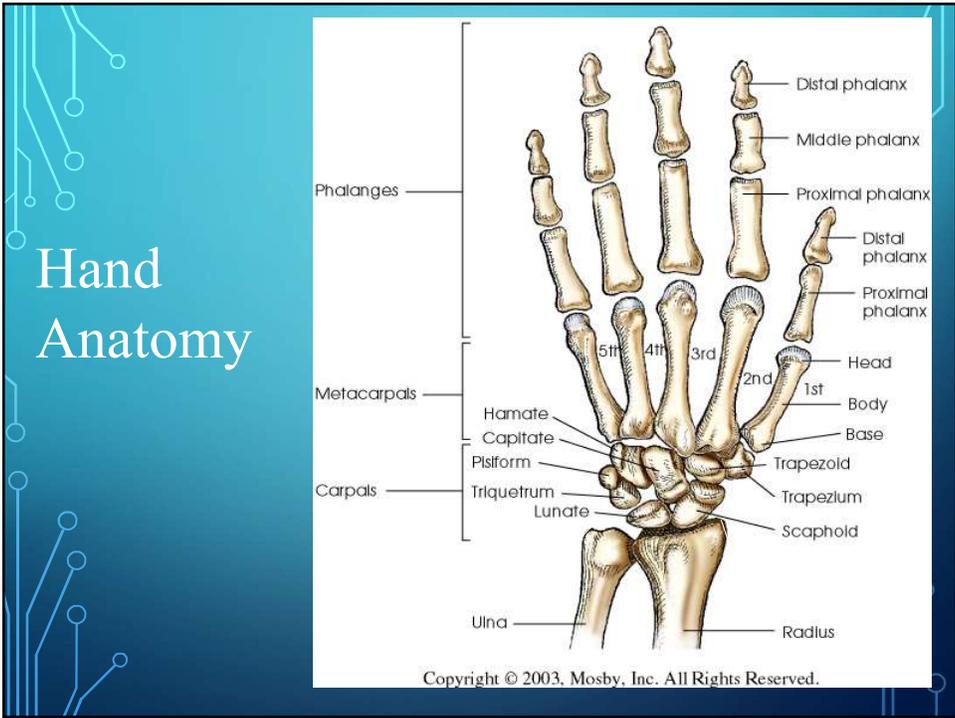


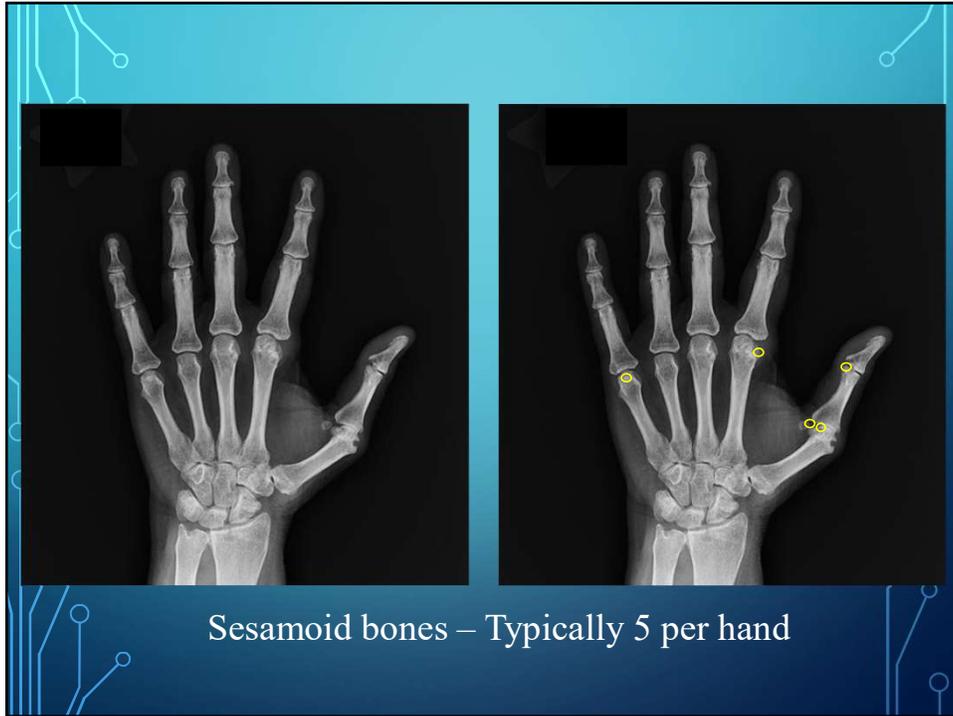
# MI133: CLINICAL SEMINAR II

## HAND & WRIST ANATOMY

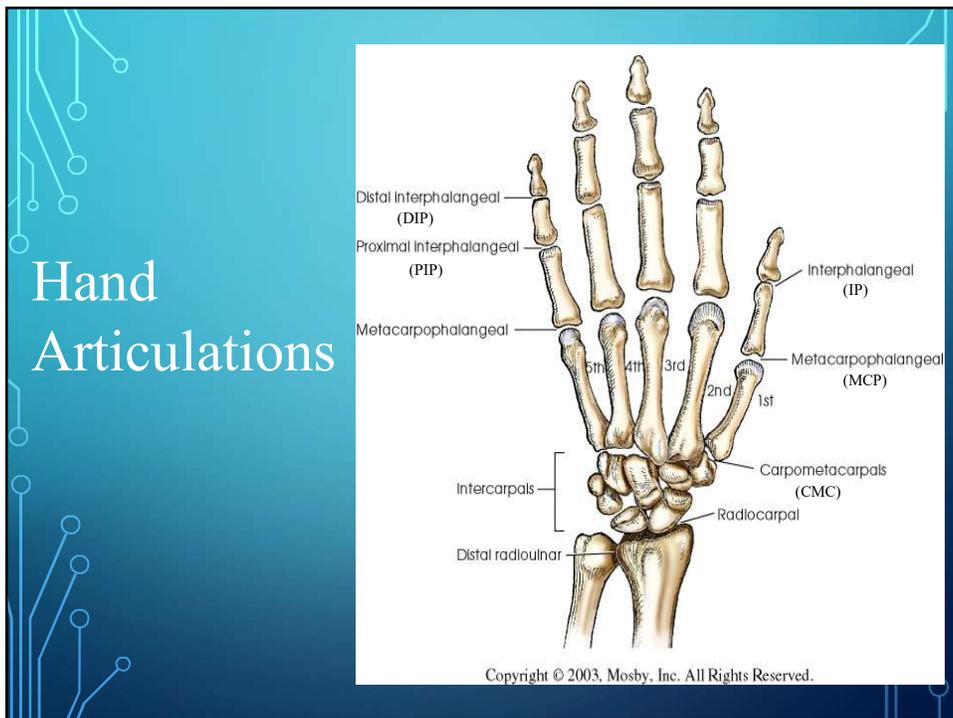
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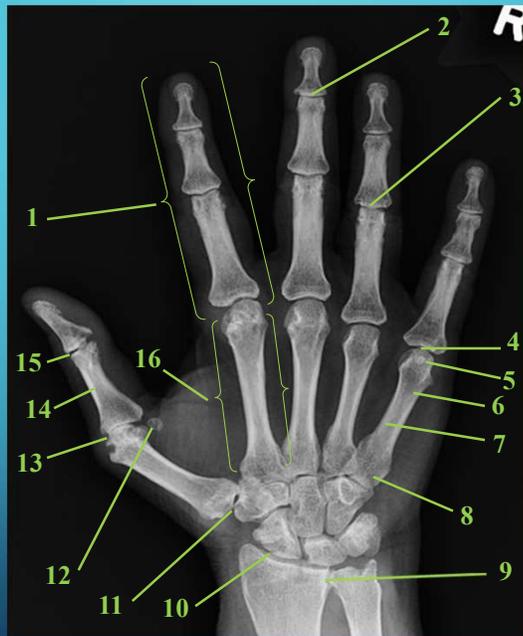


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## JOINTS OF FINGER, THUMB AND HAND

