

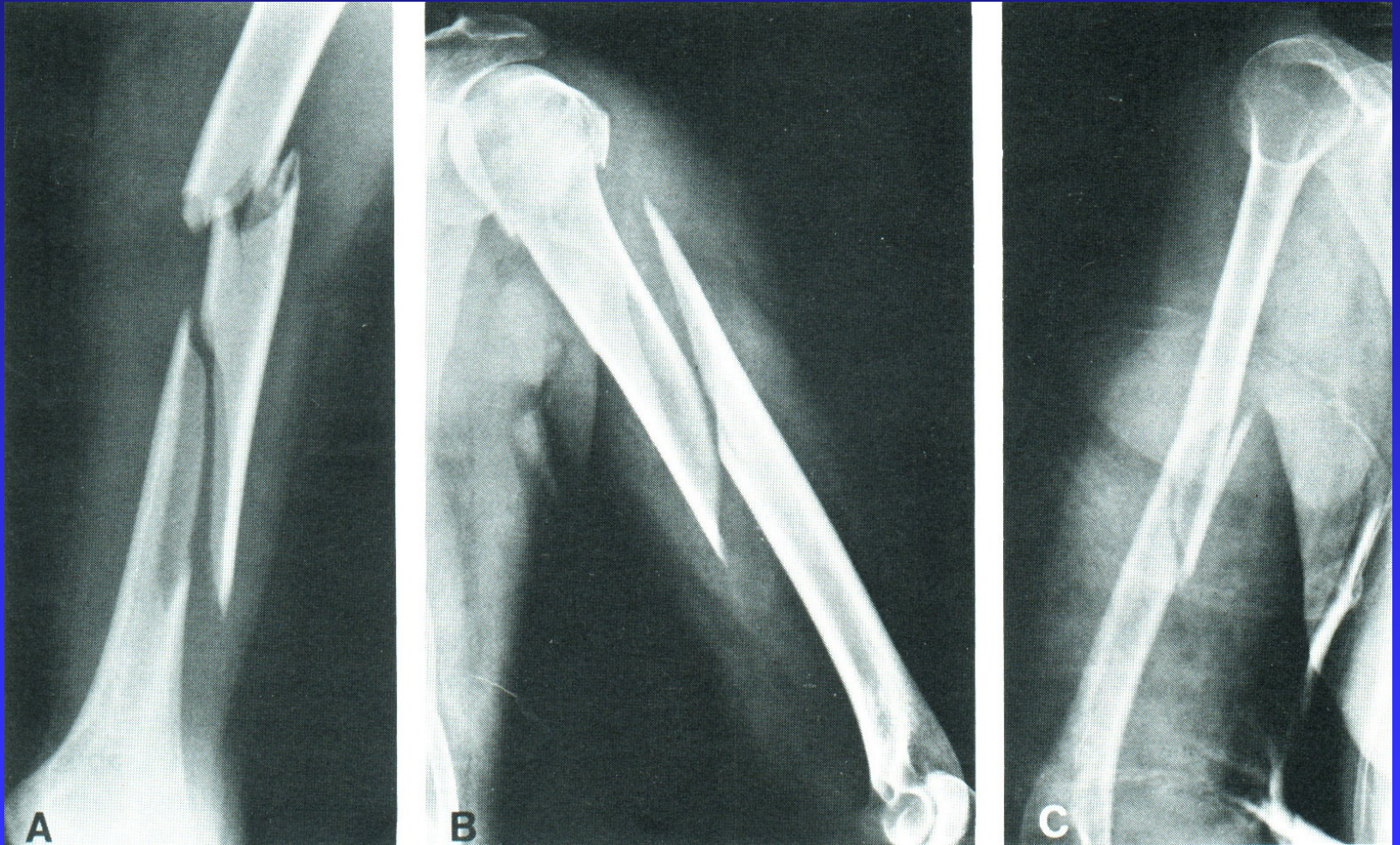
# Fractures and dislocations

Z. Rozkydal

# Fractures - etiology

- Traumatic (acute violence)
- Pathological (pathological lesion)
- Stress fractures

