TRAUMA INJURIES

Signs, Symptoms and Management

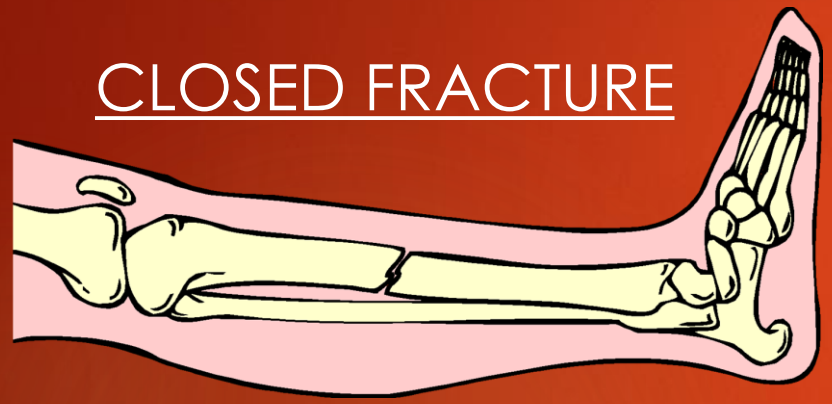
- First Aid Kit
- Non-life threatening bleeding
- Life threatening bleeding
- Basic wound care
- Nose bleed
- Burns
- Fractures, sprains & strains
- Needle stick
- Eye injuries
- Hyperthermia
- Hypothermia
- Crush Injury

FRACTURES

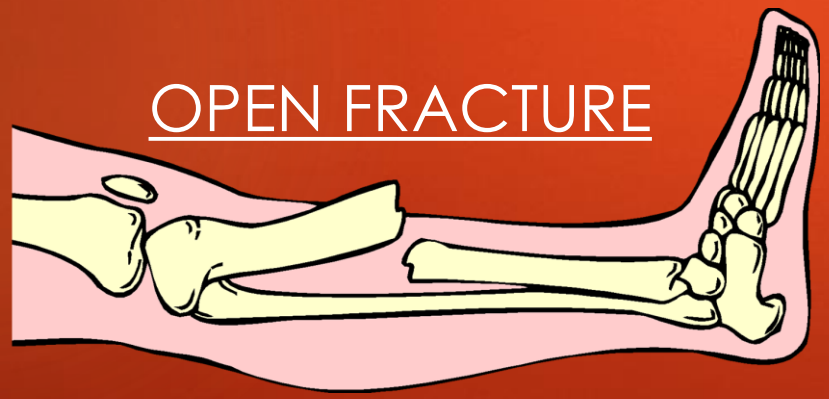
Greenstick Fracture - bend instead of break (common in young children)

