

What is a fracture?

A fracture is the breaking of a bone or cartilage, and is usually accompanied by soft tissue injury, pain and swelling in the surrounding area.

Types of Fractures

Open or Compound Fracture

- Where the bone protrudes through the skin, bleeding can be profuse, possible risk of infection.

Closed or Simple Fracture

- The skin stays intact, bleeding occurs into the tissues.

Complicated Fracture

- Vital organs are damaged.
eg. Fractured ribs can puncture the lungs.



Causes of a fracture

Direct force – a blow that breaks the bone at the point of impact,
eg. A rock falls on an arm; a steering wheel hits the rib cage.

Indirect force – the bone breaks a distance away from the point of impact.
eg. You fall on your outstretched hand and break your upper arm.

Abnormal Muscular Contraction – a sudden contraction of a muscle may result in a fracture.

eg. An elderly man fractures his hip after tripping while trying to stop himself from falling

Signs and Symptoms may include:

- You may hear the break when a person falls.
- Casualty may feel the bone break.
- Pain at or near the injury site.
- Deformity – the limb could be positioned at the wrong angle.
- One limb seems shorter than the other limb.
- The limb has a loss of power.
- Bruising
- Tenderness and swelling
- Increase in pain as swelling increases.



Treatment for all fractures:

Follow the Basic First Aid Plan to assess the casualty

- ✓ Control bleeding – cover wound with a dressing and bandage.
- ✓ Prevent movement – support injured limb with pillows or blankets.
- ✓ Treat for shock.
- ✓ Reassure casualty.
- ✓ Check circulation.
- ✓ Use an ice pack to help reduce swelling.

If medical aid is delayed or the casualty has to be moved

- ✓ Carefully splint the wound.
- ✓ Immobilise the fracture using broad bandages.
- ✓ Secure above and below the fracture site.

What can be used for splinting?

- Towels
- Newspapers
- Branches
- Pieces of timber
- The body



Note:

- Make sure splints are padded.
- Use broad bandages to splint the legs together.

Splinting a fractured upper arm:

- ✓ Apply an upper arm sling.
- ✓ If required apply a broad bandage above and below the fracture around the body bandaging the casualty's arm to the body for support.
- ✓ Check for circulation in the injured limb.

Splinting a fractured lower arm:

- ✓ Place a padded splint under the lower arm and hand. Tie on the splint with narrow folded bandages or roller bandages above and below the fracture. Place arm in a lower arm sling to support the limb. If no splint is available, you could use a newspaper, clothing or support the arm with the other arm.
- ✓ Check for circulation in the injured limb.



If an Ambulance is required - call immediately - do not delay

Splinting a fractured wrist, hand, and fingers:

- ✓ Place a padded splint under the lower arm and hand. Secure the splint with narrow folded bandages or roller bandages below the elbow, above the wrist and over the hand. Place arm in a lower arm sling to support the limb.
- ✓ If fingers are broken tape injured finger to the adjacent finger with padding between them.
- ✓ Check for circulation in the injured limb.

Splinting a fractured thigh:

- ✓ Place padding like a towel or clothing between the legs from the thigh to the ankles. Bring the uninjured limb to the injured limb. Apply a figure of eight bandage around the ankles and the feet. Apply a broad bandage around the knees & below the fracture site.

Splinting a fractured leg:

- ✓ Place padding between legs. Bring uninjured limb to injured limb. Apply a figure of eight bandage around the feet and ankles. Apply a broad bandage around the knees.



Treatment of a fractured ankle:

Follow the Basic First Aid Plan to assess the casualty

If no deformity is present

- Rest
 - Ice
 - Compression
 - Elevate
 - Refer to medical aid
- ✓ Avoid weight bearing.
 - ✗ Do not remove the shoe.



If deformity is present

- ✓ Support the ankle on pillows or blankets.
- ✗ DO NOT APPLY BANDAGES TO THE ANKLE.

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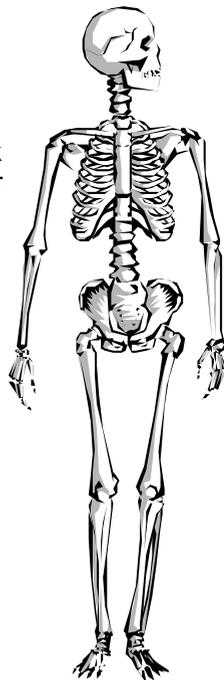
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Treatment of a fractured foot or toes:

- ✓ Elevate the limb.
- ✓ If not wearing shoes apply a compression bandage.
- ✗ If wearing a shoe, do not take it off unless there are signs of swelling or an open wound.

Treatment of a fractured pelvis:

- ✓ If casualty is conscious, place casualty onto their back with their knees slightly bent, supported with pillows or a folded blanket.
- ✓ Loosen belts & pants.
- ✓ Have them empty their pockets.
- ✓ If required treat casualty as though there are fractures of the upper legs or spine.
- ✓ Immobilise legs.



Treatment Fractured Collarbone:

- ✓ Support the injured arm in an upper arm sling.
- ✓ Check for bleeding.
- ✓ Rest
- ✓ Seek medical aid.

Treatment Fractured Kneecap:

- ✓ Place casualty onto their back with their head and shoulders supported.
- ✓ Raise and support the leg in a comfortable position.
- ✗ DO NOT TRY AND STRAIGHTEN LEG.
- ✓ If the limb needs to be splinted and without discomfort.
 - Apply a figure of eight bandage around the kneecap. Apply a padded splint from the thigh to the heel. Apply a figure of eight bandage around the ankle and foot and splint. Apply a broad bandage around the thigh and lower leg.
 - Support and elevate the leg.
- ✓ Check pulse and the colour of the skin.

Fractured Jaw:

A fractured lower jaw may be life threatening as it may cause an obstruction to the airway, particularly if the casualty becomes unconscious.

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