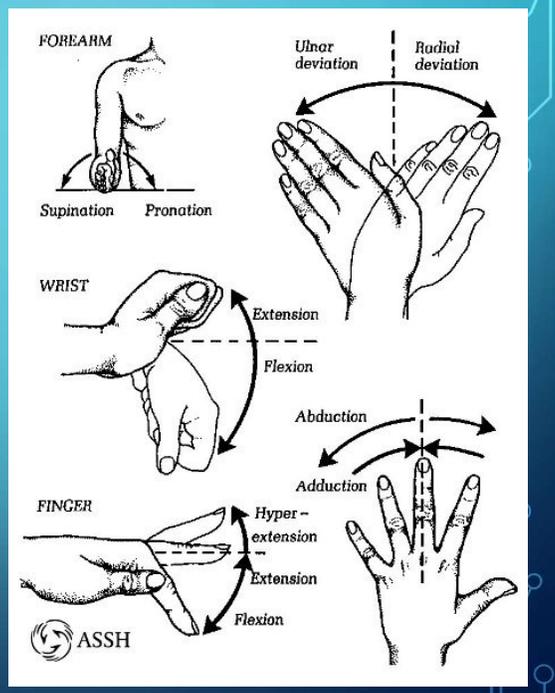
Joint	Tissue	Type	Movement
Interphalangeal (IP)	Synovial	Hinge	Freely Movable
Metacarpophalangeal (MCP)	Synovial	Ellipsoidal	Freely Movable
Carpometacarpal			
• First digit	Synovial	Saddle	Freely Movable
• 2 <sup>nd</sup> -5 <sup>th</sup> digit	Synovial	Gliding	Freely Movable
• Radiocarpal	Synovial	Ellipsoidal	Freely Movable
• Radioulnar (Distal)	Synovial	Pivot	Freely Moveable

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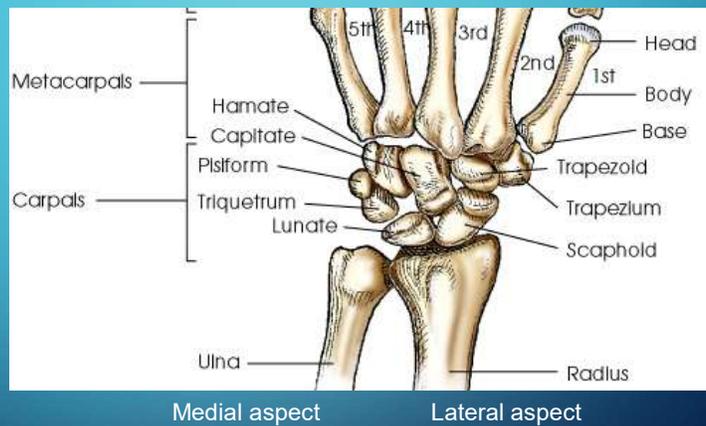
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# Movements