# Traumatic fracture





# Pathological fracture

Tumors

Infections

Osteopatias

Congenital diseases



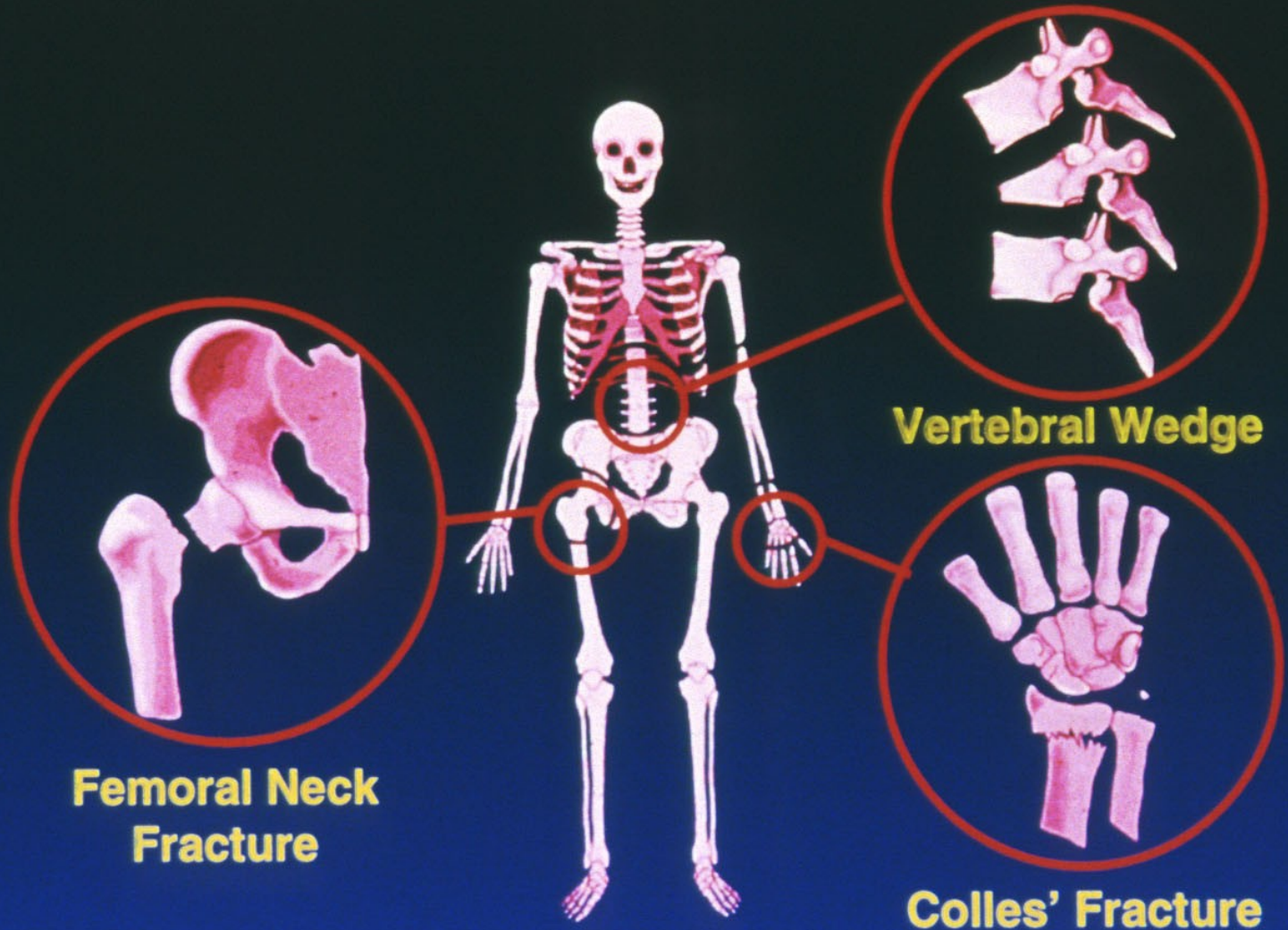
# Stress fracture





# THE COMMON FRACTURES OF OSTEOPOROSIS

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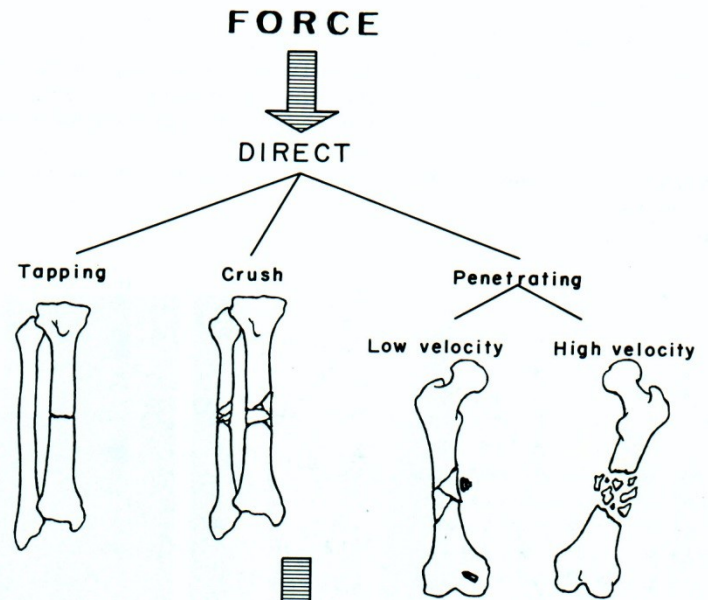
**Femoral Neck Fracture**

