



SNS COLLEGE OF ALLIED HEALTH SCIENCES

SNS Kalvi Nagar, Coimbatore - 35

Affiliated to Dr MGR Medical University, Chennai



DEPARTMENT OF RADIOGRAPHY AND IMAGING TECHNOLOGY

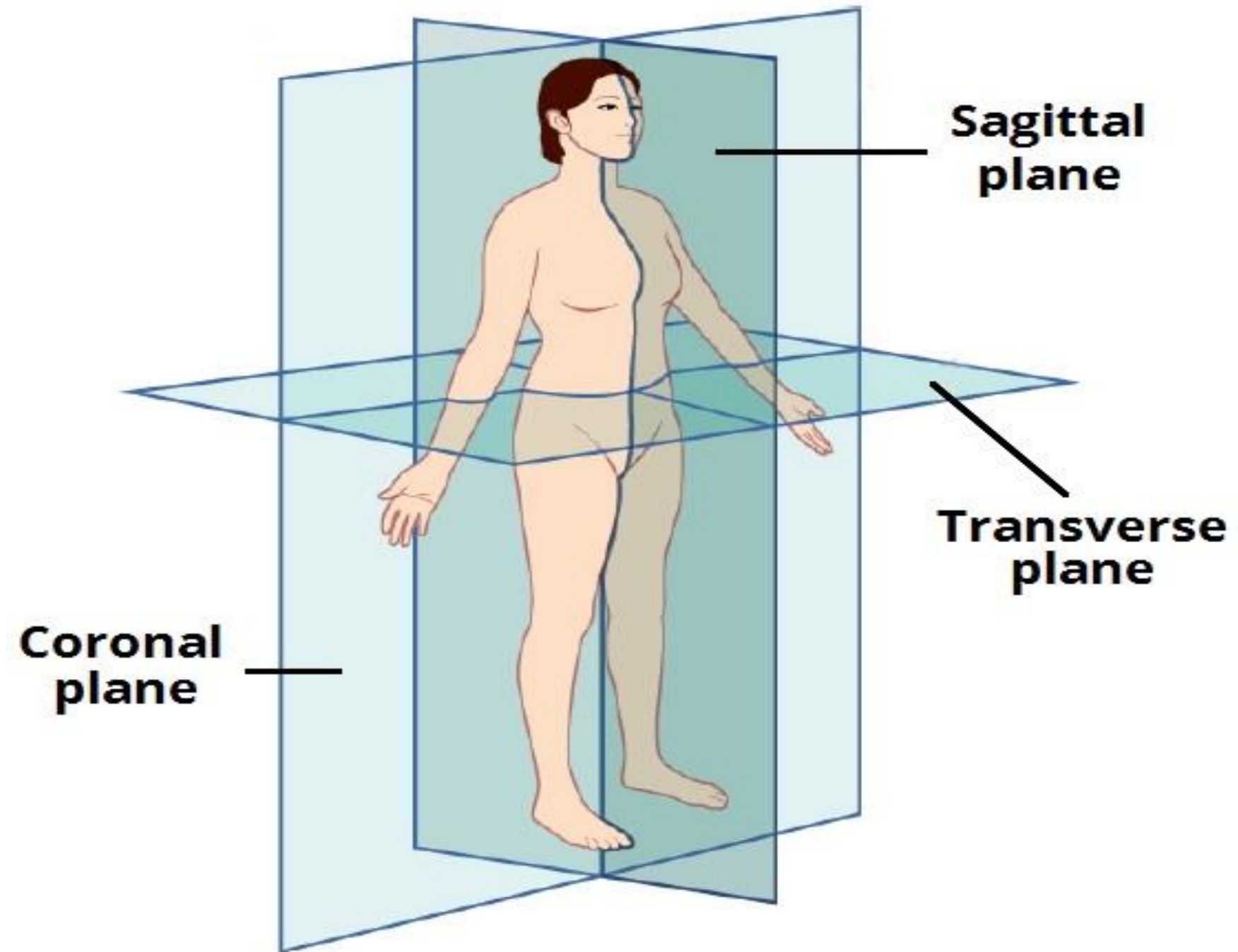
II YEAR

TOPIC – RADIOGRAPHIC PROJECTIONS OF

HAND, FINGERS, THUMB & SCAPHOID



INTRODUCTION - ANATOMICAL PLANES





ANATOMICAL PLANES



- ❖ SAGITTAL PLANE – Imaginary vertical plane divides the body into two equal halves.
- ❖ CORONAL PLANE – Imaginary vertical plane passing through the body at right angles to the median plane, dividing it into anterior (front) and posterior(back) portions.
- ❖ TRANSVERSE PLANE – Imaginary vertical plane which divides the body into superior(upper) and inferior(lower) parts.



ANATOMICAL TERMS



- ❖ Proximal-nearer to the trunk/point of origin
- ❖ Distal-away from the trunk/point of origin
- ❖ Superficial-nearer to/on the surface
- ❖ Deep-farther from the surface
- ❖ External-towards/on the exterior
- ❖ Internal-towards/in the interior
- ❖ Central-nearer to/towards the center



ANATOMICAL TERMS



- ❖ Flexion- bending/making a decreasing angle between the bones or parts of the body.
- ❖ Extension- straightening of a bent part or making an increasing the angle between bones of the body.
