

## 6. Injury Management

### Objectives

- (1) To be cognizant about possible injuries.
- (2) To understand preventive measures of injuries.
- (3) To be aware of the injury management techniques.
- (4) To understand need of appropriate sportswear and protective materials.

Injuries are a possibility during sports practice or competitions and the reason for these injuries could be many. There are two forms of injuries, according to nature of injury.

#### 1. Minor injuries

Player can play in this type of injuries

#### 2. Major injuries

Player cannot continue play with major injuries and continuing play could be dangerous. Such injuries can be avoided with care and taking precautionary measures.

### Precautionary measures to avoid injuries

(1) **Fitness** : To achieve a level of performance the player needs an inherent ability. With fitness the player can exhibit a worthy performance. During practice or competitions if the fitness levels of the player is excellent, then injuries can be avoided.

(2) **Warm up and Cool down** : Appropriate and adequate warm up prepares the complete body for further activities. Muscles, bones and joints reach optimum performance capacity and so, any

shock to the muscle and joints is protected by the body's appropriate response thus avoiding injury. Cooling down exercises reduces harmful substances like lactic acid which accumulates in the body during training. Cool down exercises improves blood circulation and provides maximum oxygen to the body. The body recovers quickly and avoids injuries like muscle cramps and muscle pain.

(3) **Psychological preparation** : If a player of any game is not psychologically prepared, then the chances to cause injury to self and others during play is greater. Psychological preparation assists the player in quick and appropriate decision making, maintaining proper body and retention proper movements that help avoid injury.

(4) **Climatic conditions** : Practice and competition environments need to be as similar as possible. A difference in them, drastically affects performance of the body. Extreme cold, extreme warmth or places having greater air resistance, all adversely affect performance.

(5) **Appropriate sportswear and protective material** : The sportswear should not be too loose or too tight. Avoid sportswear that is obstructive to playing. Avoid the use of damaged and broken equipment. Certified sports equipment should be used to avoid injuries.

(6) **Abide by the rules** : Strictly adhering to the rules of the game by players and spectators during practice and

competition can help avoid possibility of injury and help exhibit the game safely.

**(7) Fatigue :** Extensive competition and practice sessions that lead to fatigue should be avoided. Fatigue may cause injury to joints, muscles and organs in the body. Play or practice should be stopped when experiencing fatigue.