**Vertebral Wedge**

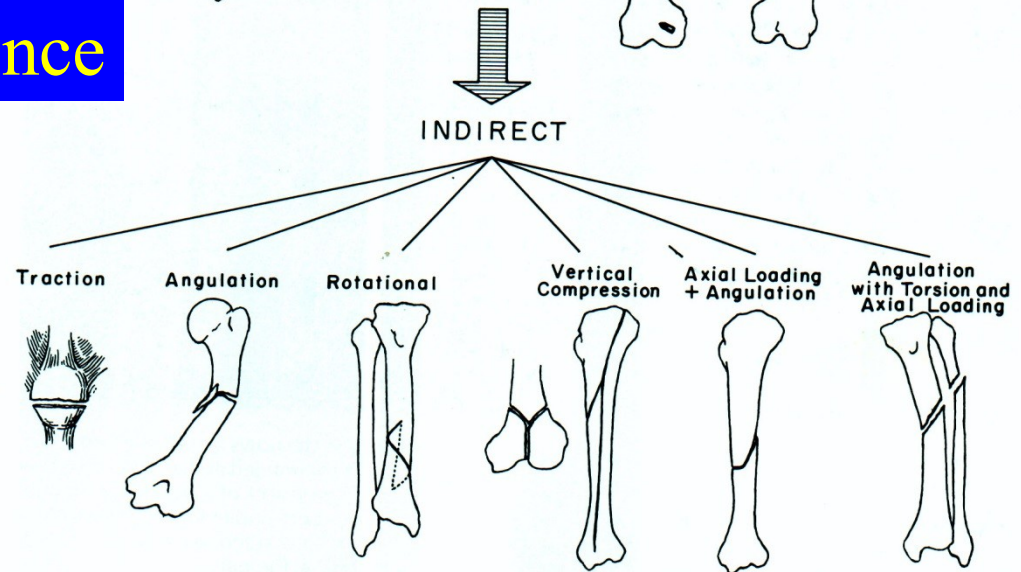
**Colles' Fracture**

# Mechanism of injury

## Fractures from direct