Hairline Fracture - part of bone breaks away from the rest

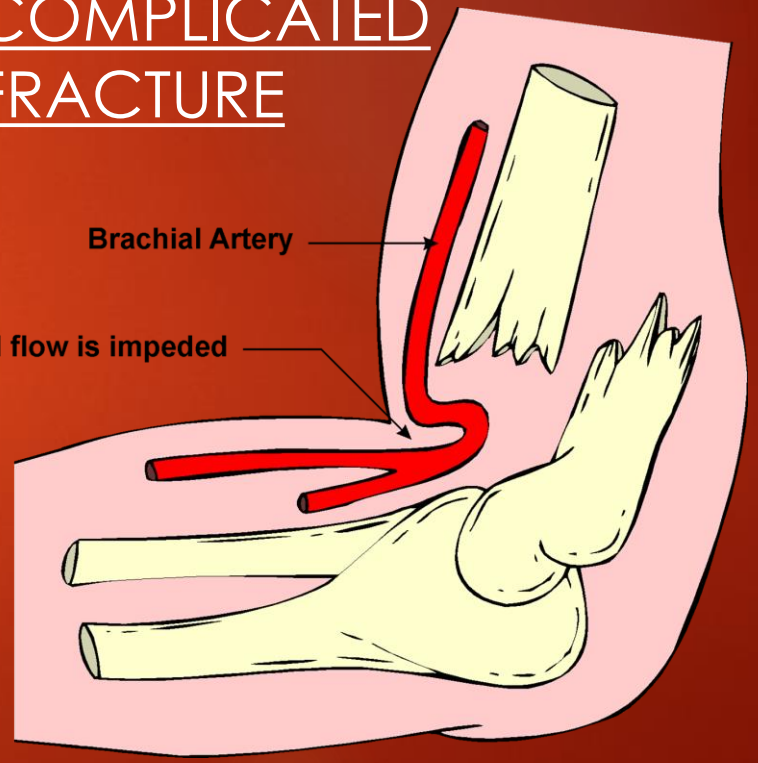
CLOSED FRACTURE



OPEN FRACTURE



COMPLICATED FRACTURE



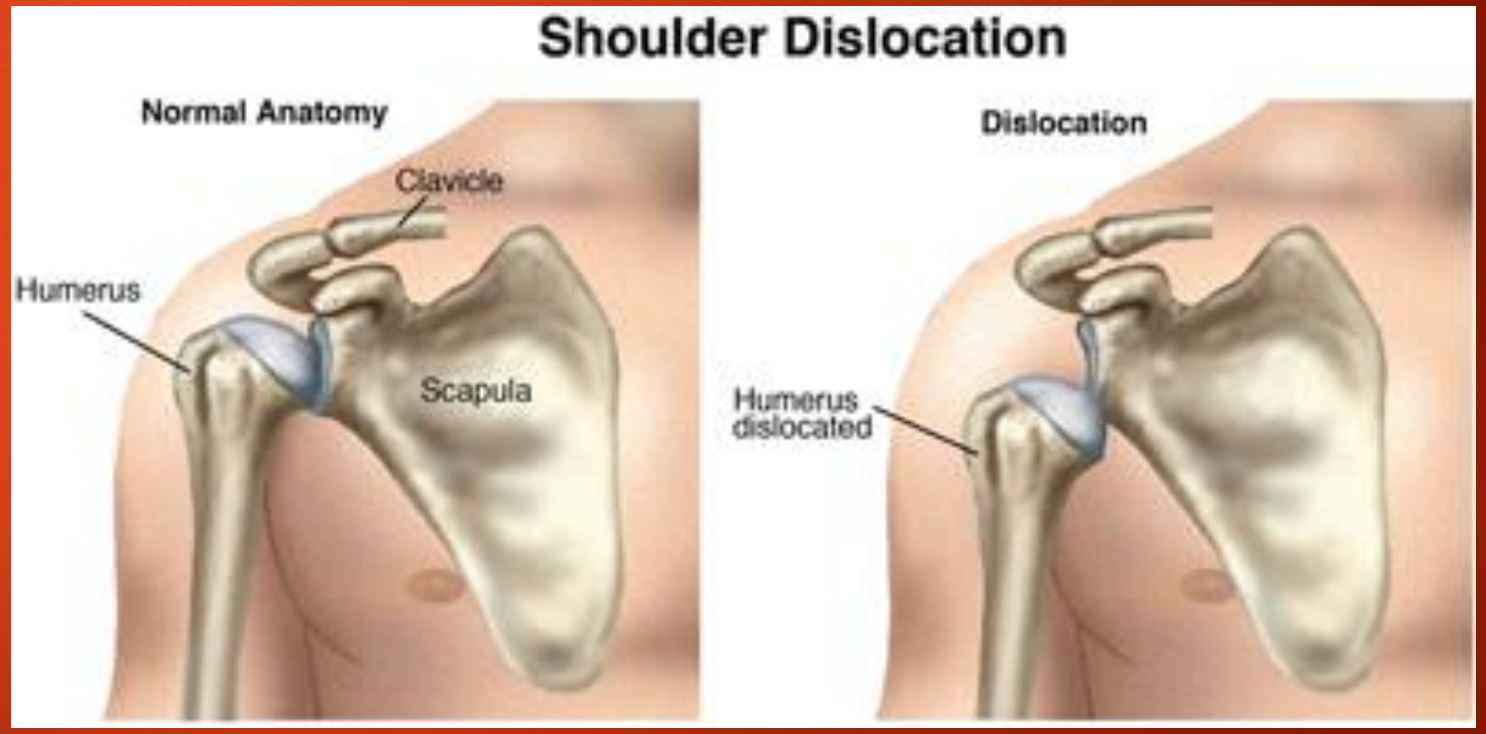
FRACTURE MANAGEMENT
SUPPORT AND IMMOBILISE

DISLOCATIONS

Dislocations occur when a bone is dislodged from the joint.

