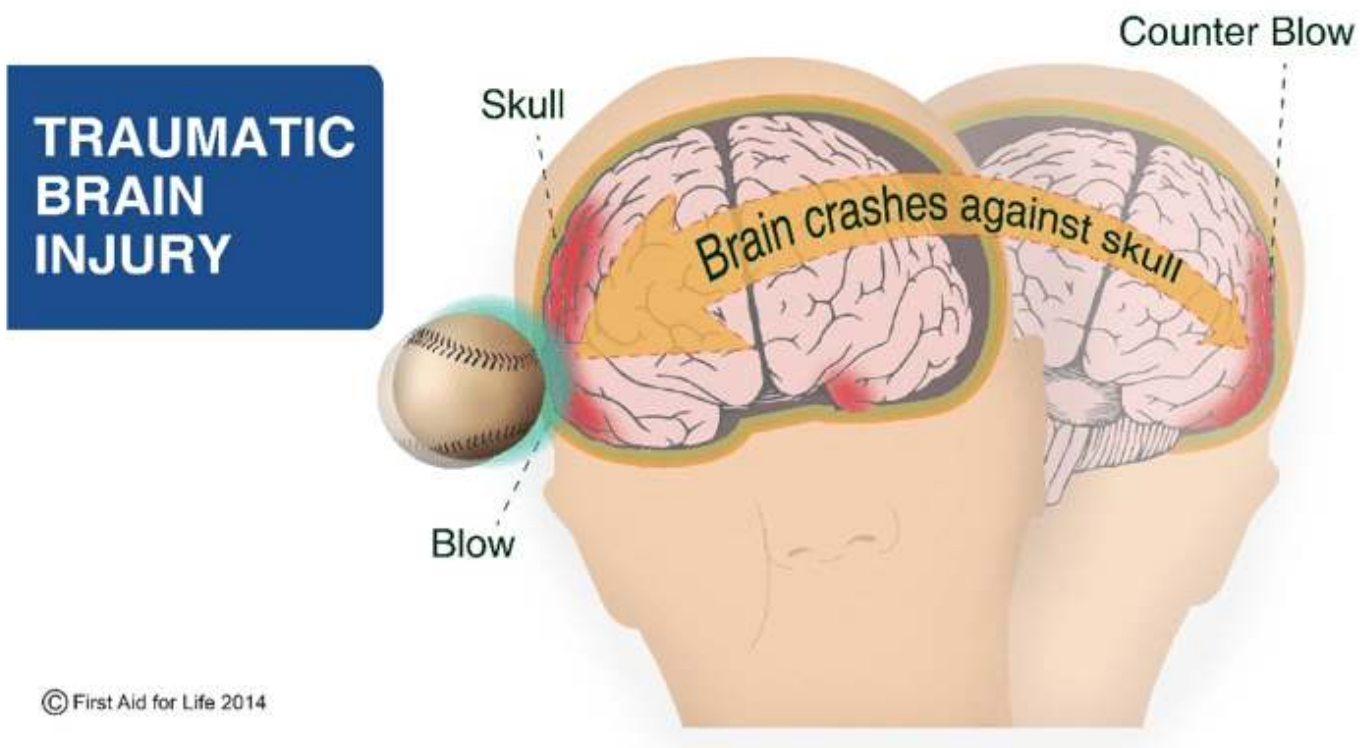


Head Injuries: When are They Serious?

Suspected brain injury

The brain is cushioned by cerebrospinal fluid, however a severe blow to the head may knock the brain into the side of the **skull** or tear blood vessels.

It can be difficult to determine the level of injury, so it's always wise to discuss a **head injury** with your doctor. A clear indicator of a more serious injury is when someone loses consciousness or has signs of confusion. These symptoms can come on at any time from immediately after the accident to a couple of days later. If it is a child that is injured it is sensible for them to sleep in the same room as you for a couple of nights following a head injury.



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Head Injuries: When are They Serious?

Symptoms after a head injury might include:

- Loss of consciousness
- A persistent headache
- Seizures
- Dilation of pupils
- Fluid coming out of the nose or ears

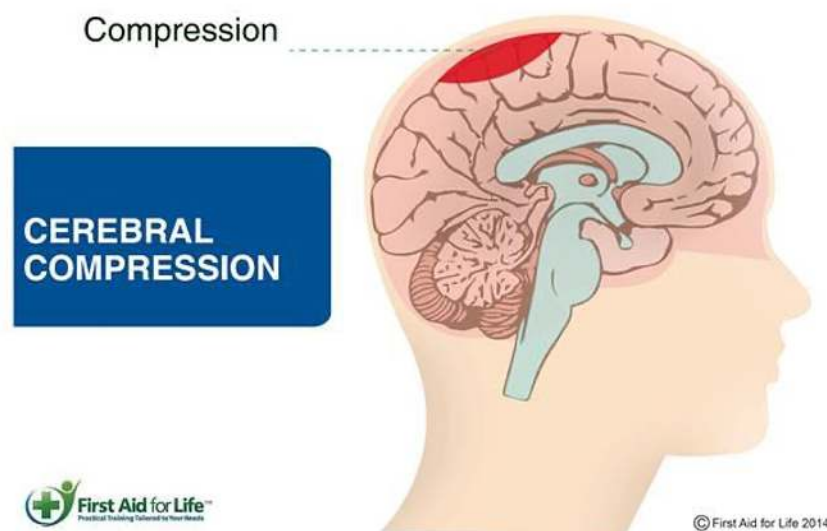
If you see any of these symptoms, **call an ambulance**.