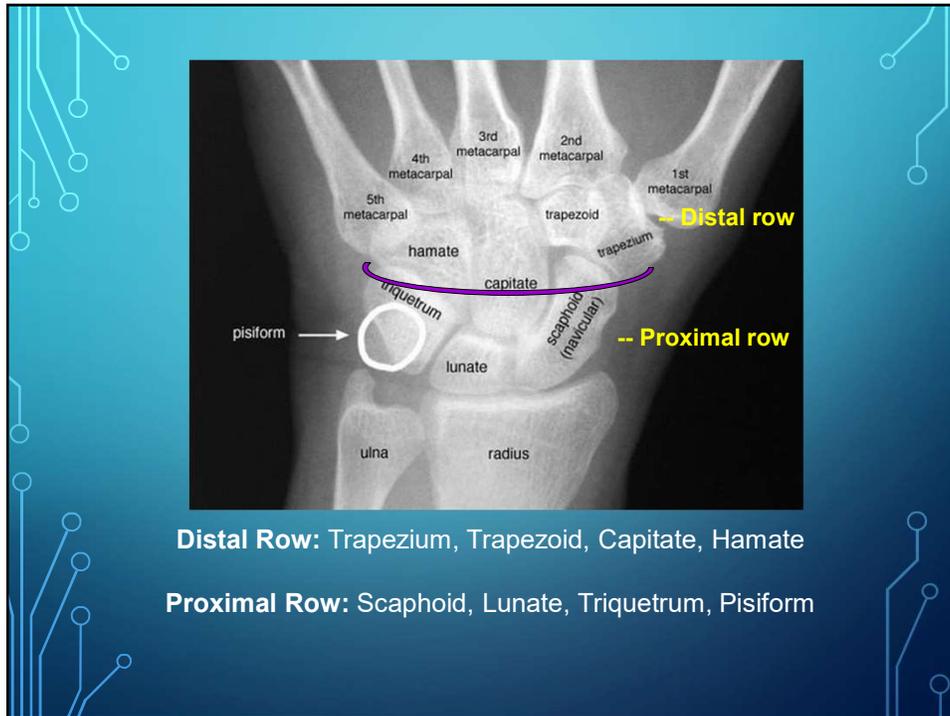


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# Wrist Anatomy



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### Mnemonics for Carpal Bones

Mnemonic	Preferred Term	Synonyms
Send Steve	Scaphoid	Navicular
Letter Left	Lunate	Semilunar
To The	Triquetrum	Triangular or cuneiform
Peter Party	Pisiform	
To To	Trapezium	Greater multangular
Tell'im (to) Take	Trapezoid	Lesser multangular
Come Carol	Capitate	Os magnum
Home Home	Hamate	Unciform

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## Unique Characteristics

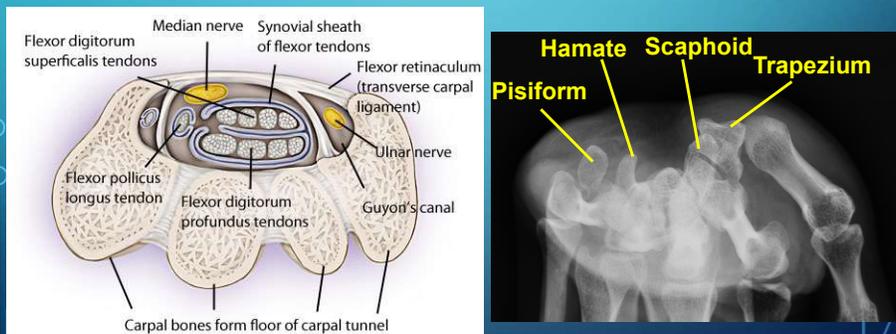
- ❖ Capitate – largest carpal
- ❖ Hamate – hook extends anteriorly (hamulus)
- ❖ Scaphoid/Navicular – most commonly fractured carpal
- ❖ Trapeziotrapezoid Joint Space – only seen on PA oblique



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## Carpal Sulcus

- ❖ Formed by the concave or palmar surface of the carpals
- ❖ Pathway for median nerve and flexor tendons



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# Wrist Articulations

JOINT	TISSUE	TYPE	MOVEMENT
<b>Carpometacarpal</b>			
• First digit	Synovial	Saddle (sellar)	Freely moveable
• 2 <sup>nd</sup> -5 <sup>th</sup> digits	Synovial	Gliding (plane)	Freely moveable
• Intercarpal	Synovial	Gliding (plane)	Freely moveable
• Radiocarpal	Synovial	Ellipsoidal (condyloid)	Freely moveable

- **Synovial**

- freely moveable and permit wide range of movements
- capsule surrounds joint – thick yellow fluid called synovial fluid fills joint for lubrication between bones

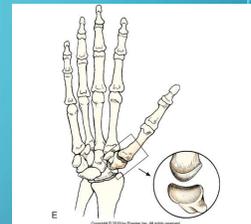
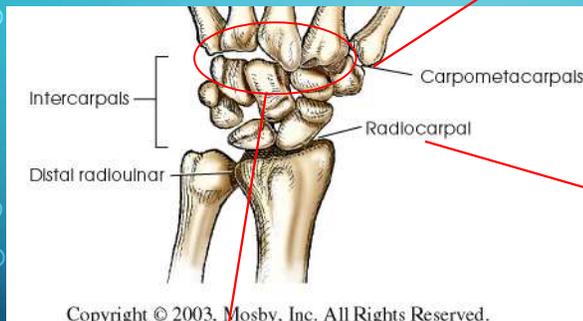
- **Movement:**

