

# 5

## facts about physiotherapy and sports-related concussion



### 1

#### The definition of concussion has evolved over time



A concussion is a transient neurological impairment caused by a direct or indirect head impact. Symptoms and signs:

- can present immediately or evolve over minutes to hours
- may include adverse balance and cognitive effects
- commonly resolve within days but may be prolonged.

### 3

#### Concussion pathophysiology is not fully understood

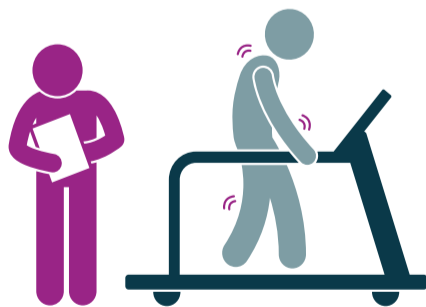


After impact, a cascade of events causes abnormal function at the cellular level, including:

- structural damage due to force of impact
- altered blood flow to the brain, affecting metabolism
- dysregulation of neurotransmitters
- neuroinflammation.

### 5

#### Physiotherapists' can Physiotherapy plays an important role in prevention and management



Physiotherapists contribute to concussion management by:

- recognising suspected concussion in athletes following injury and removal from field of play
- providing guidance on a graded return to sport
- conducting a clinical review of complex cases with prolonged symptoms and recovery
- providing appropriate rehabilitation for vestibular and/or oculomotor dysfunction.

### 2

#### Women are at higher risk of concussion



Women experience worse outcomes from concussion. Factors may include:

- a lower biomechanical threshold tolerance for head impacts
- lower neck strength, resulting in greater head acceleration during impact
- the effect of progesterone levels at the time of injury.

### 4

#### Clinical features of concussion can vary widely



There is no 'typical' concussion and diagnosis can be challenging. Rapid screening on the field is triggered when an athlete:

- experiences a direct or indirect head impact
- shows visible signs of concussion
- reports symptoms
- is suspected of having had a concussion/concussion event.

Sponsored by:



Proudly brought to you by:



Physiotherapy  
Research  
Foundation