



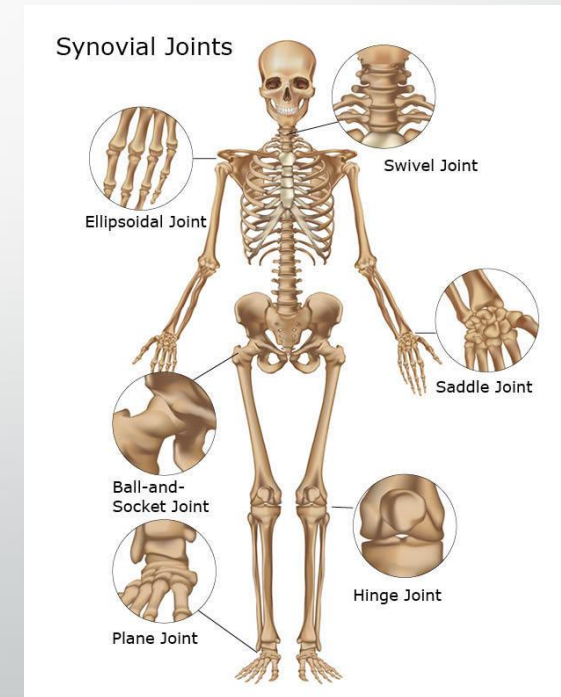
What is the skeletal system?



What is the function of the skeletal system?

# Function of the skeletal system

- Allows movement
- Provides support
- Protects soft organs inside the body





What are the parts of the skeleton?