Compression and concussion

Compression

If the brain is injured, it will swell and may bleed, as with an injury to any other part of the body. However, because the brain is contained within the skull, it can only press against other parts of the brain and against the spinal cord. This results in compression of these vital organs and can be fatal.

Compression can happen almost immediately, or up to 48 hours after the head injury; even longer if they hit their head again.



Head Injuries: When are They Serious?

Concussion

A concussion is a reversible form of brain injury.

Following a severe blow to the head, it is usual to experience:

- Pain
- Possible short-term memory loss
- Dizziness
- Confusion

Someone with concussion should always be monitored to check for signs of compression. If you see anything unusual at all or are worried about their condition, you should phone for an ambulance. **Trust your instincts.**

Do not leave anyone who has had a severe head injury on their own. They should have a responsible adult with them who understands the signs of brain injury and what to look out for.

When looking after children, you should ensure that all carers are aware that the child has hit their head. The child should ideally sleep in the same room as their parents for the next couple of nights.

Head Injuries	
Concussion – Get Medical advice	Compression – 999/112 immediately
Could be unconsciousness for a short period and then recovers quickly.	Head injury : may appear to recover, but then deteriorates. Can happen immediately or up to 48 hours after
Short term memory loss (particularly of the incident). Could be confused and irritable.	Levels of response become worse as condition develops
Headache.	Intense headache.
Pale, clammy skin.	Flushed, dry skin.
Shallow / normal breathing.	Deep, noisy, slow breathing. (Pressure on the respiratory centre in the brain)
Rapid, weak pulse. (Blood diverts away from the extremities)	Slow, strong pulse. (Caused by raised blood pressure)
Normal pupils, reacting to light.	One or both pupils dilate as pressure increases on the brain.
Possible nausea or vomiting on recovery.	Condition becomes worse. Could start fitting. Call an ambulance

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Skull fracture

You should suspect a skull fracture if:

- They have watery blood coming from their ears or nose
- They have bruising around their eyes, or behind an ear
- There's an open wound on their head

If they are conscious:

- Keep them as still as you can and don't let them twist as they could also have a spinal injury
- Call emergency services immediately

If they are unresponsive and breathing normally:

- Put them in the recovery position
- Protect their spine and do your best to not let them twist
- If they are unconscious and not breathing, start CPR

When to call an ambulance

Call an ambulance if someone shows any of these symptoms:

- Unconsciousness
- Abnormal breathing
- Obvious serious wound or suspected skull fracture
- Bleeding or clear fluid from the nose, ear, or mouth
- Disturbance of speech or vision
- Pupils of unequal size
- Weakness or paralysis
- Dizziness
- Neck pain or stiffness
- Fitting
- Vomiting more than two to three times - it is not unusual for children to vomit immediately after an accident as a response to pain, so do not panic if an injured child is sick just once after a head injury.

What to do if someone is unconscious:

- If they are breathing – roll them into the [recovery position](#) (on their side so that their tongue falls forward in their mouth and any vomit can drain away), trying not to twist their neck or spine at all. Any head injury could have caused spinal damage as the head recoils from the blow.
- If they are not breathing start [CPR](#).
- Call for an ambulance.

Sports head injuries: when to play on

We have all witnessed the inevitable clash of heads during a match. It is often difficult for the coach and match officials to know exactly what to do. This uncertainty is compounded by the player, who may hide the extent of their injury in order to be allowed to play on.

There has been considerable research demonstrating the correlation between football and dementia. Former professional footballers are 3.5 times more likely to die with dementia and other serious neurological diseases.

The RFU guidance makes it easier for everyone to do the right thing and ensure the player has every opportunity to make a full recovery. This section is written in accordance with the latest guidance from the RFA, England Rugby, and the NHS, as of September 2023.

Initial symptoms of concussion – in football and rugby the most common symptoms that you may see on the pitch are the following:

- Loss of consciousness
- Slow response time
- Incoordination
- Grabbing, clutching head
- Vomiting
- More emotional than usual
- Tonic posturing - the player might lie rigid or motionless because of muscle spasms

Head Injuries: When are They Serious?

