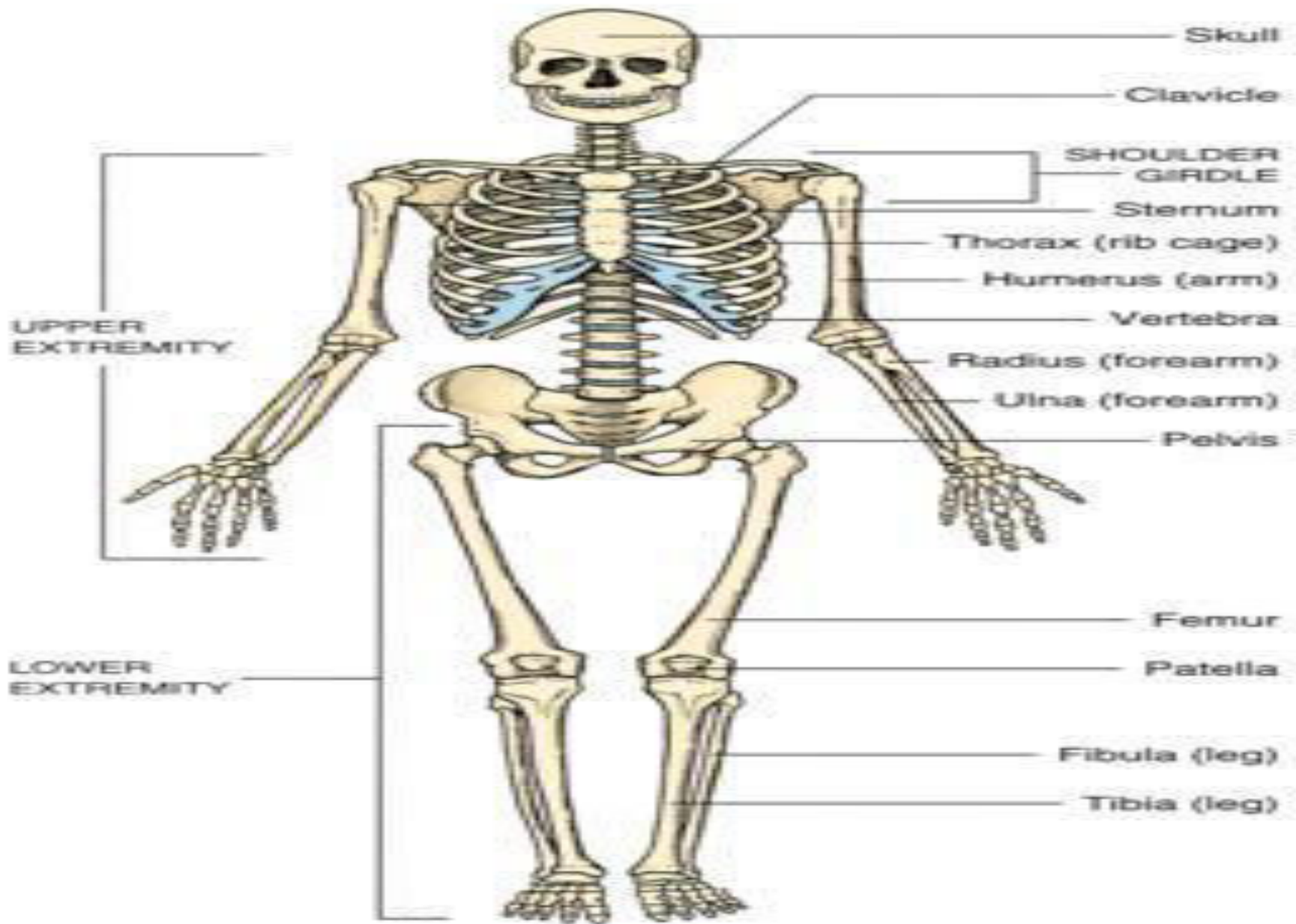


Injuries to Muscle and Bones and joints Fractures Dislocations Sprains & Strains

By Dorcas Mwangi

Leeson 9



function

- Gives the body shape
- Protects vital internal organs
- Facilitates movement

Sprains & Strains

- Sprain: Tearing or wrenching of tissues and ligaments at a joint
- Strain: Overstretching and tearing of a muscle

Mechanism of Injury

Injuries to Bones, Muscles and Joints are caused by:

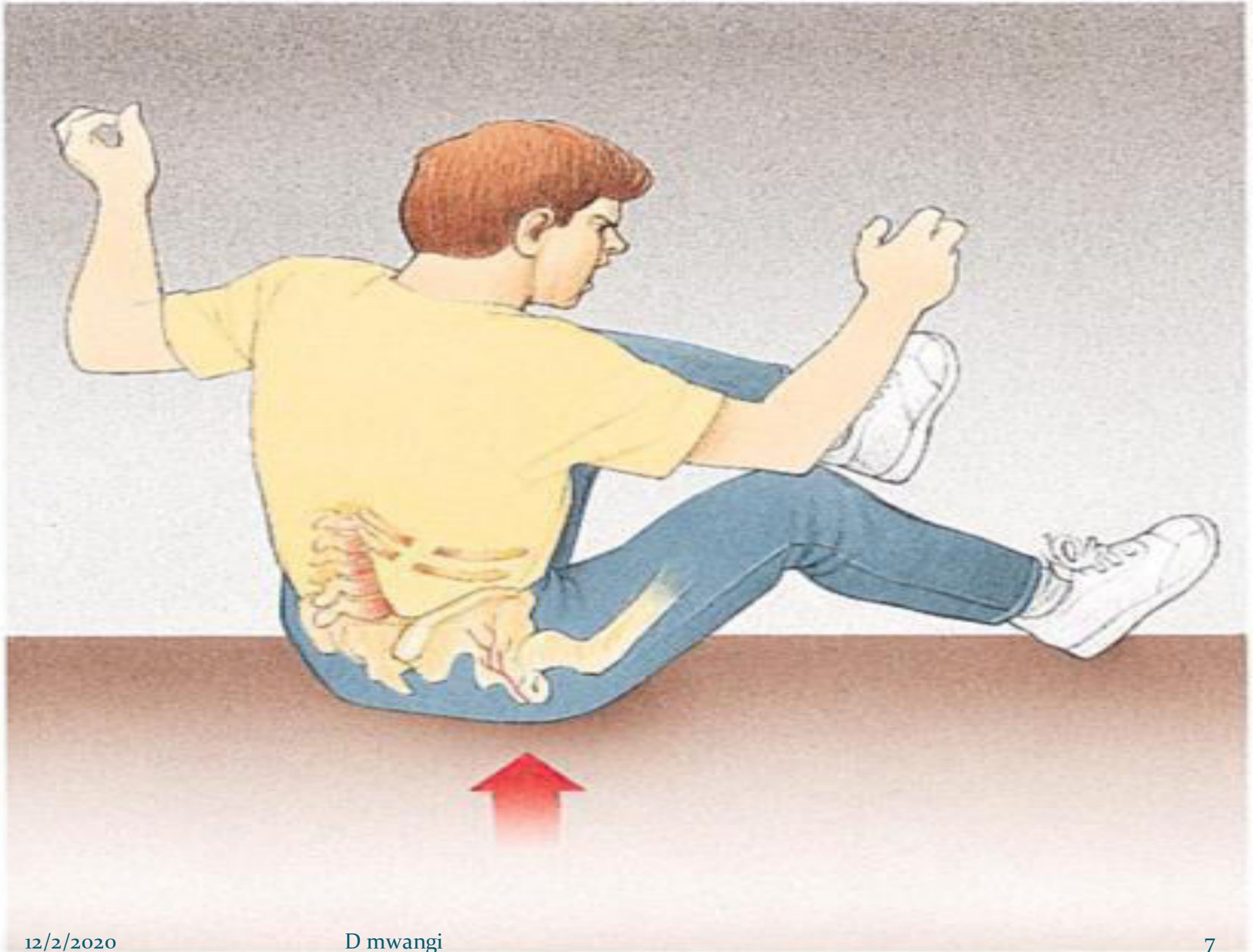
- Direct force
- Indirect force
- Twisting force