These can occur at the following areas -

* Toes
* Ankles
* Knees
* Hips
* Fingers
* Elbows
* Shoulders
* Jaw

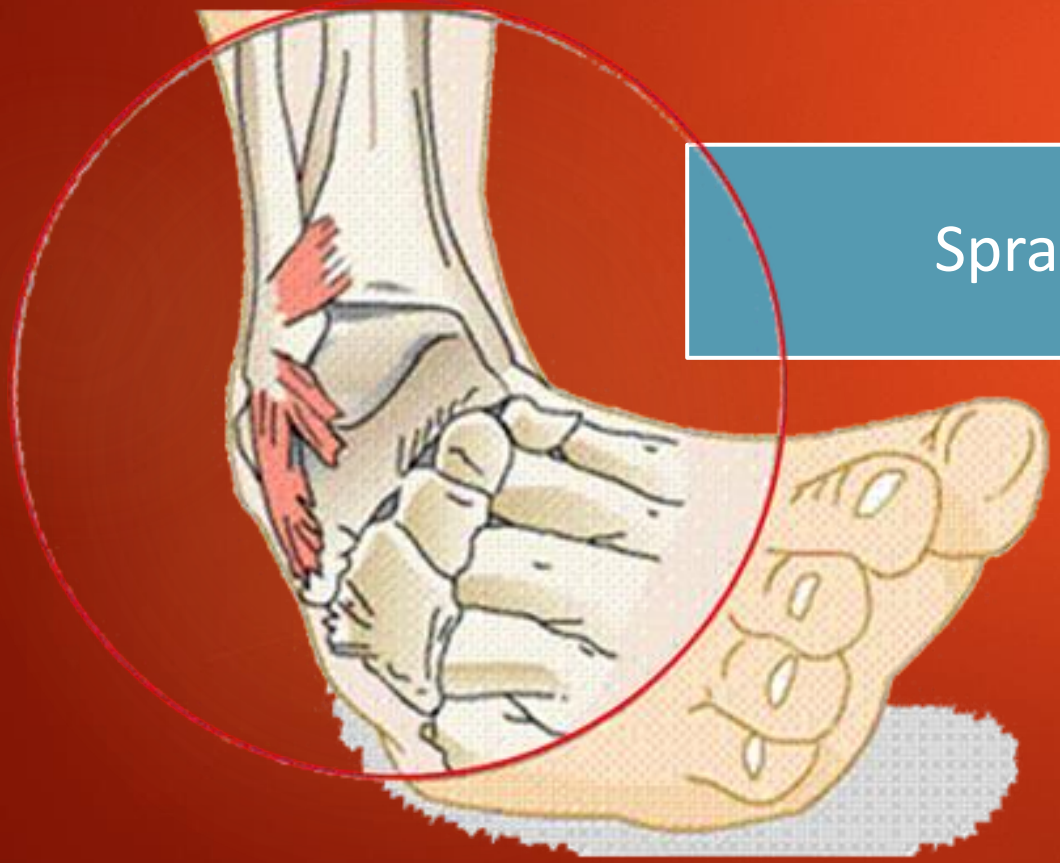


FRACTURE AND DISLOCATION MANAGEMENT

- Control any bleeding
- Keep casualty in position found where possible
- Immobilise in a comfortable position where possible (be casualty led)
- Reassure
- Seek medical assistance

If you're in doubt whether it's a fracture or not, treat it as a fracture.