# Parts of the skeleton

- Axial – head, ribs and spinal column
- Appendicular – arms, legs and shoulders

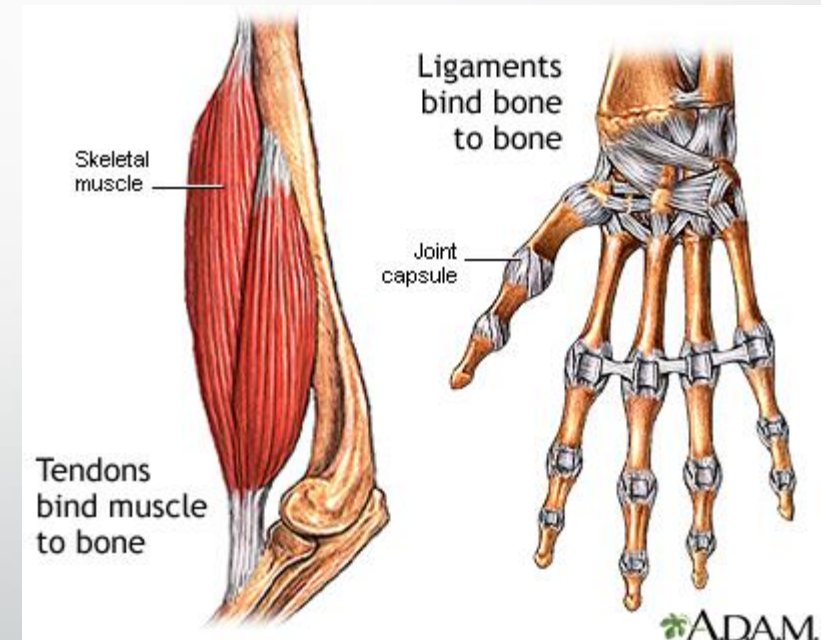




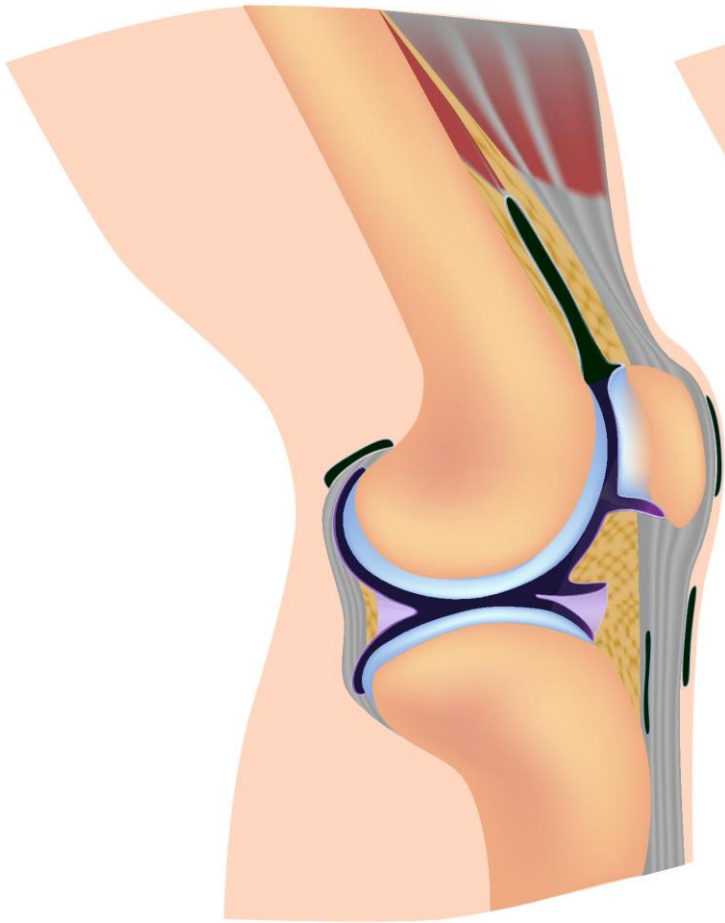
What are bones?

# Bones

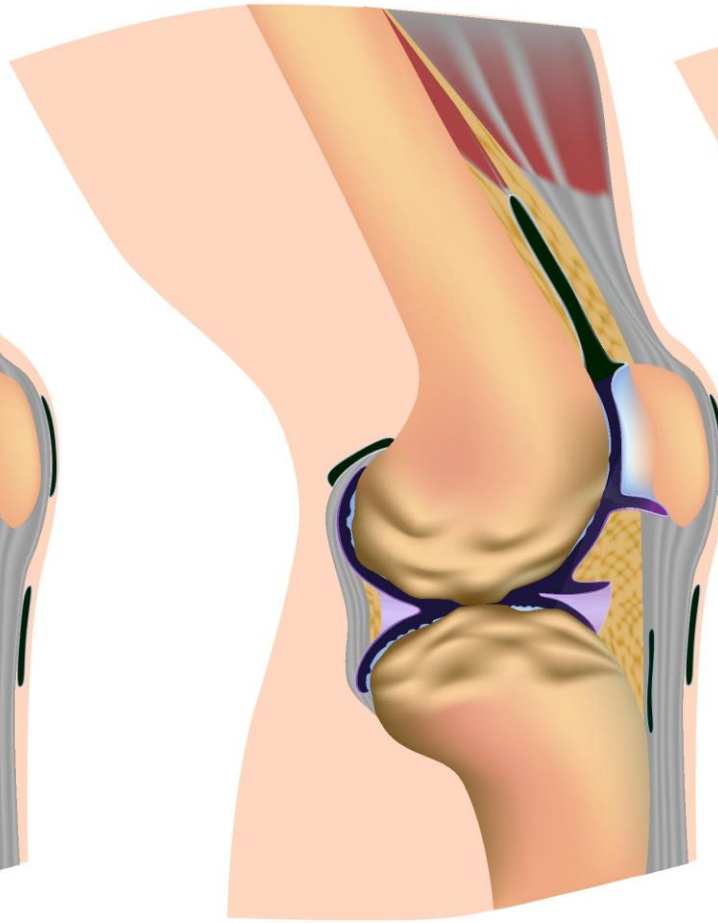
- Strong structures that provide shape and protection
- **Ligaments** are tissues that fasten bones together
- **Cartilage** is the tissue that acts as a buffer between bones



