

A Classification of Fractures

EQ: Why do bones break in different ways?

- I. Fractures
 - a. A fracture means that a bone has been cracked or broken.
 - b. It may be a simple crack or may break into two or more pieces
 - c. Two main types of breaks... Closed or Open?
 - i. Closed
 1. called “simple” fractures.
 2. There is no break in the skin
 3. break is completely inside the body.
 - ii. Open
 1. called a “compound” fracture
 2. broken bones project through the skin.
- II. Main Bone Fractures
 - a. Greenstick
 - i. Only one side of the shaft is broken and the other side is bent.
 - ii. Common to young children, whose long bones have not completely ossified yet.
 - b. Comminuted
 - i. Shatters the affected bone.
 - c. Transverse or complete or Complete Fracture
 - i. A break across the long axis of the bone.
 - ii. The bone breaks into 2 pieces
 - d. Spiral
 - i. Caused by twisting force spread along the length of the bone.
 - ii. In children that are not yet walking this is often a sign of child abuse.
 - e. Compression
 - i. Usually in the vertebrae.
 - ii. Falling to the ground on your feet or butt – puts tremendous stress on the vertebrae.
 - f. Stress Fracture
 - g. A Colles’ Fracture – Scaphoid Fracture
- III. Osteoporosis
 - a. Osteoporosis causes bones to become brittle
 - b. Loss of bone density is called osteoporosis, & can cause bone to become light, brittle, & easily broken
 - c. Who is at Risk?
 - i. Both men & women lose bone as we age
 - ii. But women are at greater risk for osteoporosis for 2 reasons.
 1. Women’s bones are smaller & lighter than men’s bones
 2. Female sex hormones decline during menopause – sex hormones help to maintain bone density
 - d. Prevention?
 - i. Increase your bone density
 - ii. This can only be done during your teens and twenties!
 - iii. Eat right and exercise – especially resistance exercise