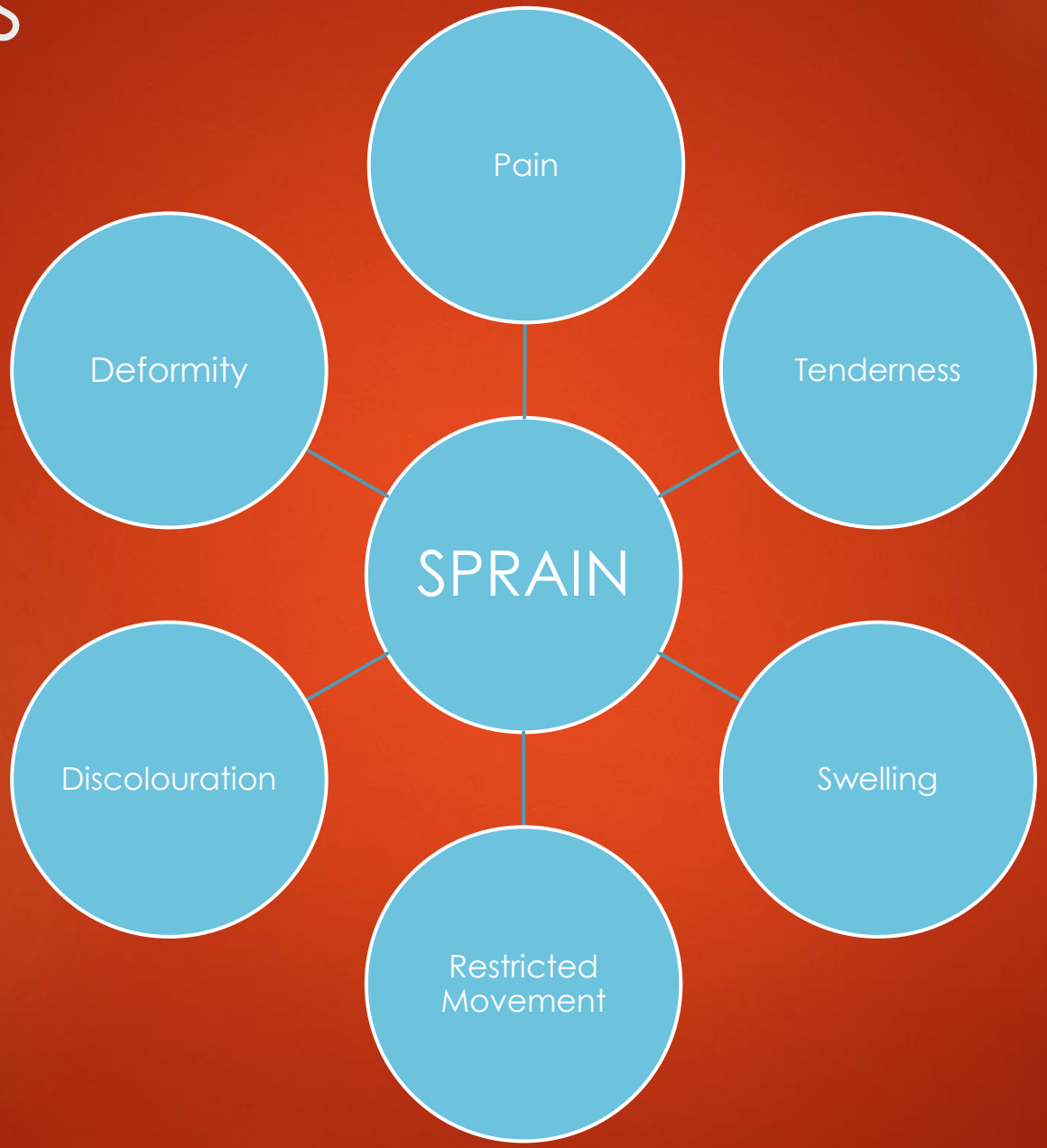
Soft Tissue Injury



Sprains

- Over extension of a joint
- Stretching and tearing of ligaments
- Common areas:
  Thumb, ankle, wrist