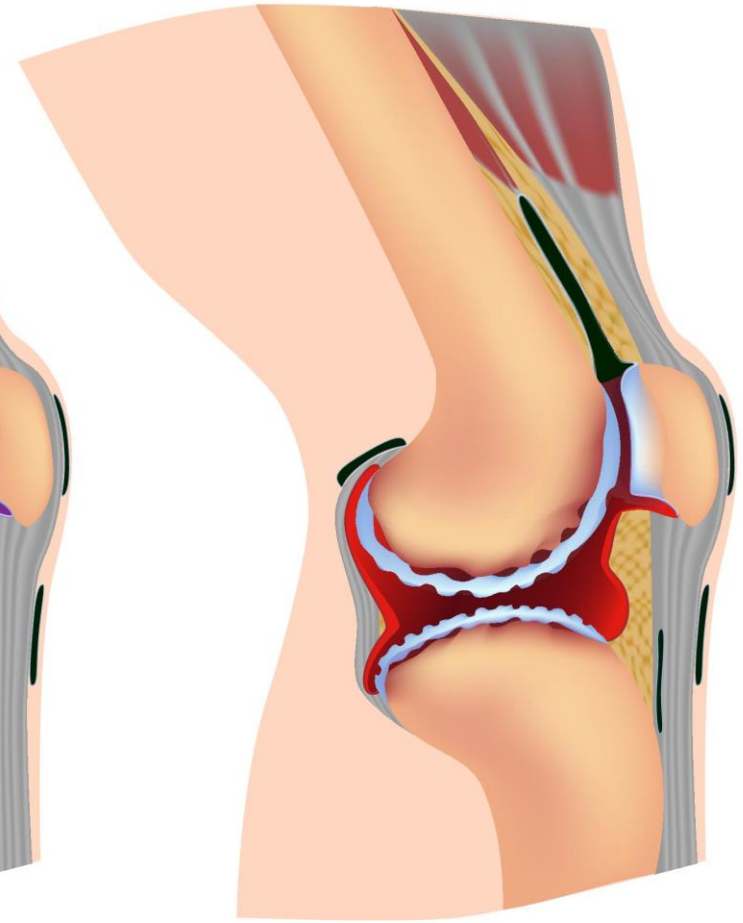
## Common types of Arthritis



Healthy Joint

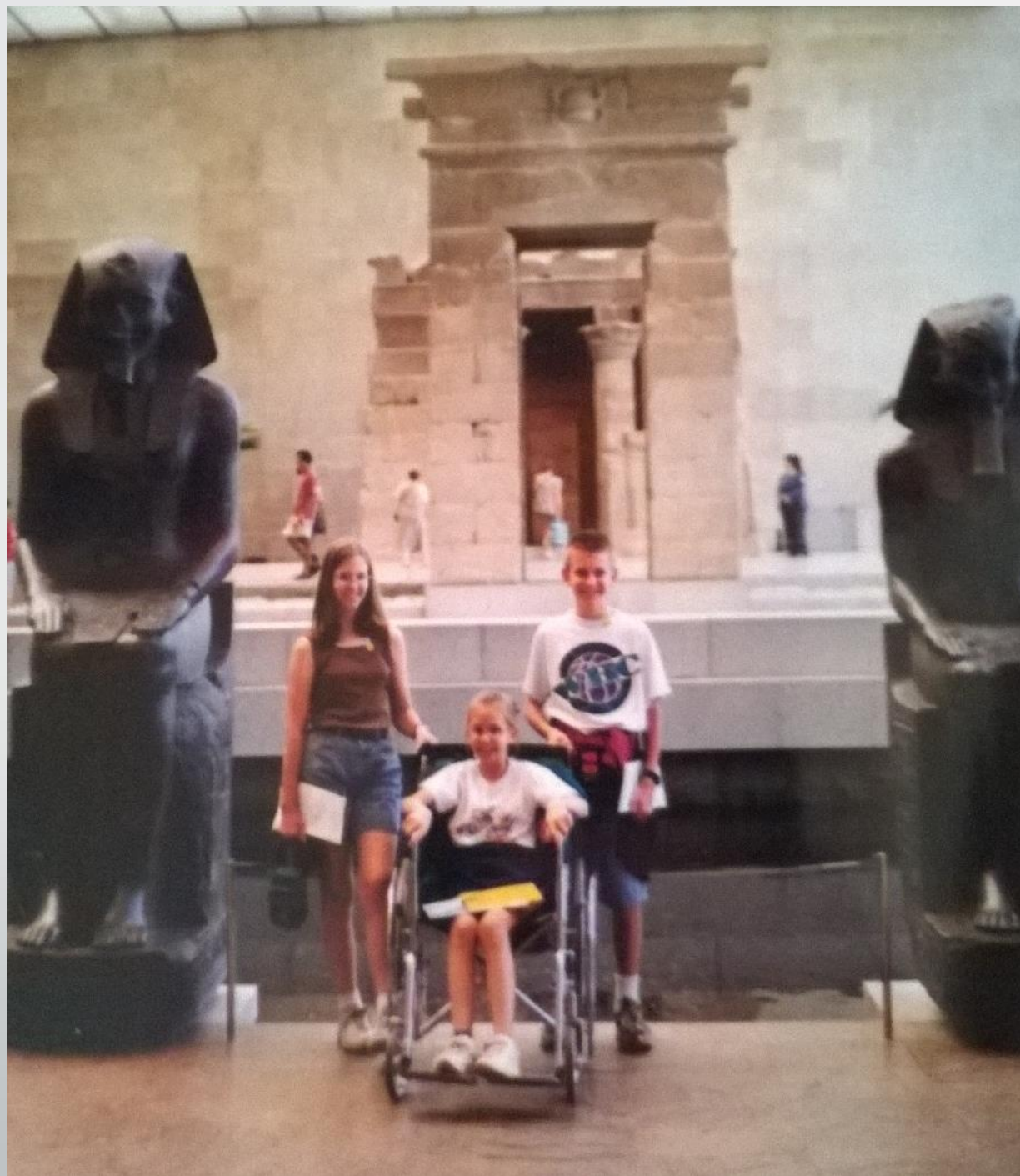


Osteoarthritis



Rheumatoid Arthritis



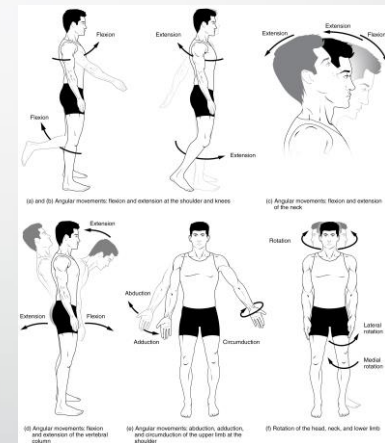




What are joints?

# Joints

- Where two bones meet
- Can be movable or fixed
- Are needed for any bending movement