- saddle (sellar) – movement in 2 directions (biaxial) – articular surface saddle shaped and other bone curved to fit into saddle
- gliding (plane) – simplest – slight movement on one axis
- ellipsoid (condyloid) – primary - movement in 2 directions (biaxial) at right angles to each other – flex/ext and abduction/adduction

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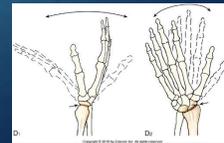
# Wrist Articulations

1<sup>st</sup> CMC joint = synovial saddle (sellar) joint



The radiocarpal joint consists of the radius, scaphoid, lunate & triquetrum. It is a synovial joint with ellipsoid movement

2<sup>nd</sup> – 5<sup>th</sup> CMC joints = synovial gliding (plane) joints

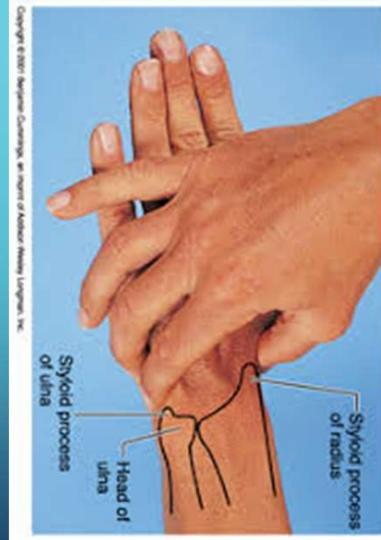


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## Landmarks

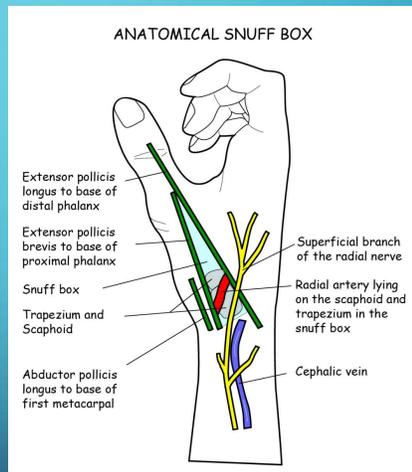
### Styloid Processes:

- Radius – lateral surface
- Ulna – posterior medial surface



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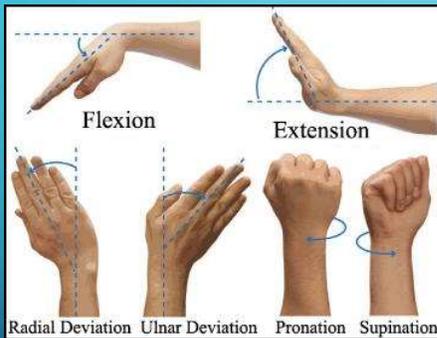
## Landmarks



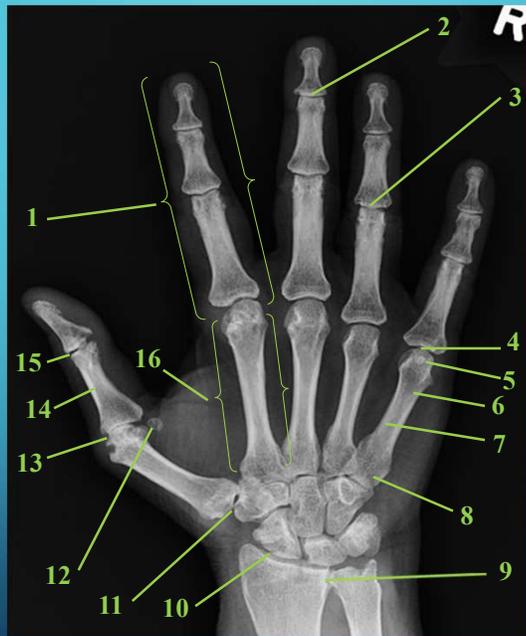
### Anatomic Snuff Box

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# Movements



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Questions?