Symptoms


Pain
Deformity
Tenderness
SPRAIN
Discolouration
Swelling
Restricted Movement

Management

- **R** Rest
- **I** Ice
- **C** Compression
- **E** Elevation
- **R** Refer

REMEMBER!!
ASK CONSENT

BANDAGES / SLINGS

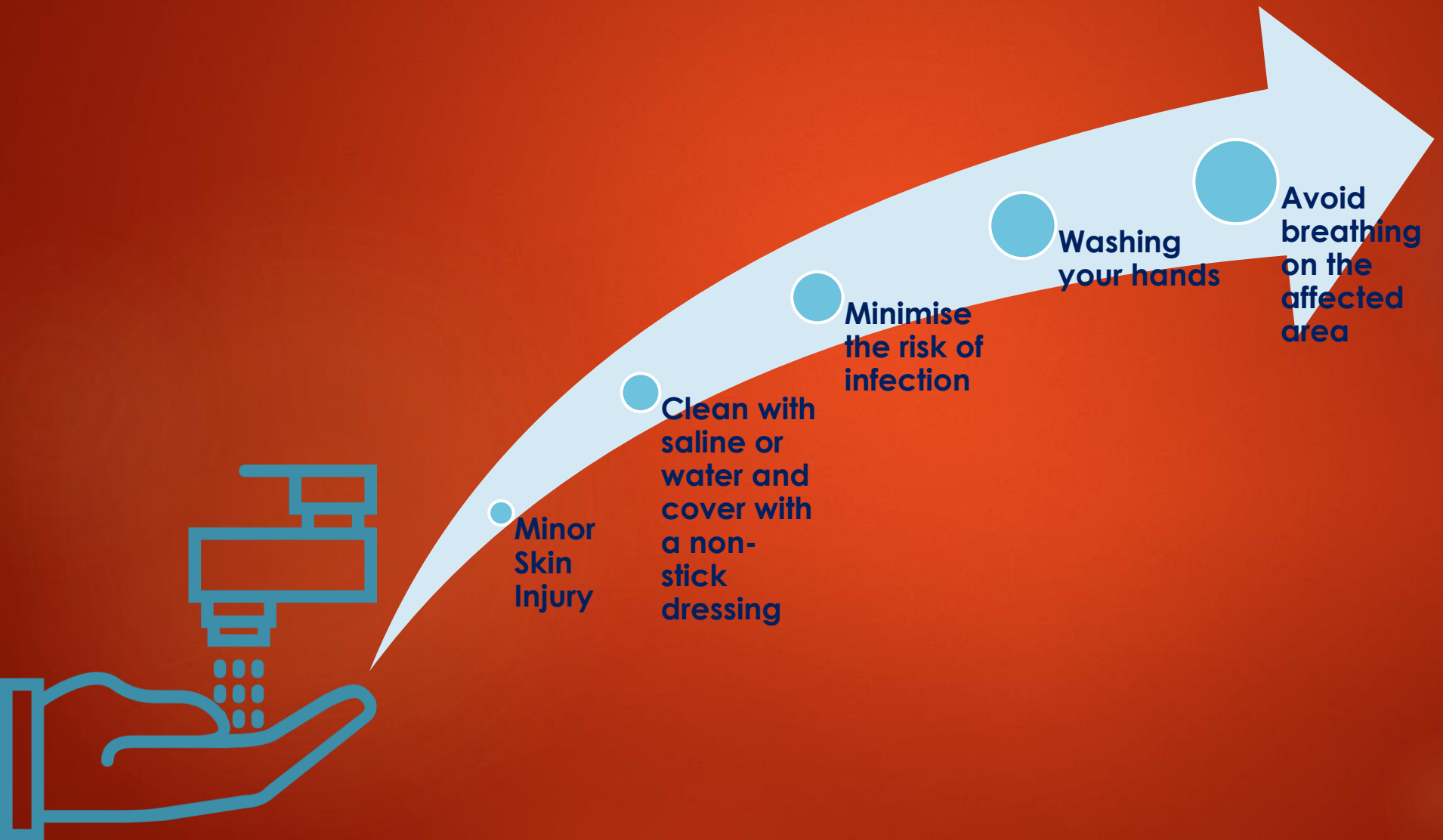
LOWER ARM
ARM SLING

COLLARBONE
ELEVATED SLING

UPPER ARM
COLLAR AND CUFF

IMPROVISED
ARM SLING

Basic Wound Care



BLEEDING - TYPES OF WOUNDS

LACERATION

INCISION

ABRASION

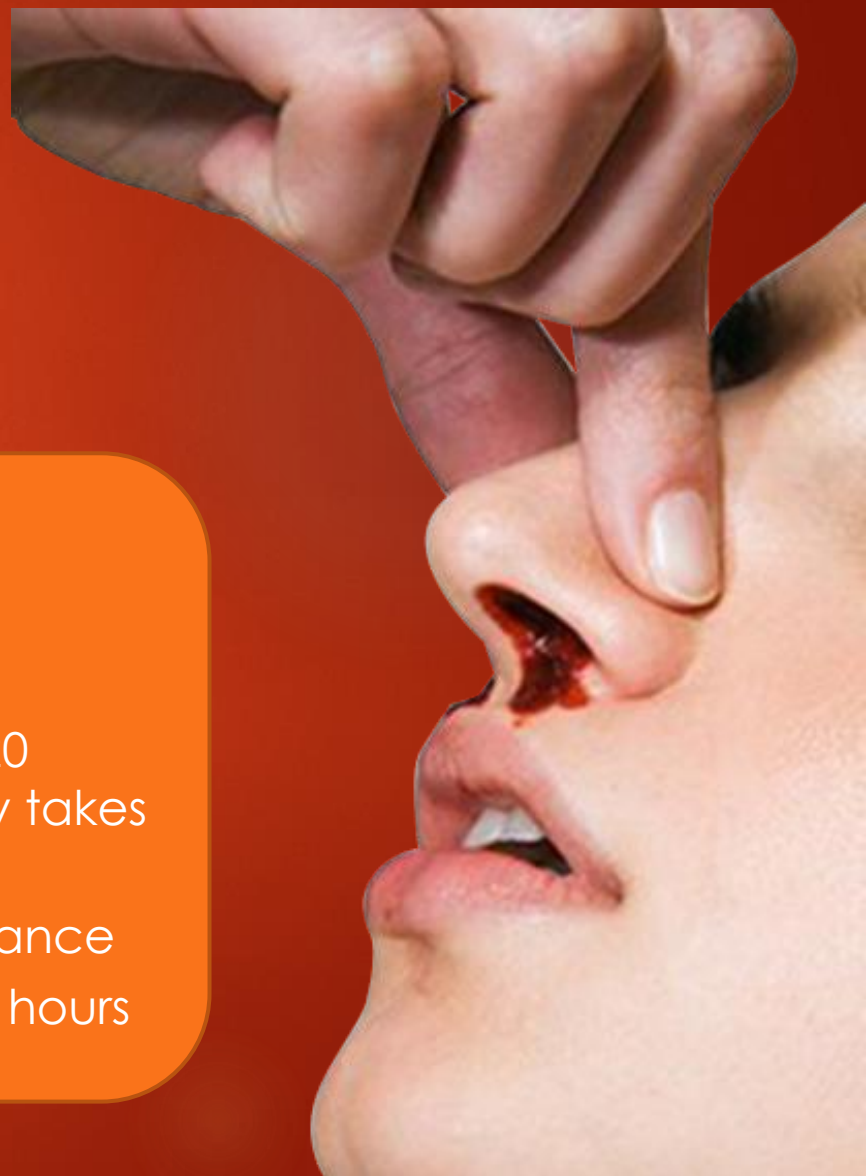
MAJOR EXTERNAL BLEEDING

The aim is to stop further bleeding whilst waiting for help to arrive

1. Applying firm, direct pressure sufficient to stop the bleeding.
2. If bleeding continues, apply a second pad and a tighter bandage over the wound
3. If bleeding still continues, check that the pad and bandage are correctly applied, directly over the bleeding.

