

## **4.2 Supporting and adding Equipment for Lower and Upper extremities Injuries Prevention:**

- **Protective Equipments:**

Many sports require specific protective equipment in order to be played effectively and safely. For example, **shoulder pads, a helmet and thigh pads** are used when playing the sport of football. It's important for each individual to determine if additional protective equipment is specifically required for them to safely play the sport. For instance, one individual may require **knee and/or elbow support** while other participants may not. It's also important that protective equipment be used at all times when participating in the sport, whether it is in a game, practice, or just for fun.

- ❖ **Sports Protective Equipment: Sports Injury Prevention**

As a result of injuries to athletes during sporting activities, safety standards are set by government, national health and public health organizations to identify risks and protective equipment required in specific sports, particularly action or high contact sports, to reduce risk of injury. When engaging in a sport, it is best to seek professional sports advice about the type of protective equipment required.

Protective equipment may include helmets, protective eyewear, mouth guards, face protection, jock straps, life jackets, safety mats, pads and guards, protective footwear and padded flame resistant pressure suits for motorcyclists and motor cross participants.

- ❖ **Prevention before Injury:**

- **In Cricket the protective equipments are as follows:**

- **Abdominal guard or "box"** or an L Guard for male batsmen and wicket-keepers (often referred to as a *cup, box* or *abdo guard*). It is usually constructed from high density plastic with a padded edge, shaped like a hollow half-pear, and inserted into the jockstrap with cup pocket underwear of the batsmen and wicket-keeper. This is used to protect the ballz and dong against impact from the ball.
- **Spiked shoes** to increase traction.
- Leg pads, worn by the two batsmen and the wicket-keeper, used to protect the shin bone against impact from the ball. The wicket-keeping pads are slightly different from the batsmen's. Fielders that are fielding in close to the batsmen may wear shin guards (internal) as well.
- **Thigh guard, arm guards, chest guard, and elbow guards** to protect the body of the batsmen.
- **Gloves** for batsmen only, thickly padded above the fingers and on the thumb of the hand, to protect against impact from the ball as it is bowled
- **Wicket-keeper's gloves** for the wicket-keeper. Usually includes webbing between the thumb and index fingers.

- **In Volleyball the protective equipments are as follows:**

- **Padded Volleyball Shorts:** The Volleyball shorts with HexPads strategically placed over the hips to reduce hip pointers and abrasions common in Volleyball. The compression fabric supports large muscle groups to reduce muscle pulls and fatigue.
- **Thumbkeeper by Bird and Cronin:** Ideal splint for Gameskeeper's Thumb, Immobilizes the MP joint to support and protect injured collateral ligaments.
- **Padded Elbow Brace:** In addition to warmth and compression for minor injuries such as tendonitis, bursitis, and arthritis, this brace provides added protective padding.
- **Knee Pad:** The Spider Knee Pad serves as an ideal sports support for many sports, including basketball, football and volleyball. High impact resistant foam for protection during contact sports.

- **Thumb Stabilizer:** Helps support and limit the motion of the MP joint of the thumb. Ideal for use on soft tissue injuries, ligament strains, Gamekeeper's thumb, osteoarthritis, and degenerative joint disease.

- **In hockey requires a lot of protective equipment, and it must fit properly to effectively protect the player. The necessary equipment includes:**

- |   |                            |
|---|----------------------------|
| ○ Helmet  | ○ Jersey                   |
| ○ Mouth guard (either custom-made or "boil and bite" off the shelf) | ○ Pants (girdle and shell) |
| ○ Face shield   | ○ Cup/supporter            |
| ○ Shoulder pads   | ○ Shin guards              |
| ○ Elbow pads  | ○ Socks                    |
| ○ Gloves  | ○ Skates                   |
|   | ○ Stick                    |

- **Goalies require additional equipment:**

- |               |                           |
|---------------|---------------------------|
| ○ Face shield | ○ Chest and arm protector |
| ○ Leg pads    | ○ Helmet with face mask   |
| ○ Catch glove | ○ Goalie skates           |
| ○ Blocker     | ○ Goalie stick            |

Hockey equipment can be expensive. Good used equipment can often be found, but make sure it fits appropriately.