**Basic awareness about the cause of injury during practice or competition is essential for players to reduce injury.**

**Types of Sports injuries :**

**Generally, three types of injuries occur in sports**

1. Soft tissue (skin) injuries
2. Joint injuries
3. Bone injuries

### **(1) Soft tissue (Skin) Injuries**

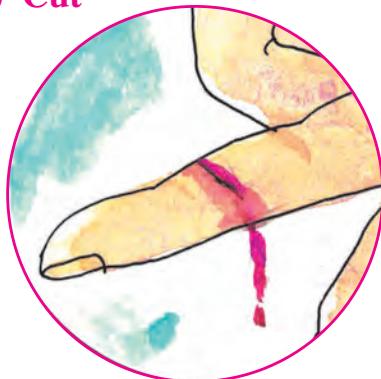
**A) Scrape**



**B) Bruises**



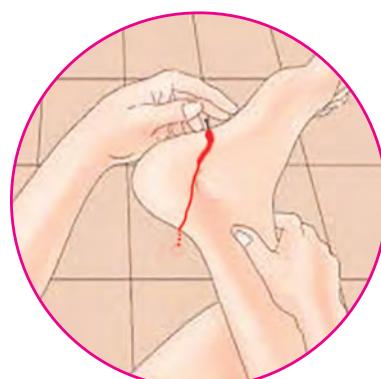
**C) Cut**



**D) Sprain**



**E) Prick**



**F) Punch**



## (2) Joint injuries

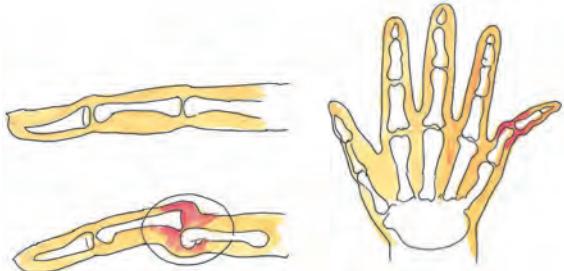
### A) Partial dislocation



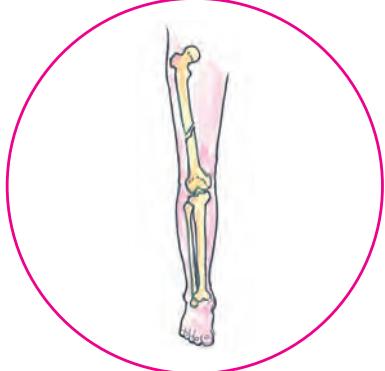
Basic Position



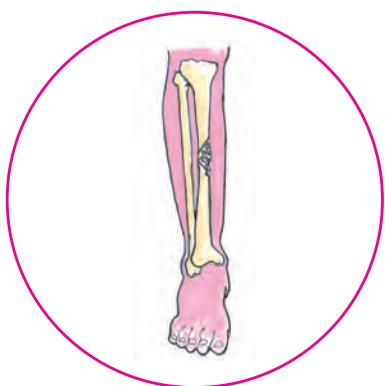
### B) Complete dislocation



### C) Oblique fracture

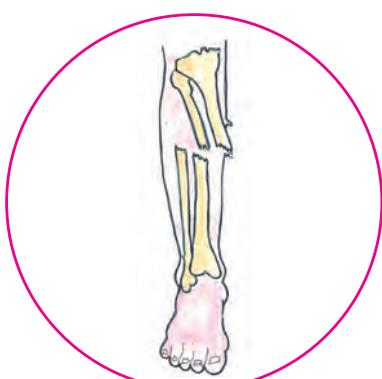


### D) Comminuted fracture

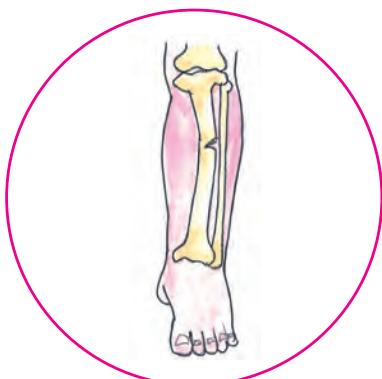


## (3) Bone injuries

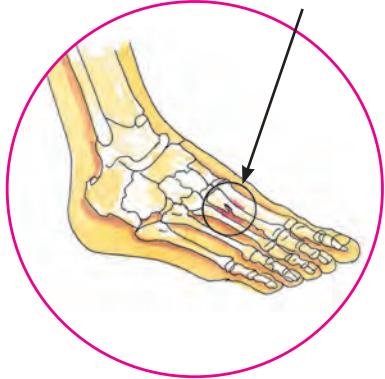
### A) Compound fracture



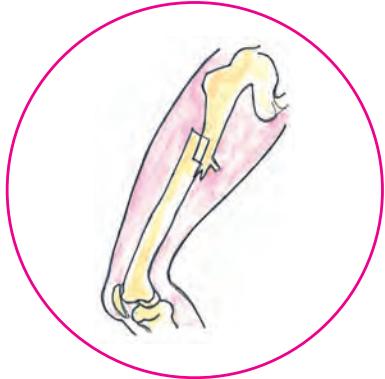
### B) Greenstick fracture



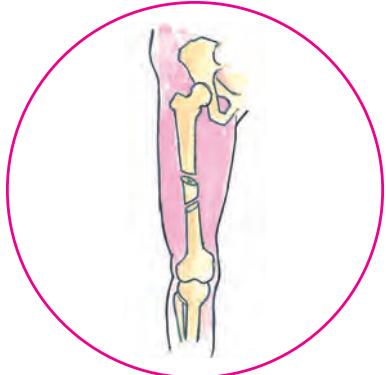
### E) Fracture of the metatarsal bone due to stress.



### F) Compression fracture



## G) Segmental fracture



### Injuries from games or sports when appropriate care is not taken

Game	Types of injuries
Tennis	Injuries to elbow, knee, leg
Boxing	Injuries to the face, brain and fingers
Diving	Injuries to head
Fencing	Face injury
Weight lifting	Shoulder, back and spine injury
Throwing events	Injuries to shoulder and elbow
Basket ball	Fingers and shoulder injury
Rafting	Injury to nerves
Horse riding	Back and spine injury
Games on ice, Kabaddi, Kho kho	Injuries to hands and legs

Training for long durations or constant participation in competitions can cause defect leading to injuries to the body.

