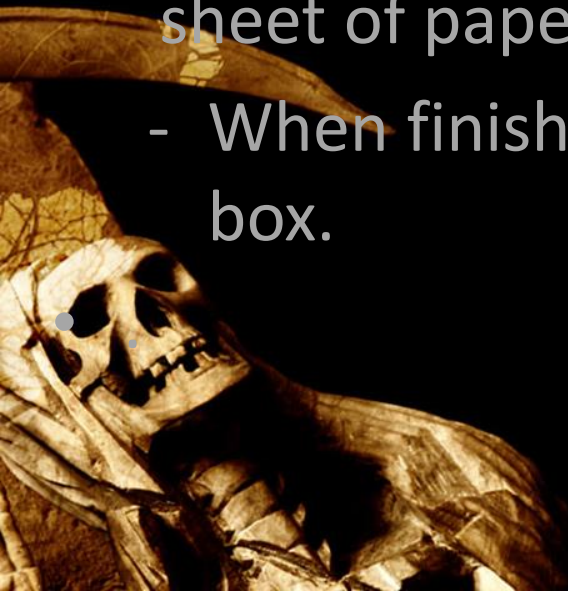


Today's Agenda: 10/7/14

1. In your textbook read section 7:4 The Skeletal System from pages 157 – 163.
 - When finished see me for a Skeletal Pathologies Graphic Organizer, complete the SPGO, then turn in to class box.
2. Go to one of the three skeletons in the room, on a sheet of paper label each of the numbered bones.
 - When finished staple to your SPGO and return to class box.
3. Edible Skeletons – sign up on the promethean board for one item to bring next class in order to create edible skeletons.



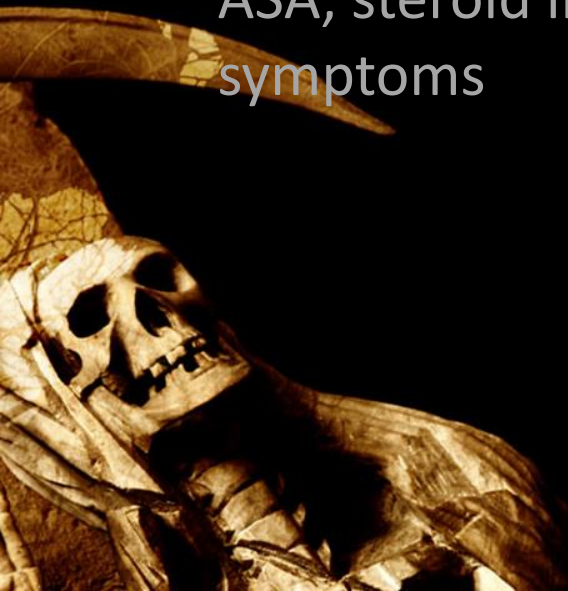
Arthritis – inflammation of jts

Osteoarthritis

- Most prevalent
- Et: Chronic from aging
- s/s: jt p!, stiffness, aching, limited ROM
- Tx: rest, thermal modalities, ASA, steroid inj to relieve symptoms

Rheumatoid Arthritis

- Et: chronic inflam dz affecting connective tissue and joints; result in scar tissue formation and bone atrophy
- Tx: ASA, steroids, joint replacement (arthroplasty)



Bursitis – inflam of bursae sac

- a small, fluid-filled sac surrounding the jts to prevent friction
- Et: overuse, direct blow
- s/s: severe p!, limited ROM, fluid accumulation in jt
- Tx: p! meds, aspiration of fluid c/ needle



Fractures – crack/break in a bone

Closed Fx

- All fx pieces stay inside the body.



Open Fx

- Fx piece exposed through skin



TYPES OF FRACTURES

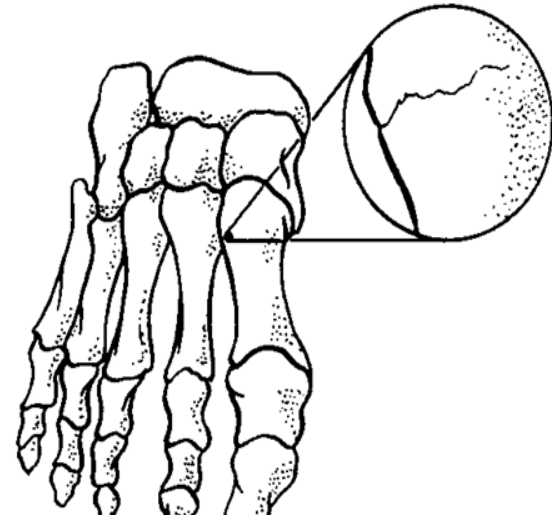
Avulsion

An avulsion occurs when a ligament or tendon pulls so hard at its bony attachment that a portion of the bone is torn away. Avulsion fractures are common with sprains, strains, and dislocations.



Stress

Stress fracture, also known as a fatigue fracture, occurs in a bone that has been subjected to a repetitive stress. That athlete will complain of a persistent sore spot over the bone. Stress fractures are microscopic and cannot be viewed on an X ray.