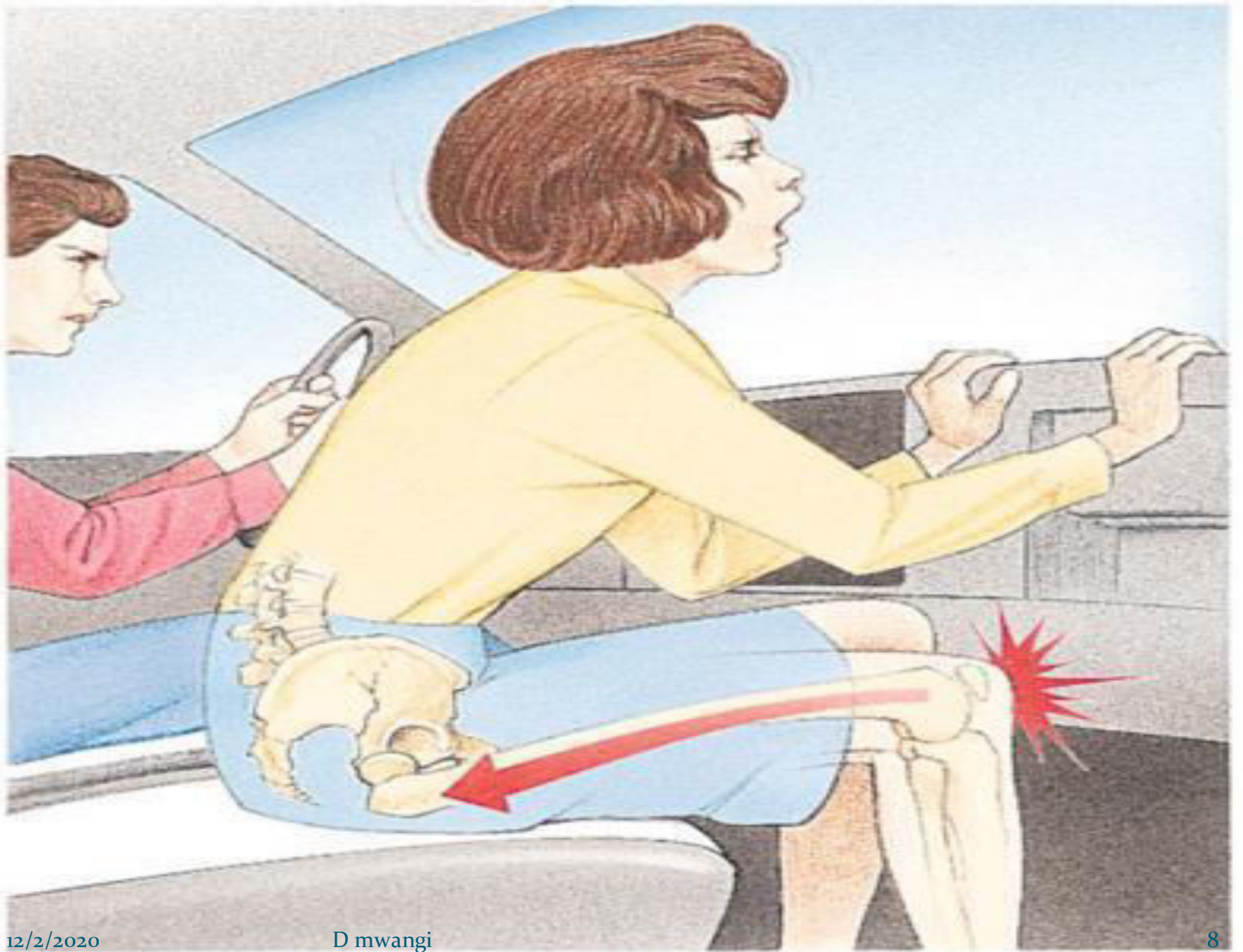


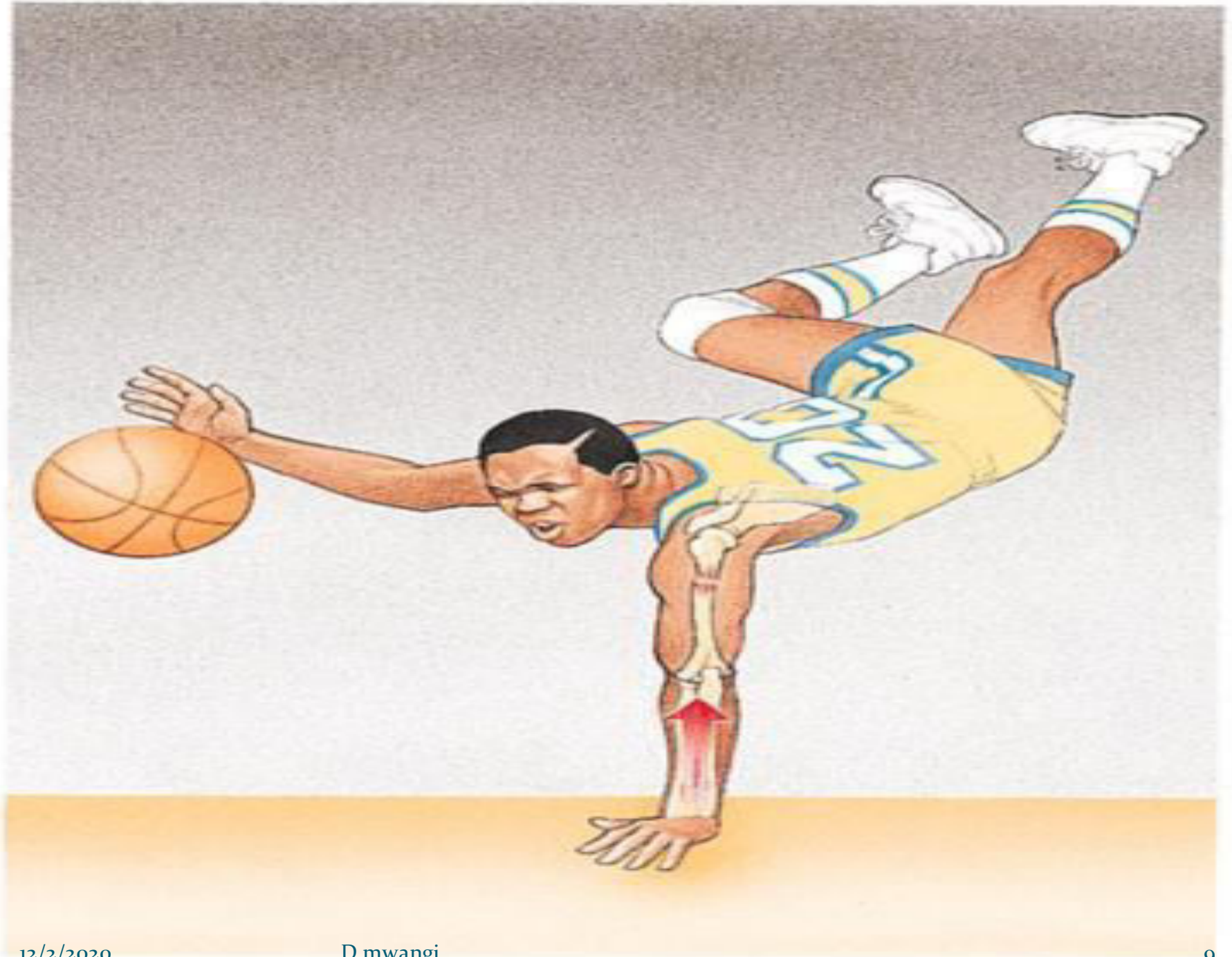
Indirect force

Direct force

Severe twisting force









Injury Definitions

- **Sprain–ligament injuries (joints)**
- **Strain–injuries to muscles due to overstretching**
- **Dislocation –displacement of two or more bones at a joint**
- **Fracture–break, crack or chipping of the bone**

Sprains and strains(RICE)

- **Rest the injured part**
- **Apply Ice –must be covered**
- **Compress with a bandage to minimize movement and swelling**