### First aid

Many a times, players get injured while playing or practicing. On such occasions, expert help may not be at hand and so, appropriate and immediate remedial measures need to be taken. This immediate remedial measure is first aid.

### Goal of first aid

1. To help casualties
2. To reduce distress in them
3. To save life

### Motive of first aid

To provide appropriate first help to the victim or casualty before getting access to a doctor or hospital.

### Importance of first aid

In normal day to day life or in the life of a sports person, accidents can take place. Every individual should be aware of the first aid and how it needs to be imparted. Moreover, there is greater need amongst the sports teachers, trainers and sports persons to generate awareness about first aid.

### Injury management

#### 1. Soft tissue injury management and rehabilitation.

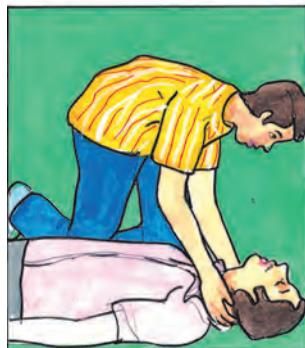
- Rest the injured body part.
- Place an ice pack on the injured part for 20 to 30 minutes.
- Do not massage the injured body part for 48 hours.
- Clean the wound and bandage it to stop blood flow.
- Give cold compression to avoid and reduce swelling.
- Use pain killer medicines or spray to reduce pain.
- For support use safe and sturdy equipment.
- Visit the doctor for proper and complete treatment.
- Give appropriate rehabilitation exercises for the injured part till full recovery and retrieval of complete mobility.

#### 2. Joints injury management and rehabilitation

- If possible, reset the dislocated joint with mild hands.

- Keep the patient in restful position and avoid movement of injured part.
- Give cold compression to injured part to reduce swelling.
- Use or tie a support bandage to injured joint and take to the doctor.
- Evaluate the injury using Arthroscopy or X-ray.
- Plaster the joint for a duration as prescribed by the doctor.
- Get operated if required.
- Perform prescribed exercises for recovery and strengthening of muscles around the injured joint.

- First ensure personal safety.
- Call out to the victim and check for response.
- Call out to others for help.
- Dial 108 for ambulance.



**Arousing**



**Calling for help**

### 3. Bone injury management and rehabilitation

- Stop movement of the injured part.
- Support the injured bone with flat wooden scale or object.
- Immediately take injured person to hospital.
- Examine the position and type of fracture using bone scan or X-ray.
- Realign the broken bone through surgery
- Plaster the affected area for a duration as prescribed by the doctor.
- Under the direction of the doctor, include movements and regular isometric exercises as prescribed.

#### Check breathing

- Examine if victim is breathing
- If victim is not breathing kneel down to his side.
- Tilt the head backwards.
- Raise the chin upwards.
- Wipe and clean mouth to clear the breathing pathway.



**Checking for breath**



**Raising chin**

#### Chest compression at the rate 100 per minute

- Spread and keep left hand palm on the centre of the chest
- Place right hand palm over the left hand and interlock fingers between them. Bend over the victim from the waist and without bending at the

### Cardiopulmonary Resuscitation (CPR)

#### Note :

CPR is an emergency lifesaving first aid method. Before using this technique take the guidance of experts having in-depth knowledge and training

- Try to arouse the victim, call for help.



### Pressing and releasing chest with both hands

#### Exercise

#### Q.1. Write answers.

- (1) What is injury?
- (2) What are the preventive measures to avoid injury?
- (3) What is meant by first aid?
- (4) Classify the injuries under the two categories given below :  
(cut, transverse fracture, pricked, compound fracture, sprain, stress fracture)

Soft tissue injury	Bone injury
.....	.....
.....	.....
.....	.....
.....	.....
.....	.....
.....	.....

elbow give chest compression 4-5 cm deep.

- The chest compression should be at the rate of 100 per minute.
- After every compression release the pressure on chest to allow previous position enabling blood flow towards the heart.

#### Supplementary Studies :

- (1) While playing Kabaddi a player has suffered a bone injury. As a teammate how will you help manage the injury?
- (2) Complete the flowchart giving the causes of injuries.