Nose Bleed

- Occurs when blood vessels in the nose lining bursts
- May be caused by infection, injury, allergic reaction, nose picking or an object being pushed into the nostril
- Common in children and is usually not serious
- Seek medical attention if nose bleeds are severe, frequent or prolonged



- Pinch soft part of nose – just below the bone
- Have casualty seated, leaning forward and breathing through their mouth
- Maintain pressure and posture for at least 10 minutes (20 minutes after exercise, during hot weather or if casualty takes aspirin or warfarin tablets)
- If bleeding continues >20 minutes – seek medical assistance
- Advise casualty not to blow or pick their nose for a few hours

EMBEDDED OBJECTS

- Do not remove embedded objects
- Make and apply a ring or donut bandage to apply pressure around the embedded object
- Call an ambulance or seek medical advice

AMPUTATION

- Ensure casualty is in comfortable position and monitor for shock
- Apply pressure to the wounded area and bandage to hold pressure in place
- Locate the amputated parts if possible
- Place in zip lock sandwich bag and place in cold or icy water
- If not possible, wrap in wet clothing
- Call an ambulance, monitor casualty

BURNS

THREE DEGREES OF BURNS

- Superficial (1st degree)
- Partial thickness (2nd degree)
- Full thickness (3rd degree)

TREATMENT

- 20 minutes of cool running water
- Cover with a non stick sterile dressing to stop infection
- Call "000" or seek medical advice
- Treat for shock where necessary

CRUSH INJURY

- Heavy, crushing forces to any part of the body (e.g. vehicle entrapment, falling debris, cave-ins)
- Cause extensive tissue damage (e.g. bruising, lacerations, internal bleeding, fractures, ruptured organs, spinal injury impaired blood supply)
- A crushing force to the head, neck, chest or abdomen can cause death from breathing or heart failure treatment

PROVIDING FIRST AID

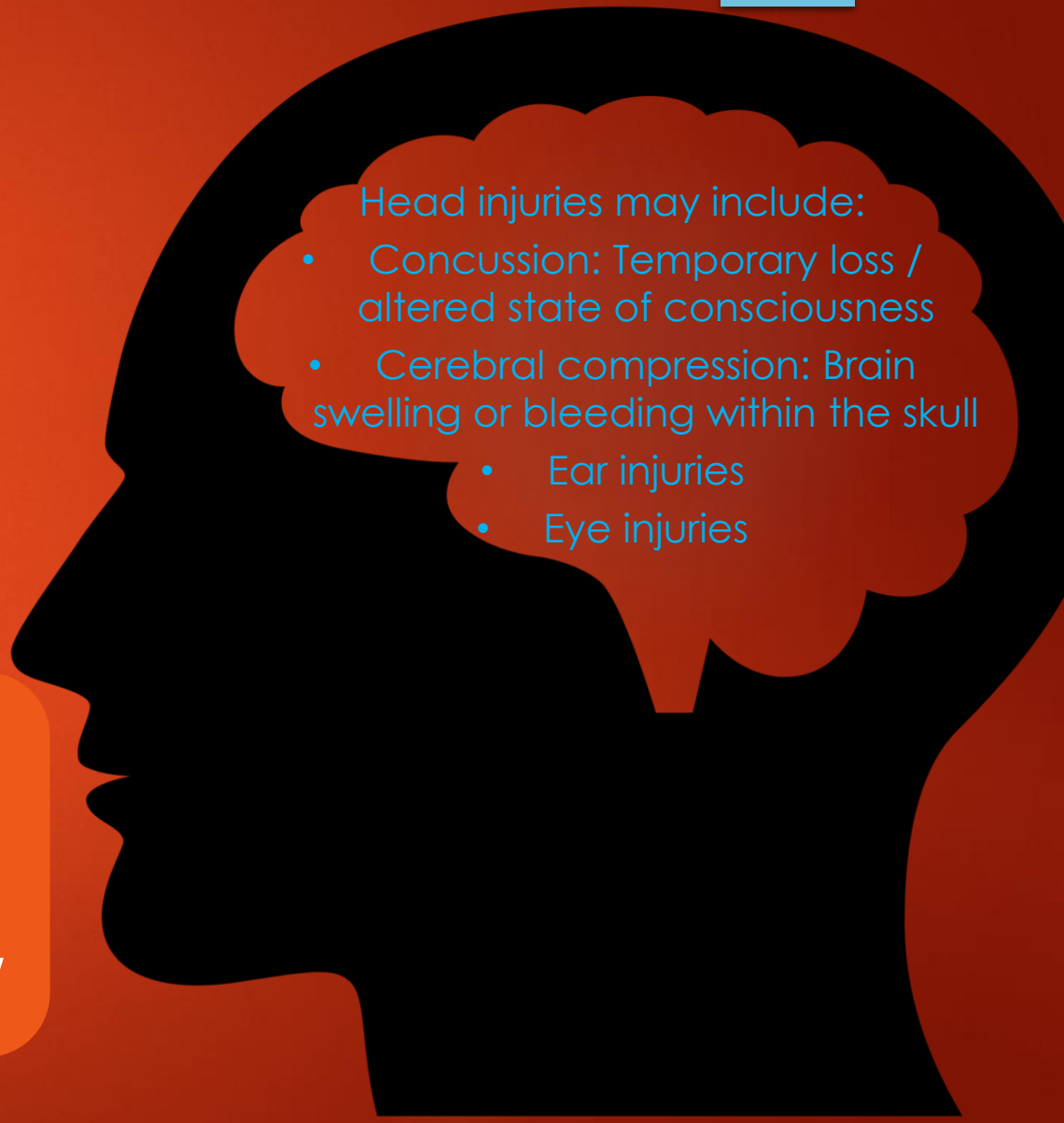
- For small injuries, run under cold water and/or apply ice
- For large injuries, call emergency services
- If safe, remove the crushing force as soon as possible
- Control any external bleeding (DO NOT use a tourniquet)
- Manage other injuries
- Keep casualty warm and still
- Comfort, reassure and monitor the casualty's vital signs

