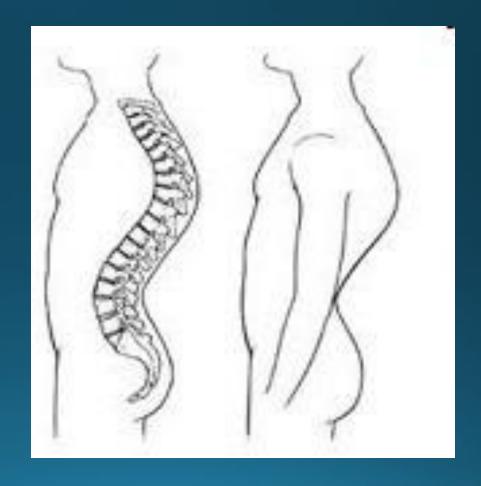
# Phylogenetic disorders of skeletal system

Submitted By Nadagouda Aditya Chidambar

#### **KYPHOSIS**

Abnormal rounding of the spine that occurs in the upper and middle part of the back



#### Causes of KYPOSIS

- Poor posture
- Present at birth
- Run families or genetics

#### RICKETS

Bone-softening disease that causes severe bowing of the legs, poor growth, and sometimes muscle pain and weakness



#### Causes of RICKETS

- Lack of Vitamin D
- Not enough calcium in one's diet
- kidney and liver diseases

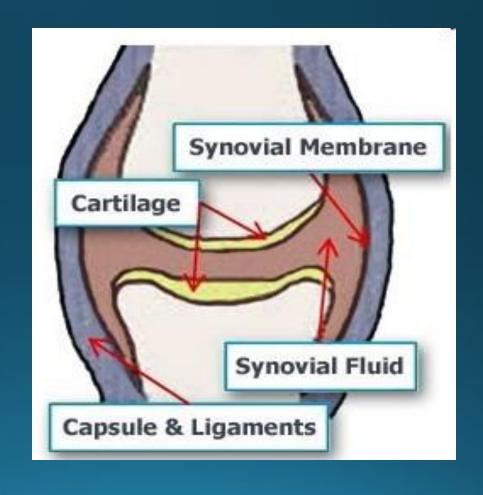
#### **ARTHRITIS**

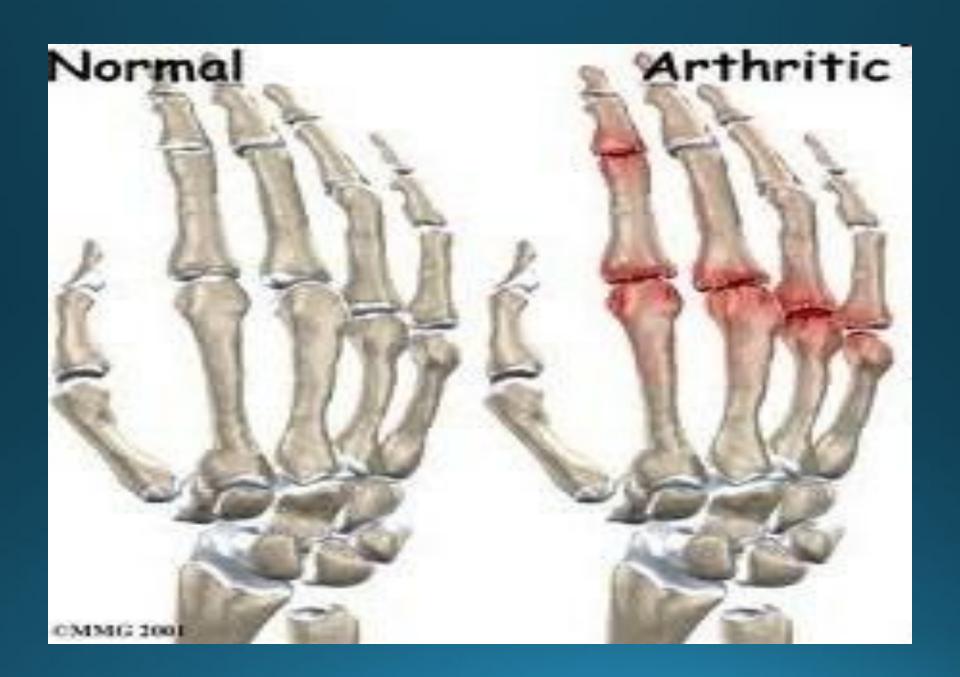
Inflammation, swelling, redness of a joint



