

Concussion



Dr Sarah Williamson

Time to see what you know already...

- Phones out!
- Scan the QR code
- Input up to 3 answers – its anonymous!!
- I do not mind about your spelling



Concussion: What is it?

Not classified as a structural injury



Concussion is defined as any *transient neurological disturbance in brain function* caused by biomechanical force/trauma (Ferry, 2022; Chancellor *et al.*, 2019; Giza and Hovda, 2001)

Caused by a direct or indirect blow to head - causing the brain to shake

Is a subset of minor traumatic brain injuries (mTBI) (Ferry, 2022)

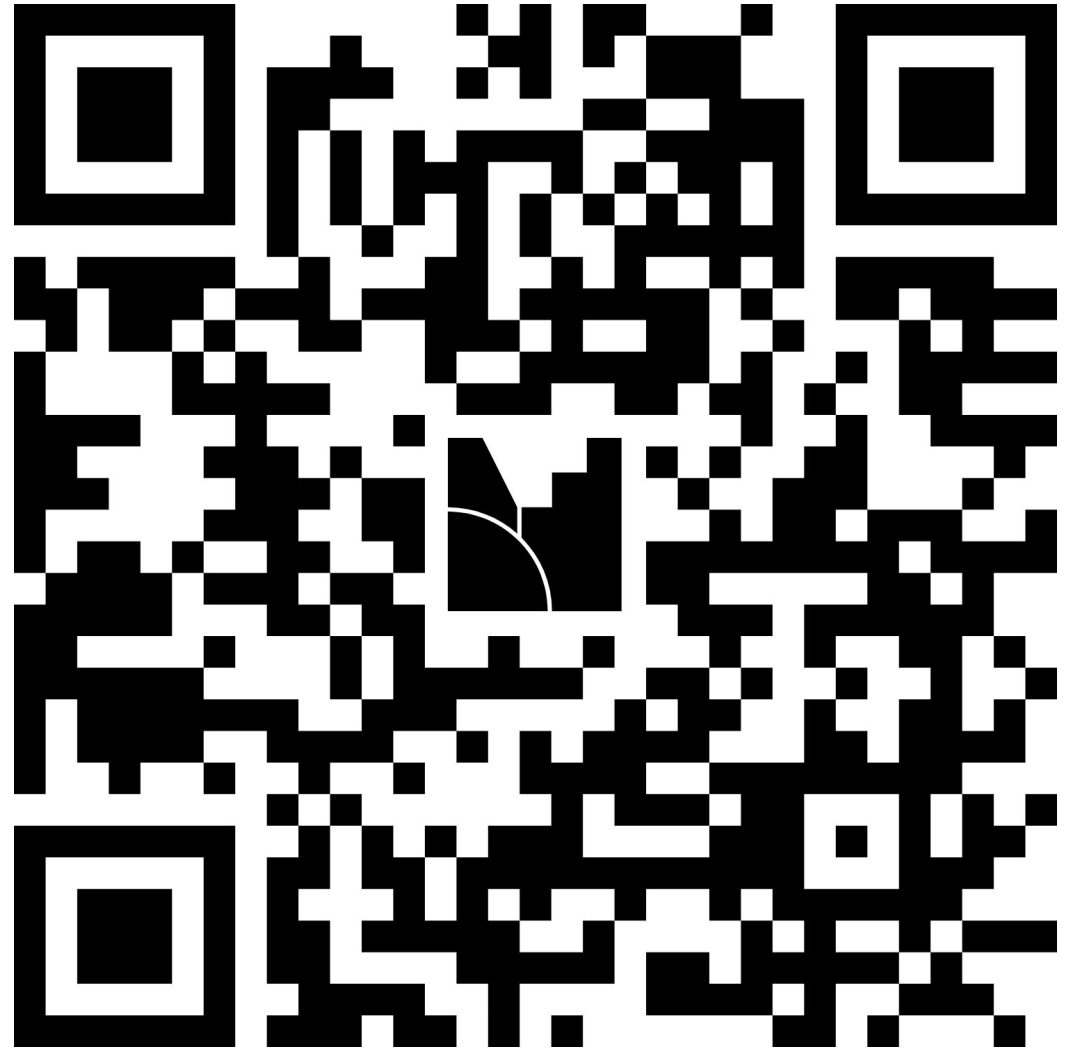
A microscopic image of a neuron, likely a pyramidal neuron, with a prominent starburst impact on its cell body. The neuron is stained in a dark green color, and the background is a lighter green. The impact is a bright, star-shaped burst of light emanating from the cell body, suggesting a point of trauma or damage. The dendrites and axon are visible, extending from the cell body.

HOW CONCUSSIONS IMPACT THE BRAIN

NEUROSCIENCE ANIMATION

Concussion: Signs & Symptoms

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One pupil dilated more
than the other

Nausea/vomiting

Loss of consciousness

Tonic Posturing

Headache

Confusion

Sadness

Not feeling right

Feeling in a fog

Pressure in the head

Feeling slowed down

Balance problems

Trouble falling asleep

Neck pain

Difficult concentrating

Blurred vision

Feeling dazed

Sensitivity to noise

Sensitivity to light

Memory loss

Dizziness

More emotional/irritable

Double vision

Pale, clammy skin

Nervous or anxious

Fatigue or low energy

Drowsiness



The Deadly Truth...

What would you do if you broke your leg?

A concussion will leave you vulnerable to further injury, including your brain

A single symptom is enough to warrant a removal from play

Post concussive syndrome is not your friend

Concussion can take 0 – 72 hours to appear

It can kill you if not treated with respect

BEN'S LEGACY



Future Implications...

Multiple concussions can lead to severe adverse conditions, including brain pathologies in later life

These include (but not limited to):

- Parkinson's disease
- **Alzheimers/dementia**
- Chronic Traumatic Encephalopathy (CTE)
 - MND?

What should I do?



Remove yourself
from the game – you
only get 1 brain!



Get yourself checked
out – hospital or
urgent care



Speak to the first
aider at the game



Ensure you follow
the guidelines to
return to sport



Drop into the Sports
Injury Clinic

What should I not do?



Stay silent

Hide it and carry on playing – be open and honest



Drive

Drive – You should not drive for a minimum 24 hours post concussion



Drink

Drink – No alcohol consumption for a minimum 24 hours post concussion



Pain Relief

Take painkillers

Graduated Return to Activity & Sport (GRAS)

The GRAS is a stepwise process

6 stages to return to play safely

Guidelines available online; You can come into clinic to be supervised through these stages



Graduated Return to Activity & Sport (GRAS)

If any symptoms reoccur, then the athlete must drop back to the previous stage in the stepwise programme where they were asymptomatic

They can "reattempt" to progress again after 24-hours of rest have passed

All stages must be completed before the athlete RTP – minimum RTP is 21 days, providing the athlete has been symptom free for 14 days




Take home messages

You only get 1 brain!

If in doubt – sit out

Significant head injuries signal a medical emergency
in a sporting context

Concussion can kill if ignored



Complete the
GRAS Stages to
return to sport
safely