A Classification of Fractures

Sticks and stones may break my bones but …
Closed or Open?

- **Closed**: They are also called “simple” fractures. There is no break in the skin and the break is completely inside the body.

- **Open**: Also called a “compound” fracture. These broken bones project through the skin.
TYPICAL BONE FRACTURES

Greenstick  Spiral  Comminuted  Transverse  Compound  Compression
Greenstick Fracture

- Only one side of the shaft is broken and the other side is bent.
- Common to young children, whose long bones have not completely ossified yet.
Comminuted Fracture

- Shatters the affected bone.
- This is a fracture of the radius.
Transverse Fracture

- A break across the long axis of the bone.
Spiral Fracture

- Caused by twisting force spread along the length of the bone.
- In Children that are not yet walking this is often a sign of child abuse.
Compression Fracture

- Usually in the vertebrae.
- Falling to the ground on your feet or butt – puts tremendous stress on the vertebrae.
Closed or simple fracture.
Open or compound fracture.
Transverse fracture.
Greenstick fracture.
Comminuted fracture.
Figure 1. An 18-year-old male high school baseball player experienced gradually increasing medial midfoot pain during the season. Oblique and lateral x-rays revealed no abnormalities, but an anteroposterior radiograph of his foot (a) revealed slight radiolucency at the navicular (arrow). A coronal CT scan (b) demonstrated a nondisplaced stress fracture running through the navicular from dorsal to plantar aspects (arrow). The patient responded to 8 weeks in a non-weight-bearing cast. His immobilization was supplemented with noninvasive electromagnetic bone stimulation.
A Colles’ Fracture – Scaphoid Fracture

Swelling and tenderness in this area are typical with a scaphoid fracture.
anterior-posterior view: spine

ribs

vertebra