Monitor the casualty closely

Their condition may deteriorate rapidly

Head injury

- Head injury should be suspected when any of the following has occurred:
  - Trips and falls from heights
  - The casualty was unconscious when found
  - Blunt force injury
  - Injury caused by divin
  - Casualty's head protection or helmet is broken
  - High-impact sports injury



A hard blow to the head can injure the brain or spinal cord even when there are no visible signs of trauma to the scalp or face. Symptoms may not appear until several hours after the initial injury.

All head injuries are considered serious and should be assessed by emergency services or a doctor.

Head injury

Symptoms

- Headache or giddiness
- Confused or disorientated
- Drowsy or irritable
- Blurred vision
- Unequal pupils
- Loss of co-ordination
- Slurred speech
- Loss of memory
- Nausea or vomiting
- Seizure
- Swelling and bruising around eyes
- Bleeding into corner of eyes
- Bruising behind ears
- Straw coloured fluid or bleeding from nose or ear
- Loss of power in limbs
- Loses consciousness, even briefly

Seek urgent medical assistance if casualty shows a subsequent decline in the level of consciousness

Monitor casualty closely for the first 8 hours after a head injury

Head injury

Management

- Handle casualty gently and maintain spinal alignment at all times – suspect spinal injury until proven otherwise.
- Complete a thorough assessment of the casualty, including spine, eyes and ears. Airway takes priority over all injuries.
- Control bleeding and other injuries when the casualty is stable.

Conscious casualty:

- Support the casualty's head as well as possible
- Reassure the casualty, especially if they're confused
- If there is blood or fluid coming from an ear or nostril, loosely cover with a dressing (do not plug)
- Control bleeding and cover wounds
- DO NOT give anything to eat or drink
- DO NOT give aspirin for headache (may cause bleeding within skull)
- Prepare for possible vomit – locate bowl, towel
- Seek urgent medical aid

Unconscious casualty:

- Place casualty in recovery position with head and neck support
- Call emergency services
- Monitor vital signs every 5-10 minutes
- Control bleeding and cover wounds
- Support / stabilise head and neck
- Keep warm with a blanket
- Prepare for possible vomit

Spinal injury

In an accident, spinal bones may be fractured or dislocated, causing injury to the spinal cord (which holds nerves that travel between the brain and the body).

Spinal injury should be suspected where the casualty:

- Has been involved in a transport-related accident (e.g. car, motor bike, cycling)
- Has fallen from height
- Has been involved in a sporting accident (e.g. rugby, horse riding, diving)
- Is an elderly casualty who has had a minor fall

Spinal injury

Management

- Any casualty found unconscious must be treated as having a spinal injury until proven otherwise
- Handle the casualty extremely carefully and maintain spinal alignment at all times to try to prevent further damage
- Helmets could be preventing further injury – only remove a helmet if it is preventing airway management or you need to perform CPR

Conscious casualty:

- Avoid moving the casualty – do not remove any helmets, if worn
- Advise the casualty to remain still
- Call emergency services
- Support / stabilise head and neck
- Keep warm with a blanket

Unconscious casualty:

- Place casualty in recovery position with head and neck support
- Call emergency services
- Monitor vital signs every 5-10 minutes
- Control bleeding and cover wounds
- Support / stabilise head and neck
- Keep warm with a blanket
- Prepare for possible vomit

ABDOMINAL INJURIES

The abdomen cavity contains a variety of organs (e.g. liver, spleen).
different organs react in different ways when subjected to trauma, thus presenting different symptoms.