- ❖ Abduction- moving away from the median plane,
- ❖ Adduction – moving toward the median plane
- ❖ Medial Rotation – inward rotation.
- ❖ Lateral rotation – outward rotation



ANATOMICAL TERMS



- ❖ Circumduction- circular movement combining flexion,extension,adduction and abduction.
- ❖ Supination – rotation of forearm so that the palm is turned forwards.
- ❖ Pronation- rotation of forearm so that the palm is turned backwards.
- ❖ Inversion-raising the medial border of the foot.
- ❖ Eversion- raising the lateral border of the foot.



- ❖ Axial skeleton - 80 bones (Spine, chest and head)
- ❖ Appendicular skeleton - 126 bones (arms and legs including shoulder and pelvic girdle)



ASSESSMENT



- ❖ How many number of bones in the body?
- ❖ What are the three anatomical planes of the body?
- ❖ What is axial and appendicular skeleton?
- ❖ Difference between Conventional Radiography, CR and DR.
- ❖ Define cassette.



UPPER EXTREMITY RADIOGRAPHY



- ❖ **Upper limb radiography** is the radiological investigation of the shoulder girdle, humerus, ulna, radius, carpals and metacarpals of the hand.

To rule out,

- ❖ Fracture and dislocation
- ❖ Serious injury or foreign body
- ❖ Pathology such as rheumatoid arthritis
- ❖ Trauma