violence

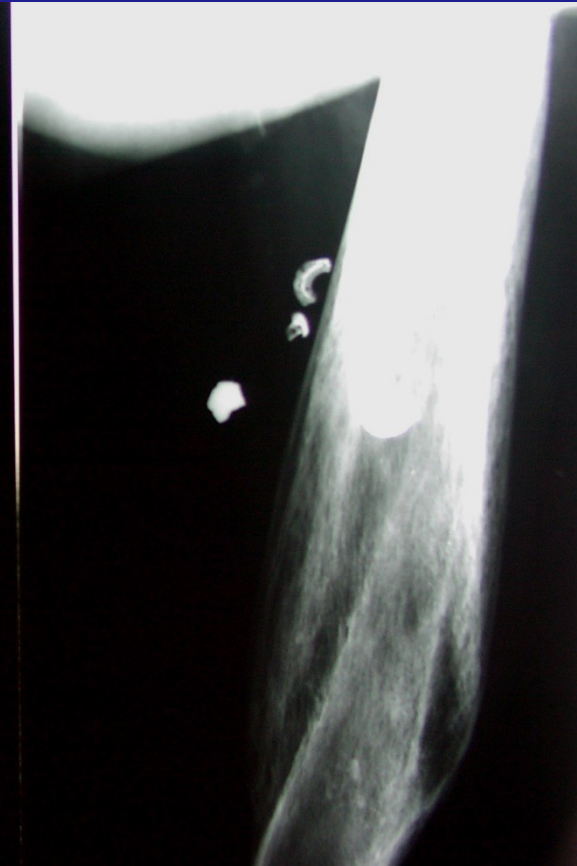
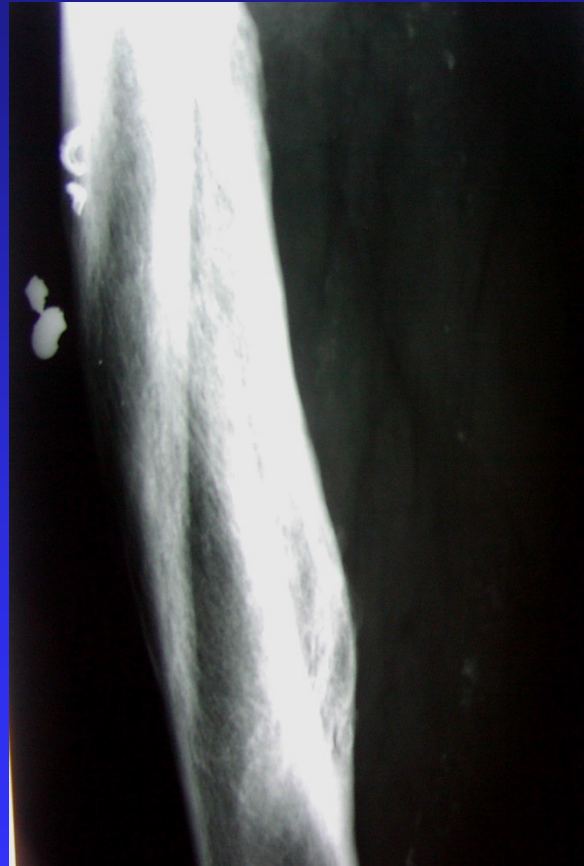
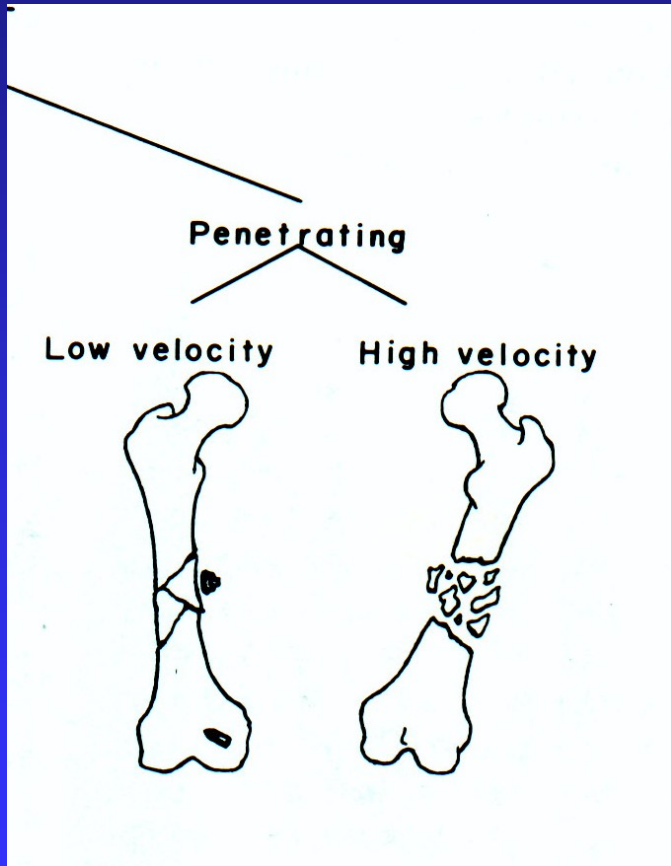