- **Elevate to minimize blood flow to the site**

DO NOT MASSAGE

- **When in doubt treat as a fracture**

Dislocations

- Do not try to replace the joint the bones into position
- Immobilize like for a fracture in the most comfortable position
- Apply an Icepack/cold compress at the site

Dislocation

- Displacement of bones at a joint

Fractures

Fracture refers to an injury affecting the skeleton and

can be caused by the application of direct and indirect

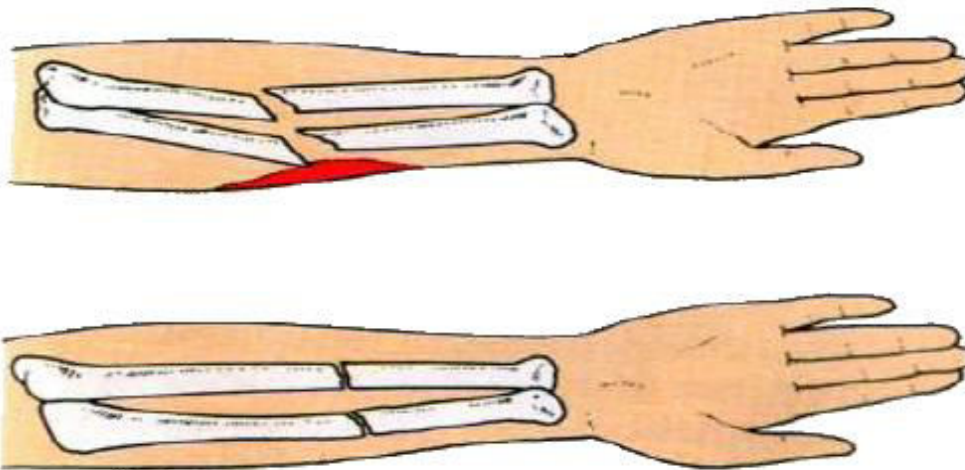
force.