HAND



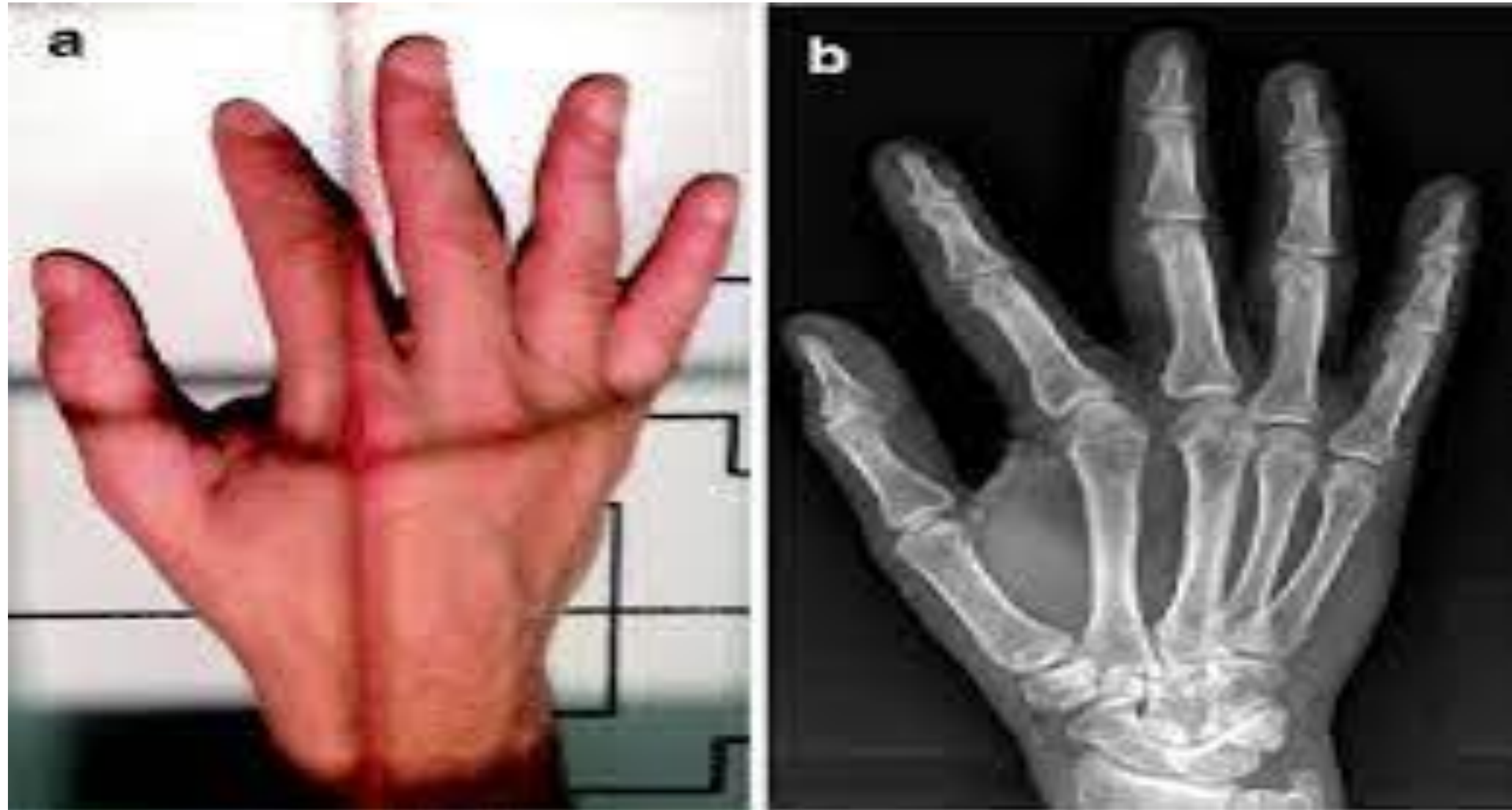
PROJECTIONS:

- ❖ Postero –anterior(dorsi palmar)
- ❖ Anterior oblique(dorsi palmar oblique)
- ❖ Postero anterior(both hands)
- ❖ Posterior oblique – both hands(ball catchers or Norgaard projection)
- ❖ Lateral