Spiral

A torsional force along the length of a bone causes a spiral fracture. Imagine that you are in-line skating and you are not very good—if your foot moves to the right while the rest of your body goes to the left, the stress may cause a spiral fracture. On an X ray, the spiral fracture looks like the stripe on a candy cane.



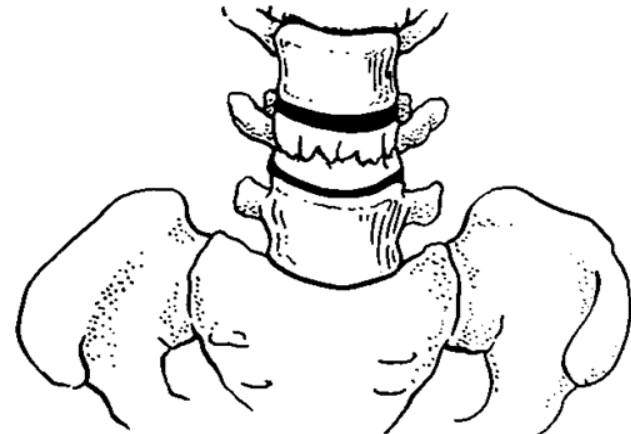
Longitudinal

A longitudinal fracture runs the length of a bone; it is usually caused by an impact. A pole-vaulter who misses the mat and lands on her feet is likely to suffer a longitudinal fracture.



Compression

A compression fracture occurs when opposing forces are applied to a bone from both ends at the same time. Compression fractures often occur in the spine. For example, a compression fracture may result when an athlete lands on his feet or buttocks from a height. The impact from the ground is one force, and the weight of the falling body is the other. The opposing forces cause the compression fracture in the vertebrae.



Oblique

Imagine a diagonal line across a bone from one side to another. You have just visualized an oblique fracture. An oblique fracture in a weight-bearing bone, such as a leg bone, takes longer to heal because the diagonal angle of the bone ends makes it easy for the bones to move out of alignment, even in a cast.



Comminuted

When a bone is crushed into smaller pieces, we say that it is comminuted—think of a baseball catcher whose bare hand is hit by a bat.



Greenstick

Adolescents' and children's bones are soft; that is, their bones still have some of the properties of cartilage. These bones tend to bend and fracture only partway through—this is known as a greenstick fracture.



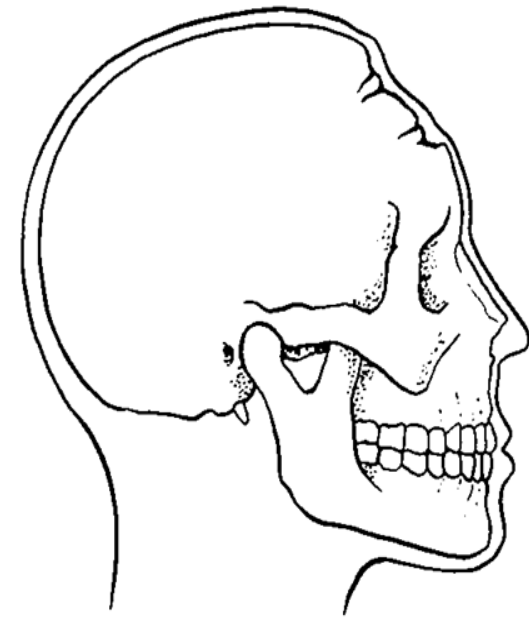
Transverse

A fracture that travels across a bone, perpendicular to that bone, is called transverse. Transverse fractures occur from impacts perpendicular to that bone. A lacrosse player who comes down with his stick across another player's forearms can cause a transverse fracture.



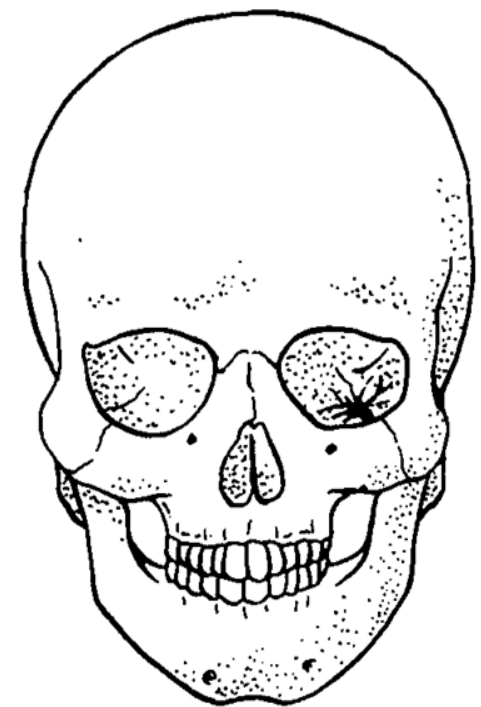
Depressed

A depressed fracture usually occurs from a direct impact to the skull, which, naturally rounded, indents. This indentation is called a depression.