Break ,chip or a crack in a bone

FRACTURE

FRACTURE

Any Breaking, Bending, Dislocation or Cracking of Bone is called Fracture.



CAUSES OF FRACTURE

- DIRECT INJURY
- INDIRECT INJURY
- MUSCULAR CONTRACTION OR
- EXPANSION

Fractures

Closed-
no break
in the
continuity
of the skin



Open-
break in the
continuity
of the skin



Fractures:

Recognition features

- History of a recent blow or fall
- Sound of snapping from the injured site
- Difficulty in moving the limb
- Severe pain and tenderness
- Deformity, bone appears to be in an unusual position
- Visible bone if its an open fracture

Signs and symptoms

- Deformity
- Pain and tenderness
- Swelling
- Bruising (Discoloration)
- Exposed bone ends
- Joint locked in position
- Snap sound

Management of fractures and dislocations

- Danger
- Response
- Airway
- Breathing
- Allow to remain in a position of comfort
- Support above and below the injury with manual stabilization

Cont;

- Apply a cold pack for closed injuries only to minimize swelling
- Cover open wounds with a sterile dressing and bandage diagonally
- Immobilize or splint if you have to transport
- Minimize effects of shock on casualty

Dislocated shoulder Apply manual stabilizatio n using sling



Cont;
Secure the
sling with
broad
bandage for
extra
support

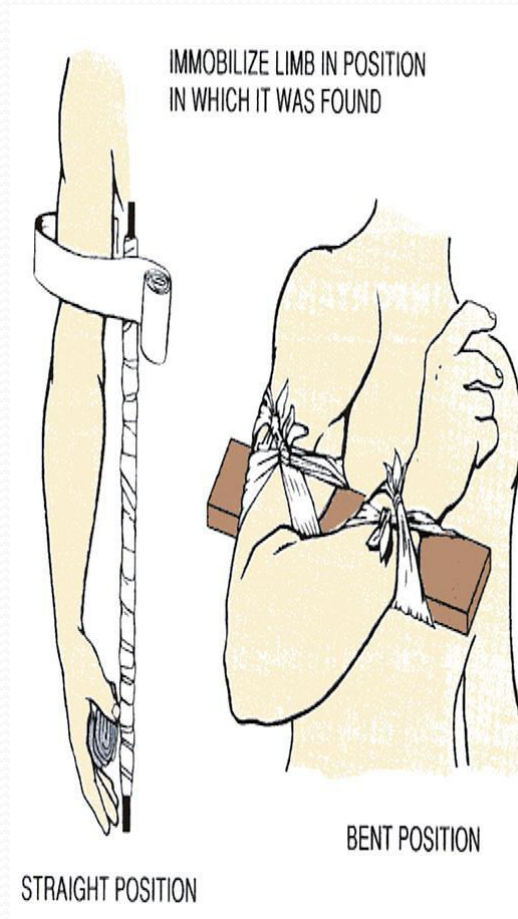


Fractured lower
arm

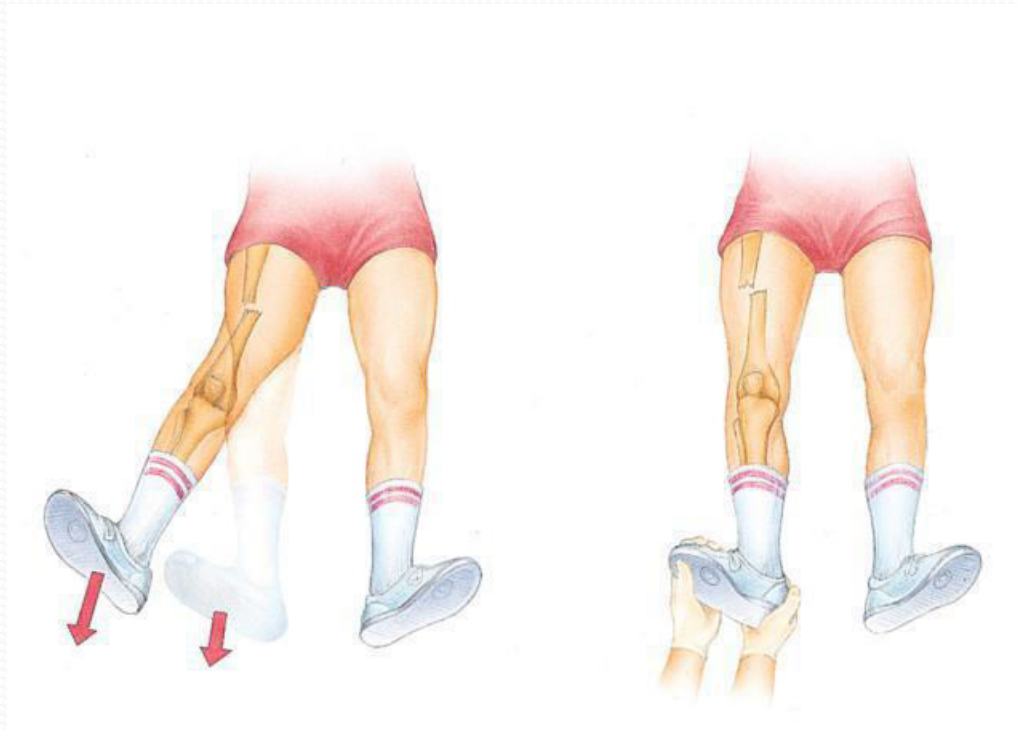
Splint a
fractured
arm if
possible
before tying
a sling



Elbow Injuries



Straightening/Traction



Open fracture of the leg



Control
bleeding
Apply direct
pressure
around
protruding
bone with
sterile
dressing



Applying Manual