## Fractures from indirect violence



- traction
- angulation
- rotation
- vertical compression
- torsion

# Missile fractures





# Mechanism of injury

High energy trauma – large lesion of soft tissue

Low energy trauma - small lesion of soft tissue

# Classification of fractures



Complete



Incomplete

- fissures
- infractions
- impressions
- subperiosteal

# Classification of fractures



**Unstable fracture**  
Broken end move  
May damage soft tissues

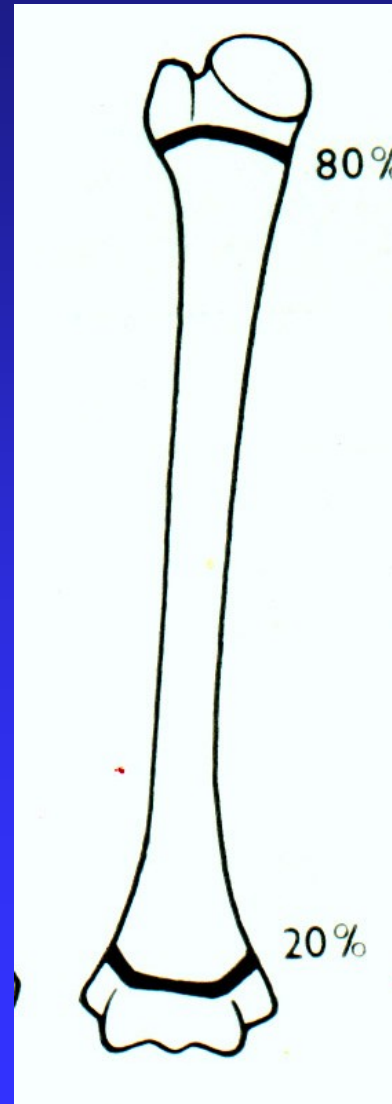


**Stable fracture**  
Broken bone ends  
do not move



# Localisation of fractures

- Epiphyseal
- Metaphyseal
- Diaphyseal



epiphysis  
metaphysis

diaphysis

metaphysis

epiphysis

# Clinical symptoms of fractures

- Pain and tenderness
- Swelling, haematoma, bruising
- Deformity, shortening or bending
- Crepitus
- Difficulty in moving the extremity
- A wound – in open fractures
- Signs of shock

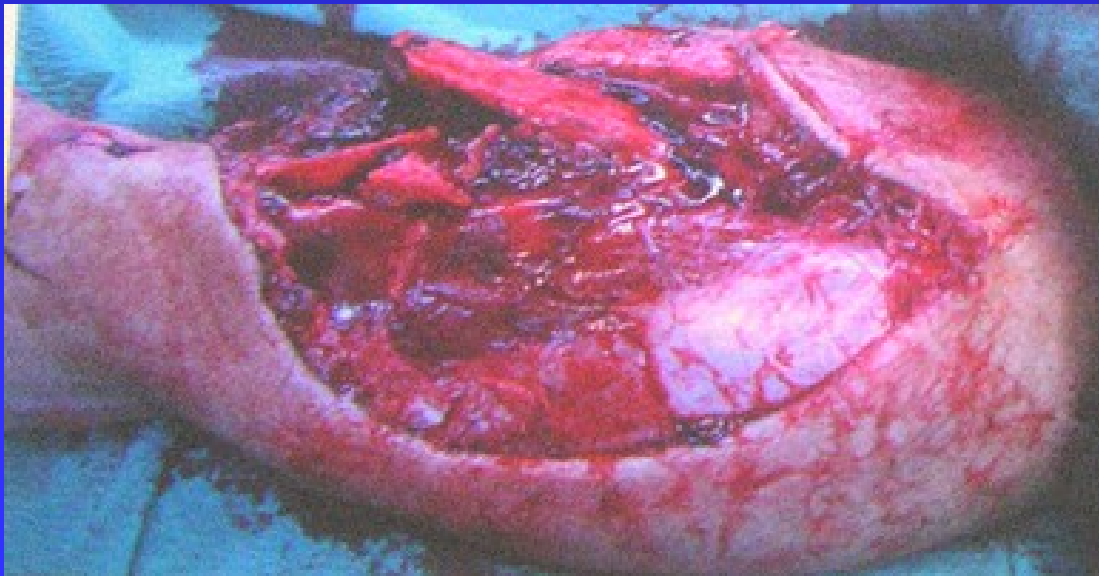
# Open fractures

A wound at the fracture site

Damage of the skin

Damage of the soft tissues

Bacterial contamination





# First aid

It depends on the stage of injury

Check the airways

Check the breathing

Stop bleeding

Check the answer of the casualty

CPR

Support cervical spine

Hypovolemic shock- raise the legs

Immobilisation of the extremity

Cover the wound with a sterile dressing

Check the circulation

Pneumothorax

# First aid

## Immobilisation

Upper limb- with a sling or bandage

Lower limb- secure it to an unaffected one

Place padding around the injury for extra support

# Injury to the joints

Contusion- direct blow

Sprain - ligaments, tendons, muscles

First aid

R- rest the injured part

I - apply ice pack or a cold pad

C- provide comfortable support

E- elevate the injured part



# Injury to the joints

Subluxation

Dislocation

Haemarthrosis

Signs

Pain, difficulty to move, deformity of the joint

Keep the casualty still

Do not try to reduce it

Upper limb- apply a bandage around  
the chest or apply a sling

Lower limb- secure it to the unaffected one

Do not allow the casualty to drink or eat