# Types of Joints

1. Hinged Joint – can only flex or extend in one direction

- Example – ankle, elbow and knee



# Types of Joints

2. Gliding Joint – where the bones slide or glide in flat planes

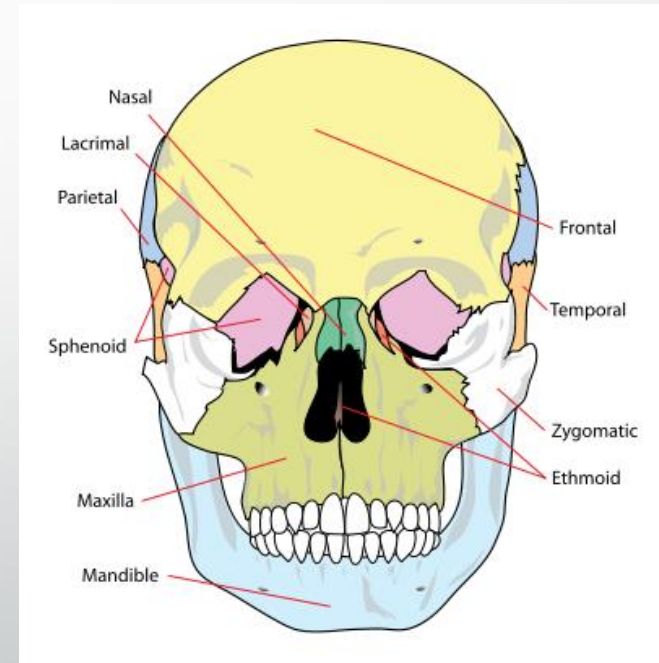
- Example – fingers, wrist and spine



# Types of Joints

3. Immoveable Joint –  
where two bones join  
together with little or no  
movement

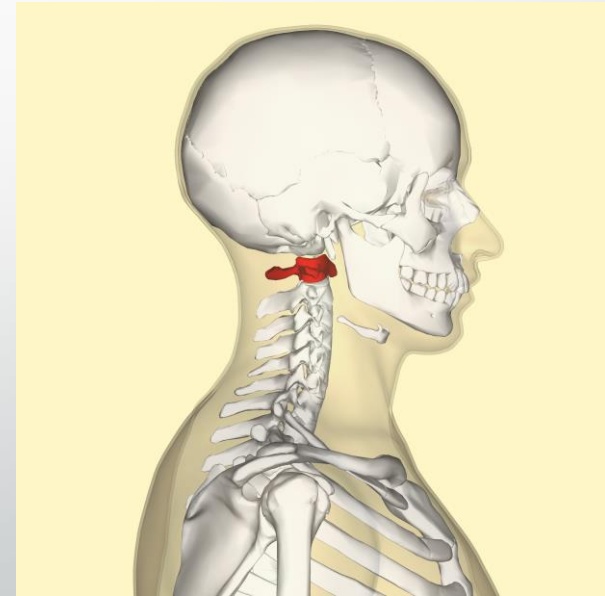
- Example – skull



# Types of Joints

4. Pivot Joint – a joint that only allows rotation movement

- Example – head and forearms





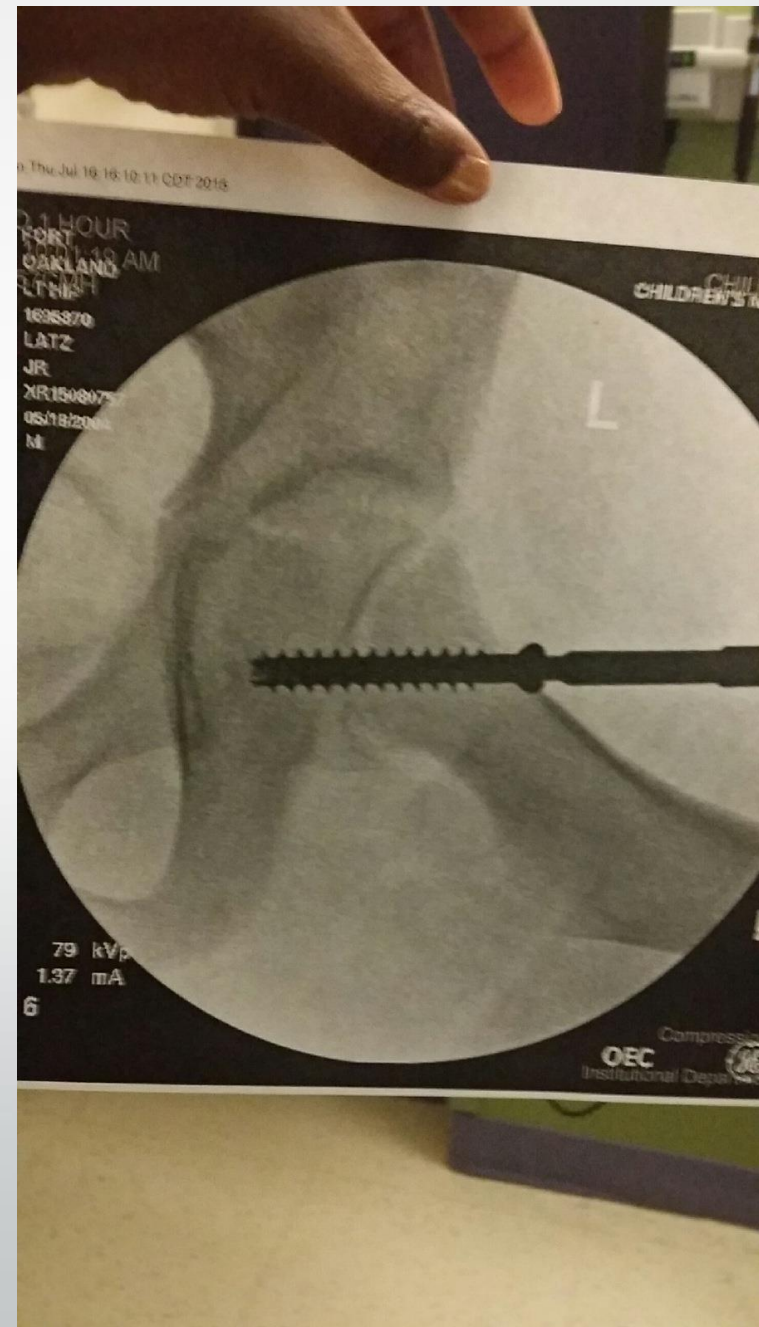
# Types of Joints

5. Ball and Socket Joint – allows for a wide range of motions

- Example – hips and shoulders