Causes for abdominal injury include:

Blunt trauma (e.g steering wheel in motor vehicle accident, handlebars in motorcycle accident, falls and assaults)

Penetrating injury (e.g. knife injury or impalement)

Illness and infection (e.g appendicitis, infection, internal bleeding)

Abdominal injuries can be:
Open – blood or organs seen
Closed – internal bleeding which may cause shock

ABDOMINAL INJURIES

PROVIDING FIRST AID

- Call emergency services
- Treat according to conditions present:
- Conscious – place casualty on their back with pillow under head and shoulders and support under bent knees
- Unconscious – place casualty in recovery position
- Exposed organs – cover with moist non-stick dressing, plastic cling wrap of aluminium foil – loosely securing with surgical tape/bandage
- Shock – rest lying down, keep warm, reassure casualty
- Monitor vital signs

- Do not give food or drink
- Do not push bowel back into abdominal cavity
- Do not apply pressure to the wound
- Do not touch organs with your fingers

EYE INJURIES

- Causes of eye injury include:
- Direct blow (e.g. fist or ball)
- Foreign object (e.g. grit, dust, metal particles, insects, eyelashes)
- Penetrating object (e.g. knife injury or impalement)
- Burns (e.g. chemical, UV, heat)

Symptoms

- Pain and redness
- Bleeding
- Tears
- Sensitivity to light
- Swelling
- Discolouration

Direct blow

Any direct blow to the eye can cause fracture of the eye socket or retinal detachment

Providing First Aid

- Rest and reassure the casualty – ask them to limit eye movement
- Place padding over the injured eye, securing with tape or bandage
- Apply ice pack to reduce pain and swelling
- Do not attempt to remove contact lenses – a medical professional should do this
- Seek urgent medical aid (emergency services should only be called for serious injuries)

A black eye or blurred vision can be a sign of damage inside the eye

Foreign object

Minor foreign objects may sit on the eyeball or eyelid

Providing First Aid

- Do not allow the casualty to rub their eye
- Gently irrigate the eye, using saline or water, to wash out the object
  - If this fails (and the particle is on the white of the eye or eyelid), gently lift the particle off using a moistened cotton bud or the corner of a clean handkerchief
- If still unsuccessful, cover injured eye with a clean pad (no pressure on injured eye)
- Seek medical aid if object cannot be removed

Never use sharp objects (e.g. tweezers) to remove foreign objects

Penetrating object

Major foreign objects may become lodged in the eyeball or eyelid

Providing First Aid

- Lay the casualty flat and provide reassurance
- Reassure casualty – ask them to limit eye movement and not to touch/rub injured eye
- Call emergency services
- Place padding around the object
- Place a paper cup over the object to stabilise it – taping/bandaging to hold in place
- Cover the unaffected eye, but remove cover if casualty becomes anxious

DO NOT

- DO NOT remove embedded object
- DO NOT apply pressure to object/eye
- DO NOT wash or use eye drops

Burns

May be caused by:

- Chemicals (e.g. acids, caustic soda, lime)
- UV (e.g. welder's flash, snow blindness)
- Heat (e.g. flames or radiant heat)

Providing First Aid

- Irrigate eye, using saline or running water, for 20-30 minutes
  - Water should flow from inside to outside of eye
  - Irrigate under the eyelids
- Apply a light padding to the affected eye(s)
- Seek urgent medical assistance
- Do not attempt to remove contact lenses if eye surface is badly damaged

Ear injury

Causes of ear injury include:

- Ruptured eardrum (e.g. inserting objects into ear, sudden changes in pressure, loud noises)
- Trauma (e.g. cuts, or blows when playing sport)
- Foreign object (e.g. insects, debris, dirt)
- Illness (e.g. ear infection, wax build-up, infected piercing)

Symptoms

- Dizziness
- Fever
- Bleeding
- Bruising, swelling or redness
- Ear ache or pain
- Loss of hearing
- Fluid from ear (ruptured eardrum)

Symptoms will depend on the type of injury

Providing First Aid

Ruptured ear drum, part of ear has been cut off, or fluid is coming out of ear

- Call emergency services
- Do not block any fluid coming from ear
- Do not try to clean or wash the inside of the ear canal
- Do not put any liquid into the ear

Foreign object

- Seek medical attention to remove object
- Do not attempt to remove object by probing with a finger, cotton swab, pin, tweezers or any other tool

Insect

- Try turning casualty's head so that the affected side is up
- Wait to see if the insect flies/crawls out
- Seek medical attention if unsuccessful

FIRST AID KIT

- Check the contents regularly – re-stock quickly
- Make sure everything is in-date and in a useable condition
- Ensure everyone knows where it is stored
- Add to your kit according to your workplace

END TOPIC 3