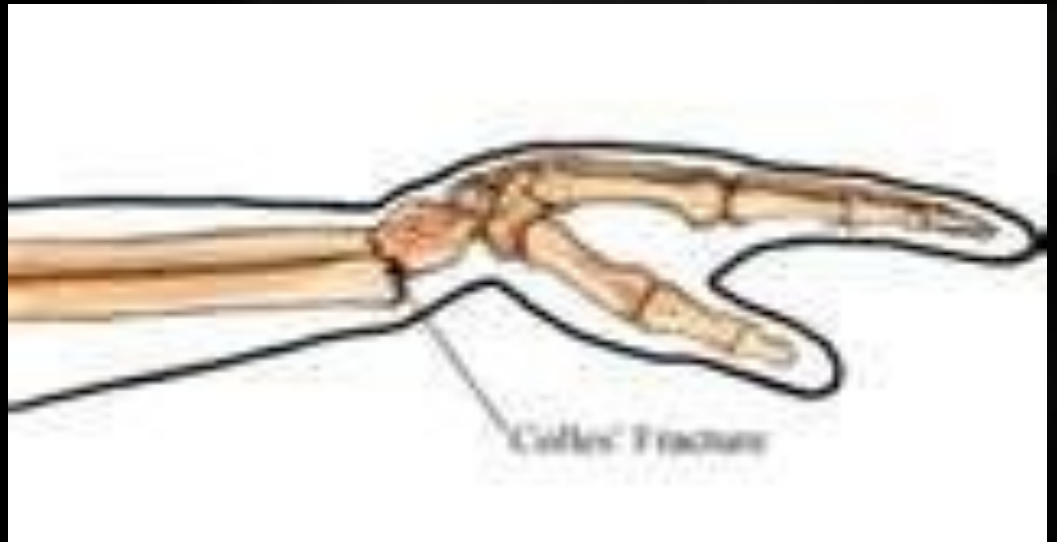


Blowout

A blowout fracture occurs when an eye is pushed hard backward and down into the eye socket. The small bones under the eye are crushed and embedded into the muscles of the eye. A blowout can occur when a hard object like a baseball strikes the eye.



Colles Fx



Fx Tx: Reduction

- Open Reduction

- Surgical repair of the bone.



- Closed Reduction

- Positioning the bone correctly, usually with traction, and applying a cast.



Dislocation – bone is displaced from jt and stays out of place

- **Subluxation** – Bone goes out of joint then right back in.



Sprain – overstretched ligament that stabilizes a jt



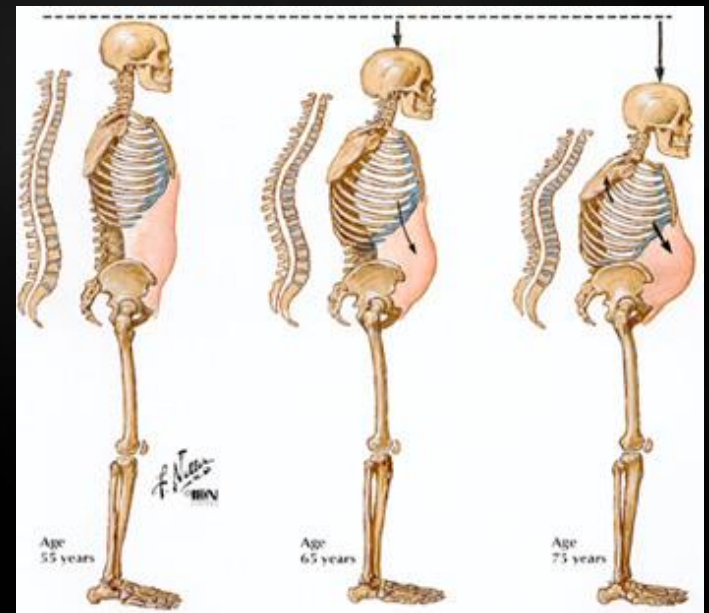
Osteomyelitis

- Et: bone inflammation usually caused by a pathogenic organism; causes a formation of an abscess c/in the bone & an accumulation of pus in the medullary canal.
- s/s: P! at the site, swelling, chills, fever
- Tx: antibiotics



Osteoporosis – brittle/soft bone

- Et: a hormone deficiency, prolonged lack of Ca in the diet, and a sedentary lifestyle.
- Dx: bone density test
- Tx: Ca supplements, exrs, estrogen replacement



Ruptured Disk

- Et: Herniated or slipped disk. Occurs when the intervertebral disk ruptures or protrudes out of place & causes pressure on the spinal nerves.
- s/s: p!, mm spasm, impaired mvmt, numbness
- Tx: mm relaxants, PT, thermal modalities, laminectomy



Spinal Curvatures

Kyphosis – rounded bowing of thoracic area, “hunchback”

Scoliosis – lateral, side-to-side curve

Lordosis – abnormal inward curve of lumbar area, “swayback”

Et: poor posture, congenital defects, malnutrition

Tx: PT, firm mattress, braces, surgical repair