POSTERO ANTERIOR

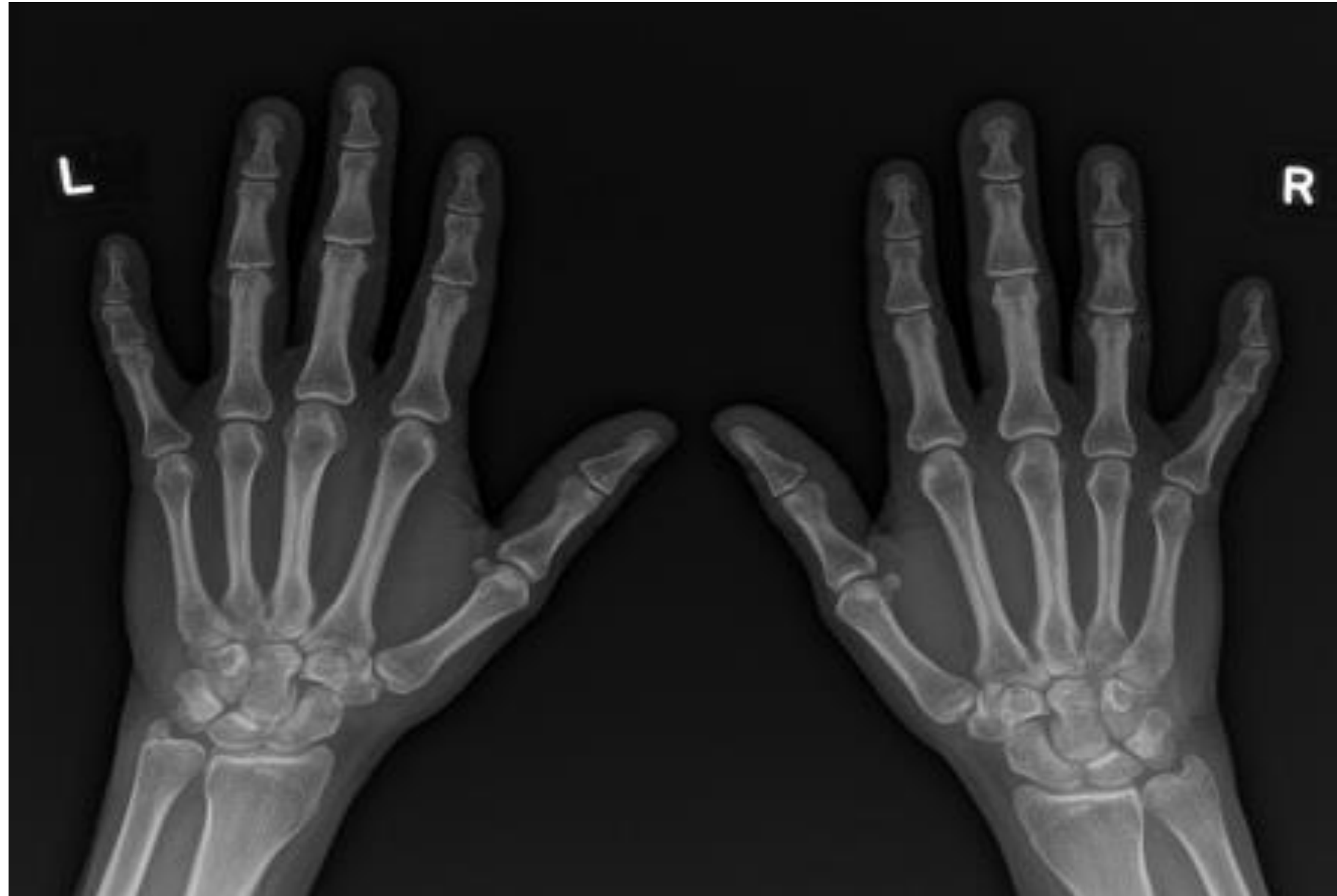


ANTERIOR OBLIQUE





POSTERO ANTERIOR (BOTH HANDS)





POSTERIOR OBLIQUE (BALL CATCHERS VIEW)





Normal radiograph of hands in ball catcher's position.