There are other symptoms that you might need to ask the player about:

- Headache
- Blurred vision
- Fatigue
- Drowsiness
- Memory impairment
- Sensitivity to light or sound
- Difficulty concentrating
- Nausea
- Dizziness

Concussion can also affect someone's mood, balance, sleep, thinking, concentration and senses. Most symptoms resolve in 7-10 days and many much sooner.

- Don't make things worse – important to take seriously and rest
- Do not risk injury again
- Rest your brain = lots of sleep, avoid reading, screens and sports for at least 24 hours / 48 hours

Children and adolescents may need one or 2 days off school and a gradual return to academic study. They can start light reading and small amounts of screen time but should monitor and stop if there are signs of any recurrence of symptoms.

At least 2 weeks with no training to give the brain a chance to fully recover.

Head Injuries: When are They Serious?

If there are no symptoms, players can then start the **gradual return to activity and sport - GRAS**

- 24 hours per stage (48 hours for children and adolescents) – go back a stage if symptoms occur
- Light aerobic exercise
- Sport specific exercise
- Non-contact training
- Full contact practice

19 days is the earliest that an adult can return to play

23 days is the earliest that a child or adolescent can return to play

Following a head injury Always check for concussion



- if in doubt, sit them out!



Recognise & remove

Anyone with a suspected concussion must be immediately removed from play

A player should stop playing/training and not return if they:

- ❑ Lose consciousness or responsiveness
- ❑ Are slow to get up
- ❑ Are unsteady on their feet
- ❑ Clutch their head
- ❑ Have a blank or vacant look
- ❑ Look dazed/ Confused

One or more of the following symptoms are present:

- ❑ Headache
- ❑ Seizure or convulsion
- ❑ Dizziness or balance problems
- ❑ Confusion
- ❑ Difficulty concentrating
- ❑ Nausea or repeated vomiting
- ❑ Weakness, tingling/burning in arms or legs
- ❑ Blurred vision, sensitivity to light
- ❑ Irritable or change in mood
- ❑ Difficulty remembering or amnesia
- ❑ Neck Pain
- ❑ "Don't feel right"
- ❑ Drowsiness / fatigue

Red Flags

If ANY of the following are reported or develop, medical attention should be sought as a priority (e.g., consider calling an ambulance)

- ❑ Deteriorating conscious state
- ❑ Severe or increasing headache
- ❑ Unusual behaviour change
- ❑ Double vision or deafness
- ❑ Increasing confusion or irritability
- ❑ Repeated vomiting
- ❑ Seizure or convulsion
- ❑ Weakness or tingling/burning in arms or legs
- ❑ Severe neck pain



Players suspected of having concussion should be removed from play and should not participate any further in the match or training session



All players suspected of having concussion should be assessed by a Healthcare Professional

The above advice is in accordance with the concussion alliance from the following sports organizations



Gradual Return to Activity and Sport



Following a head injury

Always check for concussion

On the day of the accident you should have complete body and brain rest for minimum 24 hours – so no reading, TV, screen time

STAGE 1

First 24-48 hours

- Very little activity.
- Try and keep activity to 10-15 minute slots.
- Minimise screen time.



STAGE 2

Week 1

- Increase mental activity
e.g. books, games.
- Light aerobic activities
e.g. easy house chores.
- Rest if symptoms are increasing.



STAGE 3

Weeks 1 or 2

- Add in school activities.
- Walk/cycle for 10-15 minutes.
- No high intensity training.
- Go at a pace where you can speak in short sentences.



STAGE 4

Week 3

- Start thinking about a return to school.
- Light aerobic activities.
- Briefly rest if symptoms are increasing.



DURING STAGES 3-4

Complete the RFU's online concussion module
This can be done by parent, coach, teacher,
and older children.

Only continue to stage 5 if student has been
checked by a medical professional

STAGE 5

at earliest day 21

- Return to school.
- Normal training, including those with risk of head impact.
- Immediately remove from play if symptoms return.
- Before progressing to stage 6, see a GP.



STAGE 6

at earliest day 21

- Return to play.



First Aid for Life provides a free GRAS form to easily track recovery. Please email us at emma@firstaidforlife.org.uk to receive one.

Head Injuries: When are They Serious?

Recovery time is vital

It may take 4-6 weeks before a player is fully fit and back to competitive play. This may seem a long time away from the game. However, it is comparable to the recovery time following a soft tissue injury and your brain is so important to every aspect of life, that it is vital we take head injuries seriously.

The RFU have a superb online training course specific to parents, players, teachers and coaches. <http://www.englandrugby.com/my-rugby/players/player-health/concussion-headcase/>

The Football Association have the following:

<http://www.thefa.com/get-involved/coach/concussion>

It is strongly advised that you attend a Practical First Aid course to understand what to do in a medical emergency. Please visit firstaidforlife.org.uk or call 0208 675 4036 for more information about our courses.

Onlinefirstaid.com have developed unique on-line first aid training to allow you to learn these vital skills at a time and place that suits you.

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You can book an in person course here: <https://firstaidforlife.org.uk/>