Stabilization

Bandage
dressing in
place



Measure Splint



Bandaging with splints in position

**Apply splint to immobilize the bone and joints
above and below the injury**



Closed Fracture to leg





Management of foot injury



TRANSPORTATION

Seek for Ambulance

Use Stretcher

Handle the spine fracture victim
with utmost care and Caution

OR

Place the patient under proper care

Lifting and carrying

- Factors to consider:
- Distance
- Weight
- Your capability
- Nature of injuries/condition
- Number of helpers
- Terrain

Guidelines

- Keep back in locked in position
- Flex at hips, not the waist
- Bend at the knees
- Lift without twisting
- Have feet positioned properly
- Communicate with partner/s
- Keep weight close to the body

Methods

- One helper:
- Drag
- Pick a back (piggy back)
- Cradle
- Fire man's lift
- Human crutch

2 helpers

- 2 handed seat
- 4 handed seat

More helpers

- Blanket lift
- Stretcher
- Spine board

MODES OF CARRYING

(One First Aiders)

Single Person



Cradle



Human Crutch



MODES OF CARRYING

✚ Pick a Back



✚ Fire man's lift



Mode of carrying

MODES OF CARRYING

(Two First Aiders)

Hand Seat

✚ Four Handed Seat



✚ Two Arm Seat

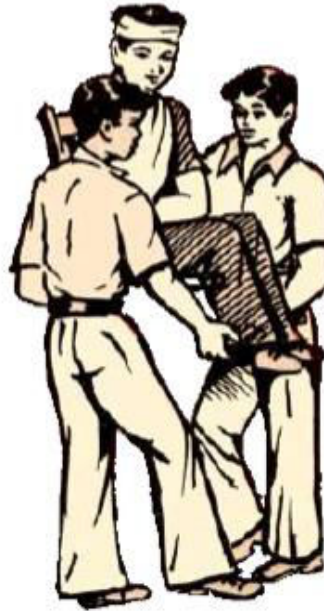


MODES OF CARRYING

- ⊕ When space does not permit two hand seat



- ⊕ Improvised (chair)



FURTHER READING

- <https://youtu.be/iQ6OesdfWSk>
- <https://youtu.be/ojps5SZITdo>
- <https://youtu.be/BZMD3cfyjVI>
- <https://youtu.be/BZMD3cfyjVI>
- <https://youtu.be/2v8vlXgGXwE>
- https://youtu.be/OVPhOFhb7_Y
- <https://youtu.be/UoyDJoudMkg>

Any
questions?



Thank you
for your attention