# Bone Fractures

### Classification

Open vs. Closed

Complete vs. Incomplete

Displaced vs. Nondisplaced





#### Causes

- Youth
  - Most result from trauma
- Elderly
  - Most often result from weakness and bone-thinning

### Incomplete Greenstick

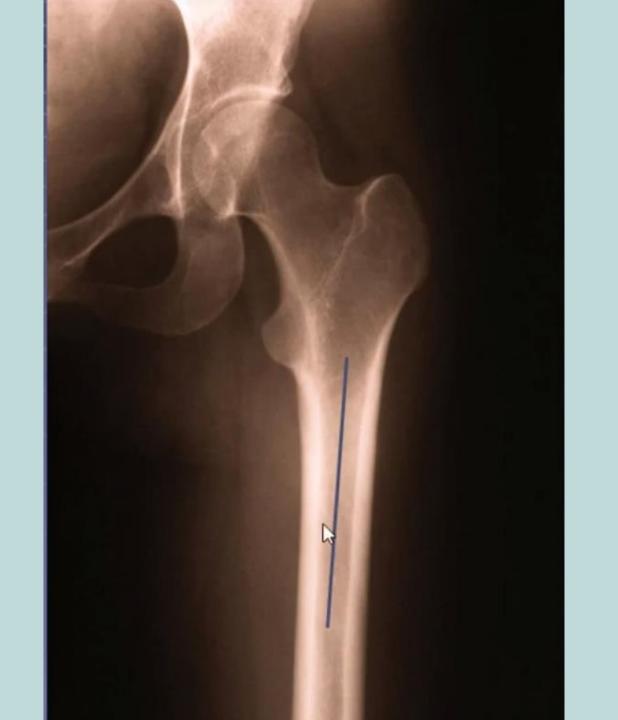
- Bone breaks incomplete
- One side of shaft breaks and other side bends
- Think of a stick that is very moist (green stick) that bends instead of snapping
- Common in kids





## Linear

- Fissured
- Break is parallel with axis of bone



#### Comminuted

- Bone broken into 3 or more fragments
- Common with fragile bones
- Patella, bottom of tibia and fibula





#### Transverse

- Complete and displaced
- Perpendicular
- In break





### Oblique

- Break at angle
- Complete, displaced





## Spiral

- Twisted, not just broken at angle
- Common sports fracture



#### Avulsion

- Fracture near location of insertion of tendon or ligament on bone
- Piece of bone is chipped off



### Compression

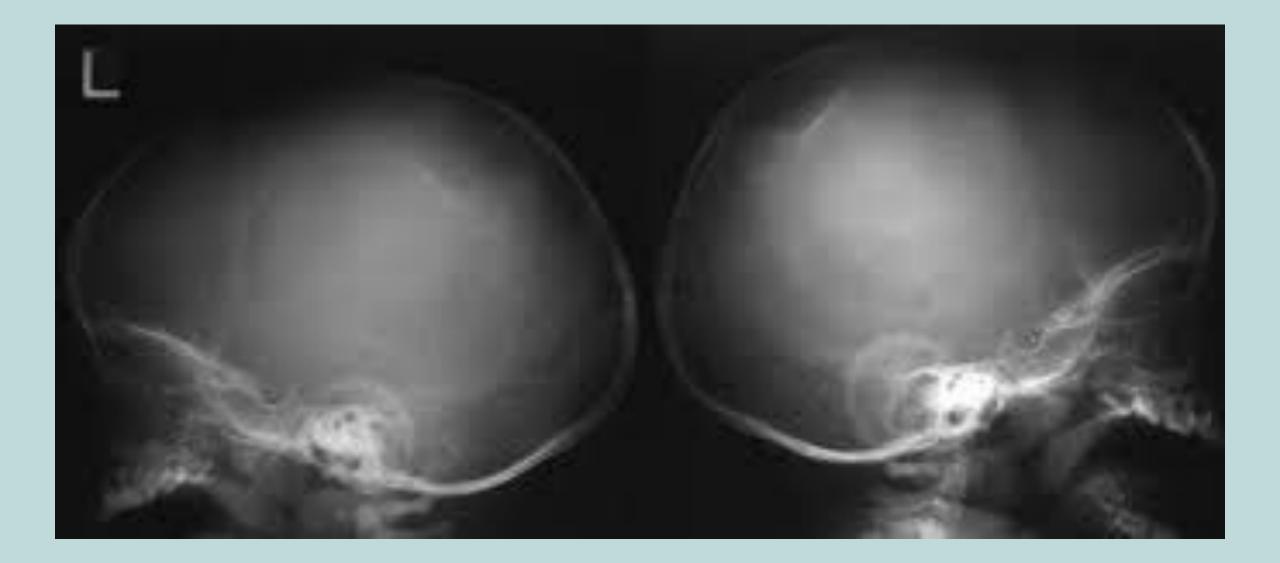
- Bone is crushed
- Common in bones with osteoporosis

Vertebra



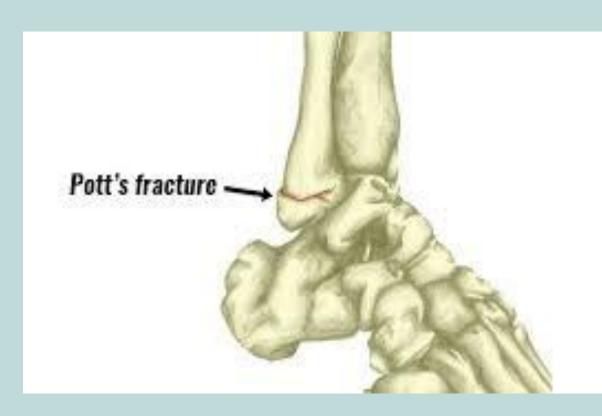
### Depression

- Broken bone is pressed inward
- Typical in skull



#### Other fractures

- Potts Fracture
  - athletes
- Colles Fracture
  - Fracture happened, but circumstances should not have broken bone
  - Could lead to other
  - Case history leads to bones being more fragile than usual





#### Treatment

- Immobilization with cast or traction
  - Depends on break severity, bone broken, and age of patient

- Reduction > realignment of broken bone
  - Closed skin: external manipulation
  - Open skin: internal surgery