

GCSE Physical Education – Performance-enhancing drugs, injury and prevention

Injury prevention – to prevent injury performers and coaches should recognise and identify risks and reduce them.



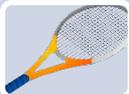
Using the right principles of training to overuse injuries



Understand and following the rules of the sport during play



Using appropriate protective clothing



Checking the equipment to make sure it is in good condition and age appropriate



Following a full warm up and cool down



Checking the facilities



Ensuring competition is balanced

Performance Enhancing Drugs (PEDs)

The rewards that come with winning are so great that athletes are increasingly tempted to cheat. Fame, money and pressure are commonly cited despite the health risks or even death.

Drug	Reason for athlete taking this	Health risk	Sporting example who might use it
Beta Blockers	Slows heart rate, calms and steadies hands	Lowers blood pressure and oxygen delivery to muscles	Target sports 
Anabolic Steroids	Promote muscle growth and promotes a faster recovery time	High blood pressure, aggressive behaviour & develops male features	Power Events - 100m 
Stimulants	Increased alertness and reduce tiredness	Heart rate irregularities & increased aggression.	Boxing 100m sprinter
Diuretics	Rapid weight loss from removal of fluids. Masks other PEDs	Dehydration, nausea and headaches. Heart and kidney failure.	Jockey Boxing 
Peptide Hormones	EPO – increase Red Blood Cell production Growth Hormone – increase muscle mass	Increased blood thickness/blood clot Abnormal growth	 

Blood doping – a method of artificially increasing red blood cell count – increases endurance.

Injuries

Soft tissue injuries

Strain – Twist or tear to a muscle or tendon.

Sprain - Twist or overstretch to a ligament.

Treatment for strain and sprain = **RICE** (Rest, Ice, Compression, Elevation) for 24 - 48 hours.



R – **rest** the injured part.



I - Apply **ice** to reduce the swelling for a maximum of 10 minutes.



C – **Compress** the injured area using a bandage.



E – **Elevate** the injured part to decrease the blood supply.

Head Injury

Concussion – An injury to the brain caused by a knock to the head.

Common in contact sports. If an athlete is concussed, they may:

- Become unconscious.
- Feel sick, dizzy or drowsy.
- Get confused, stare & suffer memory loss.



Spinal Injury

A serious and painful injury to the spine. This could be paralysing or fatal. This may occur during a rugby scrum or falling off a horse.

Fracture – a broken bone.

Open/compound/complex fracture – bone through the skin

Closed/simple fracture – bone remains in the skin.

Greenstick fracture – bone bends (younger children)

Stress fracture - repeated or prolonged forces against the bone



Dislocations - a sudden impact to a joint can cause the bones that meet to become disconnected or moved out of place.



Blisters

These are caused through friction and rubbing e.g. on footwear. Fluid is released under the skin to form a protective layer. The swelling becomes painful.

