

# NCFE Health and Fitness Level 1/2 – 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
<b>Beta Blockers</b>	Slows heart rate, calms and steadies hands	Lowers blood pressure and oxygen delivery to muscles	Target sports
<b>Anabolic Steroids</b>	Promote muscle growth and promotes a faster recovery time	High blood pressure, aggressive behaviour & develops male features	Power Events - 100m
<b>Narcotic Analgesics</b>	Masks pain and increase pain threshold	Vomiting, addiction and liver/kidney damage	Any athlete wanted to mask pain.
<b>Diuretics</b>	Rapid weight loss from removal of fluids. Masks other PEDs	Dehydration, nausea and headaches. Heart and kidney failure.	Jockey  Boxing
<b>Stimulants</b>	Increased alertness and reduce tiredness	Heart rate irregularities & increased aggression.	Boxing  100m sprinter
<b>Peptide Hormones</b>	<b>EPO</b> – increase Red Blood Cell production <b>Growth Hormone</b> – 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** – Pulled or overstretched muscle.

**Sprain** - Twisted or wrenched ligament.

Treatment for strain and sprain = **RICE** (Rest, Ice, Compression, Elevation)



**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.

**Golfers Elbow/Tennis Elbow** – overuse injury caused by inflamed tendons that attach muscles to the elbow joint. Symptoms also include soreness and pain.

**Abrasions** – minor injuries to the surface of the skin. *i.e. a graze*. Symptoms are a hot/burning sensation, redness and occasionally some light bleeding. Treatment – clean and cover with a low adhesive dressing.

**Torn Cartilage** – This can occur when a joint is twisted excessively. This is commonly caused when players change direction quickly. Treatment – ice and surgery

**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.



**Dislocation** - a sudden impact on a joint can cause the bones that meet to become disconnected.



**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