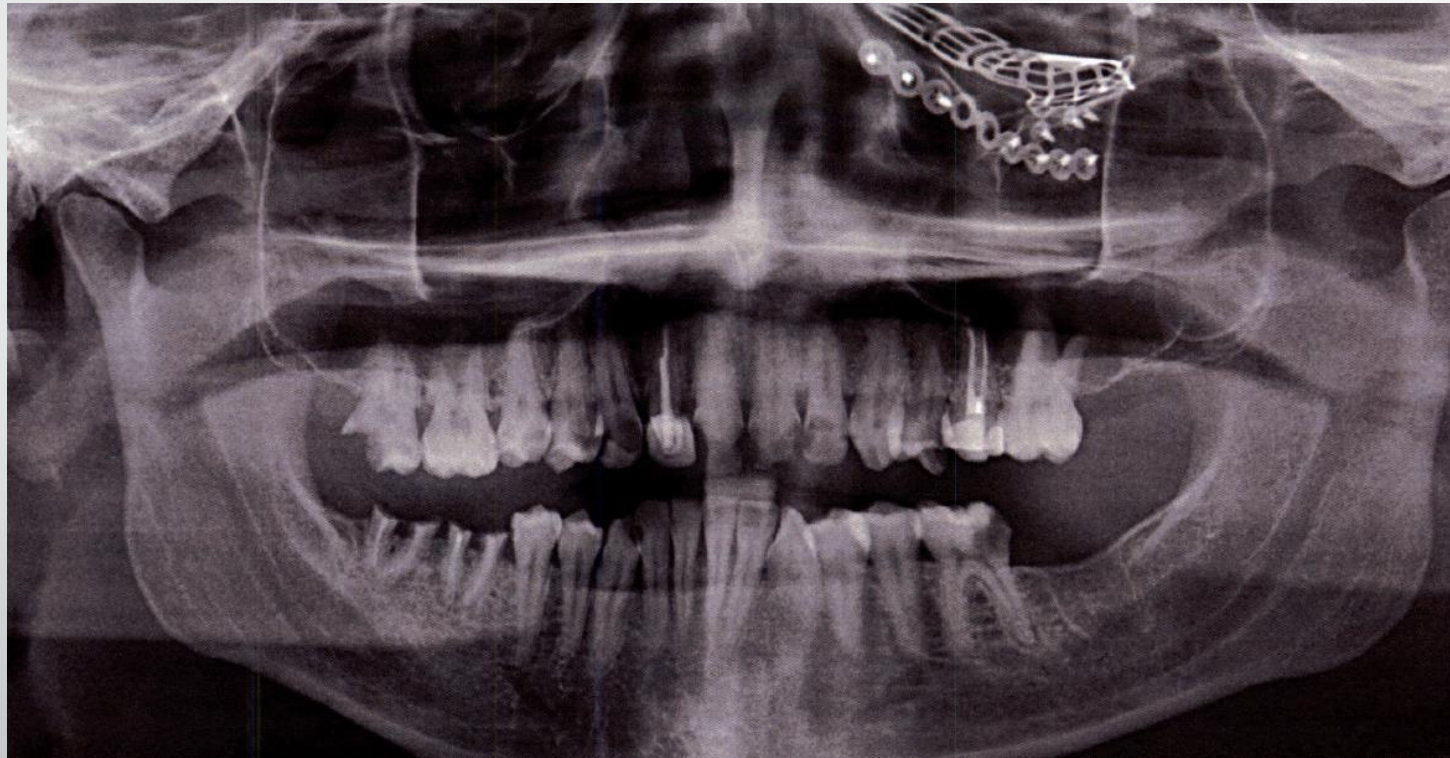
# Skeletal and Joints Video

<https://www.youtube.com/watch?v=J8x6tZl2hVI>

# What is the difference between x-rays, MRIs and CT scans?

- X-Rays – type of radiation that passes through the body and makes the dense objects (like bones) appear white on the x-ray film
- Magnetic Resonance Imaging (MRI) – combines a powerful magnet with radio waves (NOT x-rays) and a computer to manipulate these magnetic elements and create highly detailed images of structures in the body. Images are viewed as cross sections of the body part being scanned.
- Computed Tomography (CT) scan or a CAT scan – sophisticated, powerful x-ray that takes 360-degree pictures of internal organs, the spine and vertebrae.