LATERAL





FINGERS

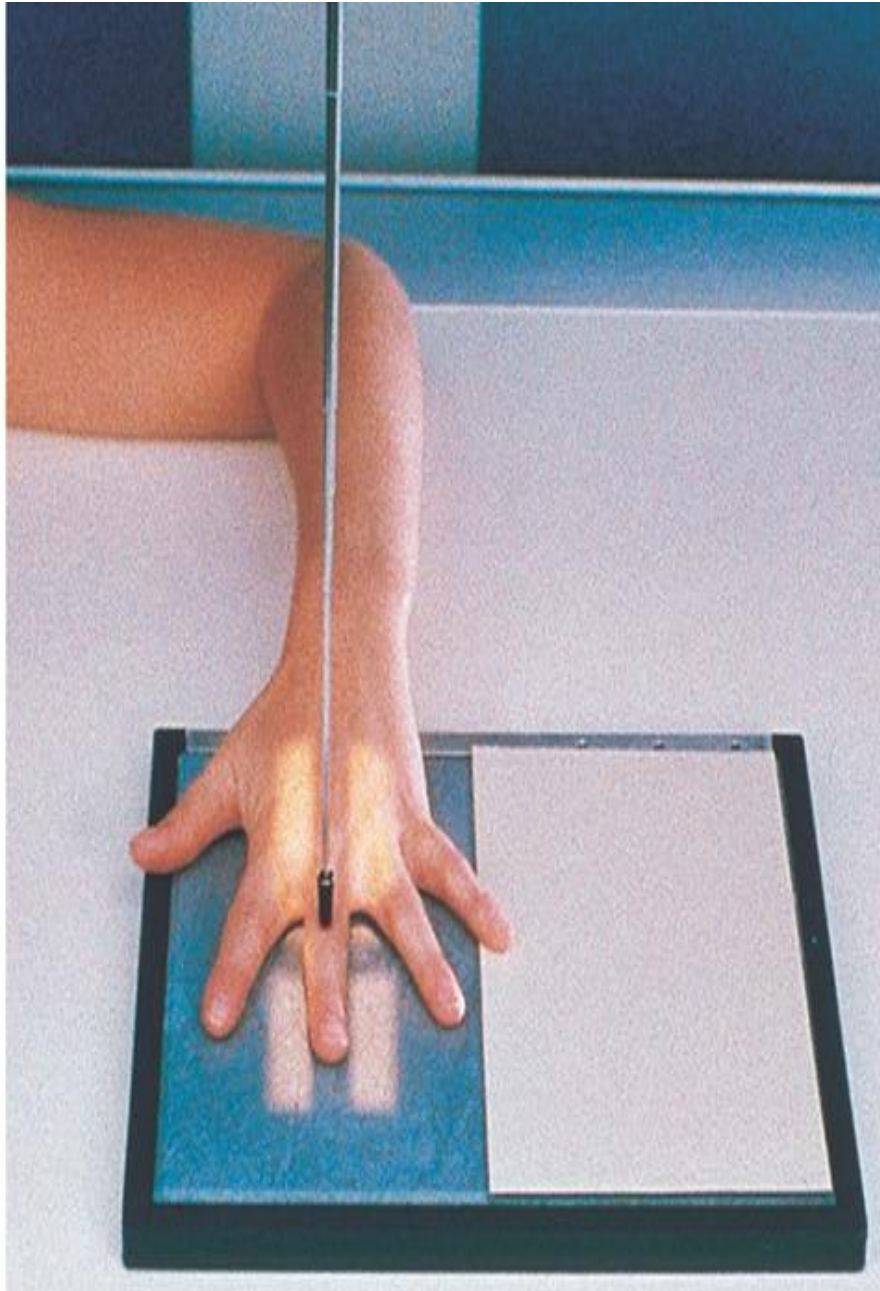


- ❖ Postero –anterior
- ❖ Lateral – index and middle finger
- ❖ Lateral – ring and little finger

THUMB:

- ❖ Lateral
- ❖ Antero-posterior
- ❖ Postero anterior

FINGERS



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THUMB – ANTERO POSTERIOR





ASSESSMENT



- Name the carpal bones?



PROJECTIONS OF SCAPHOID



- ❖ Postero-anterior (ulnar deviation)
- ❖ Anterior oblique (ulnar deviation)
- ❖ Posterior oblique
- ❖ lateral

PROJECTIONS OF SCAPHOID

POSTERO-ANTERIOR (ULNAR DEVIATION)



PROJECTIONS OF SCAPHOID