#### Causes of ARTHRITIS

- cartilage is wearing away
- lack of Synovial fluid
- infection





Normal

Articular

Cross Section CMC Joint

#### Arthritic

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#### **OSTEOPOROSIS**

Bone tissue becomes brittle, thin, and spongy



#### Causes of OSTEOPOROSIS

- Hereditary
- Gender
- Ethnicity
- History of broken bones
- Low body weight



#### BONE TUMOR

Abnormal growth of cells within the bone that may be noncancerous or cancerous

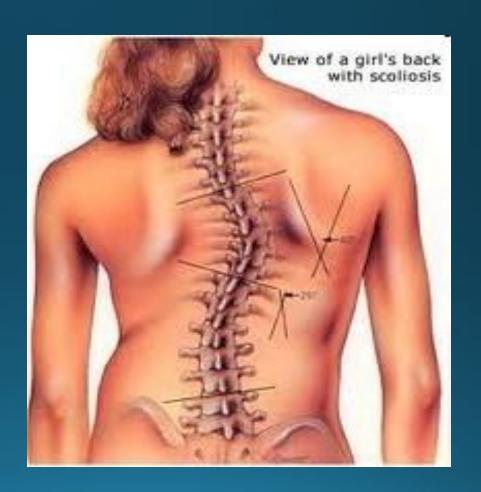


#### Causes of BONE TUMOR

- Hereditary
- Radiation
- Trauma

#### **SCOLIOSIS**

Causes the spine to curve to the left or right side



#### Causes of SCOLIOSIS

- Present at birth
- Hereditary

# Normal spine Scoliotic spine \*ADAM.

#### **SPRAINS**

An injury that happens when the ligaments get overly stretched or torn





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#### FRACTURES

Simple fracture



Comminuted fracture



Open

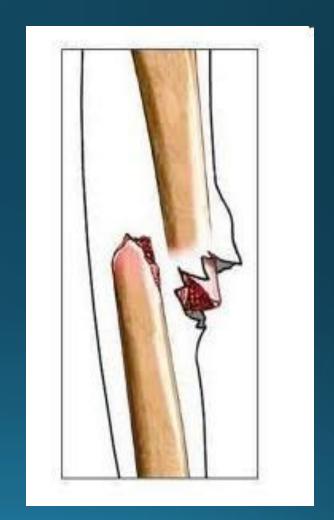




Fractures commonly occur when a person has fallen, an object has been dropped on them, or the bone has been twisted

### Compound Fracture

A fracture in which broken bone fragments lacerate (rip, cut, tear) soft tissue and protrude through an open wound in the skin



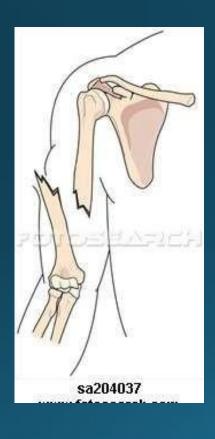
#### Compound Fracture

- Need immediate treatment (because skin is broken)
- High risk of infection
- An operation is often required to clean the area of the fracture and realign the bone

## Compound Fracture

Typically caused by high energy injuries such as car crashes, falls, or sport injuries

# Compound Fracture (cont.)







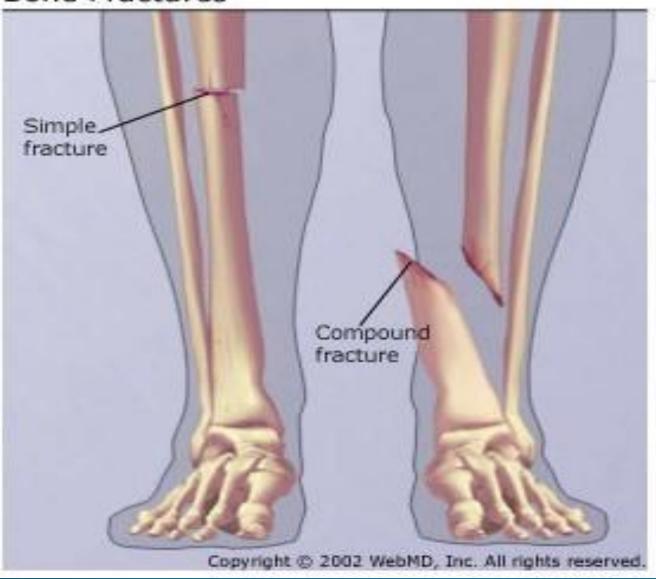


### Simple Fracture

A bone that has broken into two pieces, and has not broken through the skin



#### Bone Fractures



#### Greenstick Fracture

Is a fracture in a young, soft bone in which the bone bends and partially breaks (cracks)



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#### Greenstick Fracture

- Is a type of an incomplete fracture
- Doesn't displace the bone
- Often occurs during infancy and childhood when the bones are soft

#### Greenstick Fracture

- Is a result of bending forces (falls)
- Could be a result of non-accidental injury (blow on the forearm or shin)

#### Comminuted Fracture

Defined as a bone that has been shattered, splintered, or crushed into more than two pieces



#### Comminuted Fracture

- Occurs when there has been some kind of crushing force on the bone and can happen anywhere along the bone
- It mostly occurs in elderly people or people who already have a bone weakening condition

#### Post-accident Condition

#### Normal Anatomy





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