# X-ray of the Face

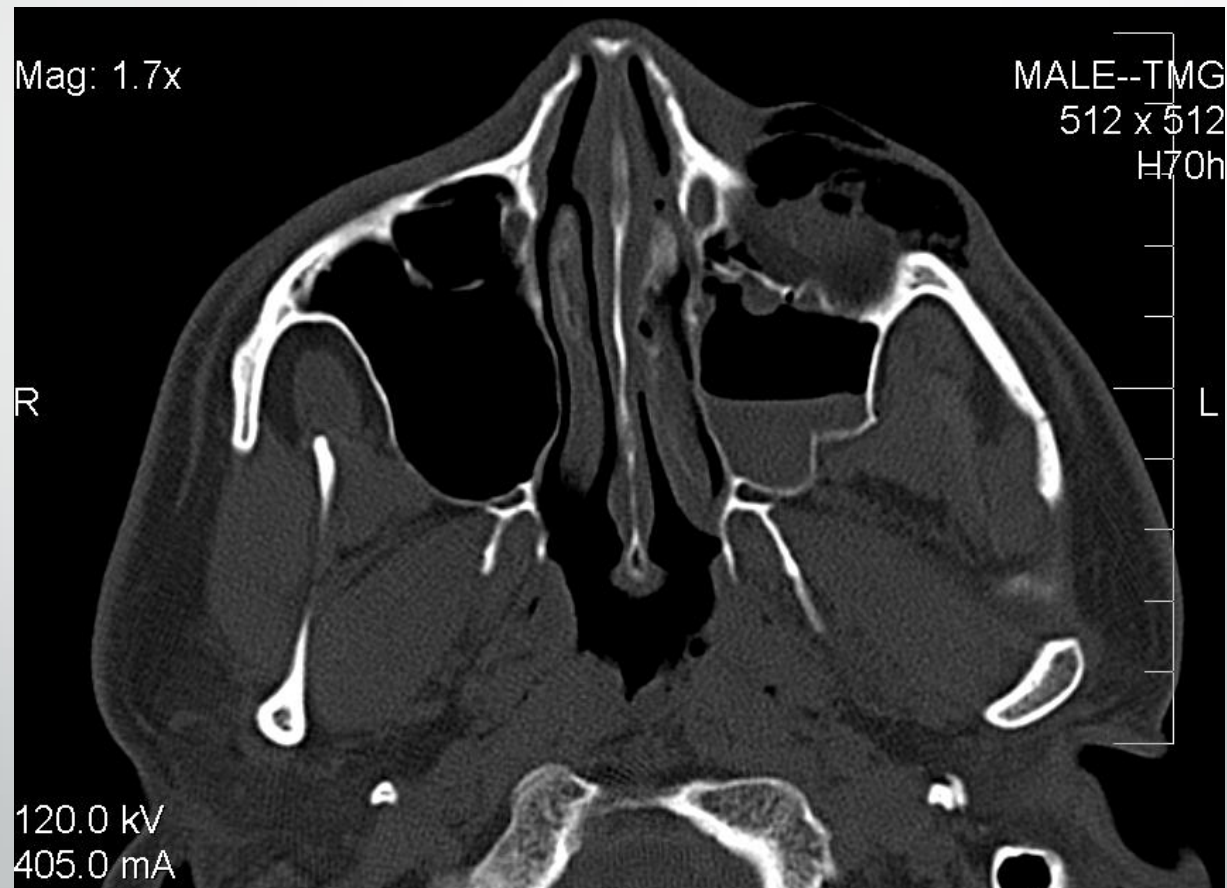




# MRI of Torn Achilles Tendon



# Still of a CT Scan





And now for an actual CT Scan...