- **In Boxing the protective equipments are as follows:**

- **The Boxing Gloves:** Gloves are the boxer's most important piece of equipment. First, they reduce the risk of injuring one's opponent by protecting against outer cuts and bruises. Also, they protect the boxer's hand.
- **Boxing Hand Wraps:** In addition to gloves, boxers wear hand wraps to further protect the hands from fractures and joint damage.
- **Boxing Mouthpiece:** The boxing mouthpiece is absolutely necessary for boxers in sparring or fighting settings. It is designed to protect teeth from being knocked out, and also to prevent the boxer from biting his or her tongue.
- **Boxing Headgear:** Though the toughest heavyweight champions are hard enough to sustain punches to the head without a flinch, most mortals would severely hurt themselves if they boxed without protective headgear.
- **Boxing Groin and Chest Protection:** Depending on their sex, boxers of every level should consider groin and chest protection. Although punches to the groin are not allowed in boxing, it is not uncommon for such areas to receive accidental blows during a match. Groin protection protects not only the groin, but also surrounding areas including the kidneys, the liver, and the lower abdomen

- **In Football the protective equipments are as follows:**

So, what exactly are all those pieces of equipment meant to protect your young football warrior from injury? Here's the run-down:

- |                            |                    |
|----------------------------|--------------------|
| ○ Helmet                   | ○ Shoulder Pads    |
| ○ Neck Collar/Neck Roll    | ○ Gloves           |
| ○ Jockstrap and Cup        | ○ Shoe             |
| ○ Mouth Guard              | ○ Shin Guards      |
| ○ Thigh, Hip and Knee Pads | ○ Groin Protectors |

To prevent or minimize injuries to sports people, such as boxers, cricketers, football players, cyclists, skiers, baseball and motor sports above equipments are mandatory or recommended.

❖ **Prevention for Re-Injury:**

- **Common Items:**

The common kits mostly found in the homes may contain:

- Band-Aids
- Cotton Balls
- Cotton Swabs
- Iodine
- Bandages
- Hydrogen Peroxide
- Gauze
- sticking plasters
- Saline
- Dressings
- Eye wash

- **Trauma injuries:**

Trauma injuries, such as bleeding, bone fractures or burns, are usually the main focus of most first aid kits, with items such as bandages and dressings being found in the vast majority of all kits.

- **Adhesive bandages (Band-Aids, sticking plasters)** - can include ones shaped for particular body parts, such as knuckles.
- **Moleskin**— for blister treatment and prevention
- **Bandages** (for securing dressings, not necessarily sterile)
  - **Gauze roller bandages** - absorbent, breathable, and often elastic
  - **Elastic bandages** - used for sprains, and pressure bandages
  - **Adhesive, elastic roller bandages** (commonly called 'Vet wrap') - very effective pressure bandages and durable, waterproof bandaging
  - **Triangular bandages** - used as slings, tourniquets, to tie splints, and many other uses
- **Butterfly closure strips** - used like stitches to close wounds, usually only included for higher level response as can seal in infection in uncleaned wounds.
- **Saline**-used for cleaning wounds or washing out foreign bodies from eyes
- **Adhesive tape**, hypoallergenic

- **Personal protective equipment:**

The use of personal protective equipment or PPE will vary by kit, depending on its use and anticipated risk of infection. The adjuncts to artificial respiration are covered above, but other common infection control PPE includes:

- **Gloves** which are single use and disposable to prevent cross infection
- **Goggles** or other eye protection
- **Surgical mask or N95 mask** to reduce possibility of airborne infection transmission (sometimes placed on patient instead of caregivers. For this purpose the mask should not have an exhale valve)
- **Apron**

- ❖ **Some others equipment that may be use after injury or the healing period of injury to prevent re-injury.**

- 10cm Trigger Massage Ball
- Ankle Cuff Weights- Vinyl
- Ankle Weights
- Bak Balls
- Body Blade Classic
- Dura Disc Balance Plate
- Footeeze
- Franklin Balls
- Hand Exerciser
- Handmaster Plus
- Hard Spiky Balls