First aid for fractures, dislocations, sprains and strains

A fracture is a break in the continuity of bone. A dislocation occurs when one or more bones are displaced at a joint. A sprain occurs when the ligaments holding a joint together are stretched and torn. A strain is when the fibres of a muscle or tendon are stretched and torn.

Appropriate first aid for fractures, dislocations, sprains and strains can reduce pain, shock and the risk of long-term complications from the injury.

Signs and symptoms

Fractures and dislocations
- Pain at or near site of injury
- Difficult or impossible normal movement
- Loss of power
- Defority or abnormal mobility
- Tenderness / swelling
- Discolouring / bruising

Sprain
- Intense pain
- Restricted mobility
- Swelling and bruising around injury joint develops quickly

Strain
- Sharp, sudden pain in the injury region
- Loss of power
- Tender muscle

Management

Fractures and dislocations
1. If casualty is unconscious follow DRSABCD action plan
   - Danger – check for Danger.
   - Response – check for Responsiveness.
   - Send for help – Send for help. Call triple zero ‘000’.
   - Airway – clear and open Airway.
   - Breathing – check for normal Breathing.
   - CPR – commence CPR if not breathing (30 chest compressions: 2 rescue breaths).
   - Defibrillator – apply Defibrillator if available and follow prompts.
2. Control any bleeding and cover any wound.
3. Check for fractures.
4. Ask casualty not to move injured part.
5. Immobilise fracture in a comfortable position
   - Use broad bandages (where possible) to prevent movement in the joints above and below the fracture.
   - Support the limb, carefully passing bandages under the natural hollows of the body.
   - Place a padded splint along the injured limb (under leg for fractured kneecap).
   - Place padding between the splint and the natural contours of the body and secure tightly.
   - Check bandages are not too tight or too loose every 15 minutes.
6. For leg fracture, immobilise foot and ankle
   - Use figure of eight bandage.
7. Watch for signs of loss of circulation to foot or hand.
8. Seek medical aid.

Sprains and strains
1. If casualty is unconscious follow DRSABCD action plan
   - Danger – check for Danger.
   - Response – check for Responsiveness.
   - Send for help – Send for help. Call triple zero ‘000’.
   - Airway – clear and open Airway.
   - Breathing – check for normal Breathing.
   - CPR – commence CPR if not breathing (30 chest compressions: 2 rescue breaths).
   - Defibrillator – apply Defibrillator if available and follow prompts.
2. Follow the RICE management plan
   - Rest the casualty and the injured part.
   - Icepacks (cold compress) wrapped in a wet cloth may be applied to the injury for 15 minutes every 2 hours for 24 hours, then for 15 minutes every 4 hours for 24 hours.
   - Apply Compression elastic bandage firmly, extending well beyond the injury.
   - Elevate the injured part.
3. Seek medical aid.
   - Note: If there is a lot of pain, manage the injury as a fracture and seek medical aid.

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In an emergency call triple zero ‘000’ for an ambulance

- learn first aid
- buy a first aid kit
- become a First Aid Services or Community Services volunteer