

# Component 1 How to Optimise Training and Prevent Injury

## Injury prevention:

Injury prevention	Explanation
<b>PAR-Q</b>	Identify potential health risks such as high blood pressure
<b>Allow recovery time</b>	Prevent overuse injuries by allowing time to rest and recover
<b>Warm-up</b>	Increases elasticity of muscles
<b>Use correct clothing</b>	Clothing can protect different parts of our body
<b>Apply the rules</b>	Rules are there to protect performers from injury
<b>Use correct equipment</b>	Equipment should be checked and appropriate for the age group
<b>Check Equipment</b>	Equipment should be checked so that faulty or inappropriate does not cause injury
<b>Check facilities</b>	Facilities should be checked and to remove obstacles from the playing area
<b>Apply principles of training</b>	Ensure you use progressive overload and are working at the correct intensity & allow rest
<b>Balanced competition</b>	Competition should be balanced in age, weight, skill and sex

## Application

**Check Equipment**  
When playing plays must check the correct equipment such as padded goal posts. The padded posts reduce the chance of injury if a player runs or fall into them

**Correct Clothing**  
Player wears a gum-shield to protect their teeth

**PAR-Q**  
Before the player trains they will fill in a PAR-Q to highlight any health problems

**Allow Recovery Time**  
After the match the player will rest to allow recovery and adaption. This prevents overuse injuries

**Apply the Rules**  
Player are not allowed to tackle above the shoulder this prevents injuries to the head such as concussion

**Use Correct Equipment**  
Players should use the correct sized and weight of ball to reduce the chance of injury

**Warm-Up**  
Player warms up before they play to ensure the elasticity of muscle so they are less likely to pull or stain them

**Check Facilities**  
Before you play obstacles such as broken glass should be removed from the pitch

**Balanced Competition**  
Player will only play against his own age, sex, ability

**Apply Principles of Training**  
Players should use the correct sized and weight of ball to reduce the chance of injury



## Fractures:

Compound	Simple	Greenstick	Stress
Compound or open fractures are when the bone is broken and causes the skin to break	Simple or closed fractures are when the bone is broken but does not break the skin	Greenstick fracture is where the bone breaks at one side and bends on the other. They are common in children	Stress fractures is where there is a small crack in the bone usually caused through overuse
<b>Symptoms</b>		<b>Treatment</b>	
<ul style="list-style-type: none"> <li>Pain</li> <li>Bruising</li> <li>Swelling</li> <li>Misshapen limb</li> </ul>		Need to be treated by a doctor who will make sure the bone is properly aligned and immobilised until it has healed	
A fracture is caused when a force on the bone is greater than the bone itself. A fracture can be caused by a tackle in rugby, or falling from a height in basketball			

## R.I.C.E.

<b>1. Rest</b> 	Do not use the injured area, allowing time to heal and to prevent further damage
<b>2. Ice</b> 	The cold from the ice will help reduce swelling and pain by constricting the blood vessels. Do not apply ice directly onto the skin and not for too long
<b>3. Compress</b> 	Apply a bandage to the area to help reduce swelling and provide support. Make sure the bandage is not too tight
<b>4. Elevate</b> 	Keep the affected area raised to reduce swelling by reducing the blood flow

## Injuries:

Sprain		
	A sprain is a soft tissue injury where some of the fibres of the ligament are torn	<b>Symptoms</b> <ul style="list-style-type: none"> <li>Pain</li> <li>Bruising</li> <li>Swelling</li> </ul>
<b>Treatment</b> <ul style="list-style-type: none"> <li>Rest</li> <li>Ice</li> <li>Compression</li> <li>Elevation</li> </ul>		
A sprain can occur during a twisting or overstretching the joint		
Strain		
	Strains are a soft tissue injury and is a stretch or tear to the muscle. Sometimes known as a pulled muscle	<b>Symptoms</b> <ul style="list-style-type: none"> <li>Pain</li> <li>Bruising</li> <li>Swelling</li> </ul>
<b>Treatment</b> <ul style="list-style-type: none"> <li>Rest</li> <li>Ice</li> <li>Compression</li> <li>Elevation</li> </ul>		
A strain occurs due to overstretching		
Tennis/Golfers Elbow		
	Tennis/golfers elbow is a joint injury where the tendons are inflamed. Tennis elbow the pain is felt on the outside of the elbow. Golfers elbow the pain is felt on the inside	<b>Symptoms</b> <ul style="list-style-type: none"> <li>Pain</li> <li>Swelling</li> </ul>
<b>Treatment</b> <ul style="list-style-type: none"> <li>Rest</li> <li>Ice</li> <li>Compression</li> <li>Elevation</li> </ul>		
Tennis and golfers elbow are caused by overuse		
Torn Cartilage		
	Cartilage acts as a cushion at the ends of bones. Torn cartilage is an injury where small tears appear in the cartilage	<b>Symptoms</b> <ul style="list-style-type: none"> <li>Pain</li> <li>Swelling</li> <li>Stiffness at the joint</li> </ul>
<b>Treatment</b> <ul style="list-style-type: none"> <li>Rest and strengthening exercises</li> </ul>		
Torn cartilage can happen when you twist forcefully, sudden impact/stopping		
Abrasions		
	Abrasions are minor injuries to the skin and include cuts and grazes	<b>Symptoms</b> <ul style="list-style-type: none"> <li>Pain</li> <li>Swelling</li> </ul>
<b>Treatment</b> <ul style="list-style-type: none"> <li>Abrasions must be cleaned &amp; covered with a sterile dressing. Pressure should be applied if bleeding</li> </ul>		
Abrasions can occur in any activity due to a knock or a fall		
Concussion		
	Concussion is a mild head/brain injury. It is caused by a blow to the head or by whiplash shaking the brain inside the skull	<b>Symptoms</b> <ul style="list-style-type: none"> <li>Confusion</li> <li>Dizziness</li> <li>Unconsciousness</li> <li>Nausea</li> </ul>
<b>Treatment</b> <ul style="list-style-type: none"> <li>Seek medical advice and monitor closely to make sure the symptoms do not get worse</li> </ul>		
Concussion is common in contact sports such as rugby when getting tackled		
Dislocation		
	Dislocation is where one of the bones at a joint comes out of place, e.g. shoulder, knee, finger	<b>Symptoms</b> <ul style="list-style-type: none"> <li>Pain</li> <li>Misshapen joint</li> <li>Swelling</li> </ul>
<b>Treatment</b> <ul style="list-style-type: none"> <li>Seek medical advice because of possible damage to surrounding nerves</li> </ul>		
Dislocations are often caused by a fall or a blow to the area.		