

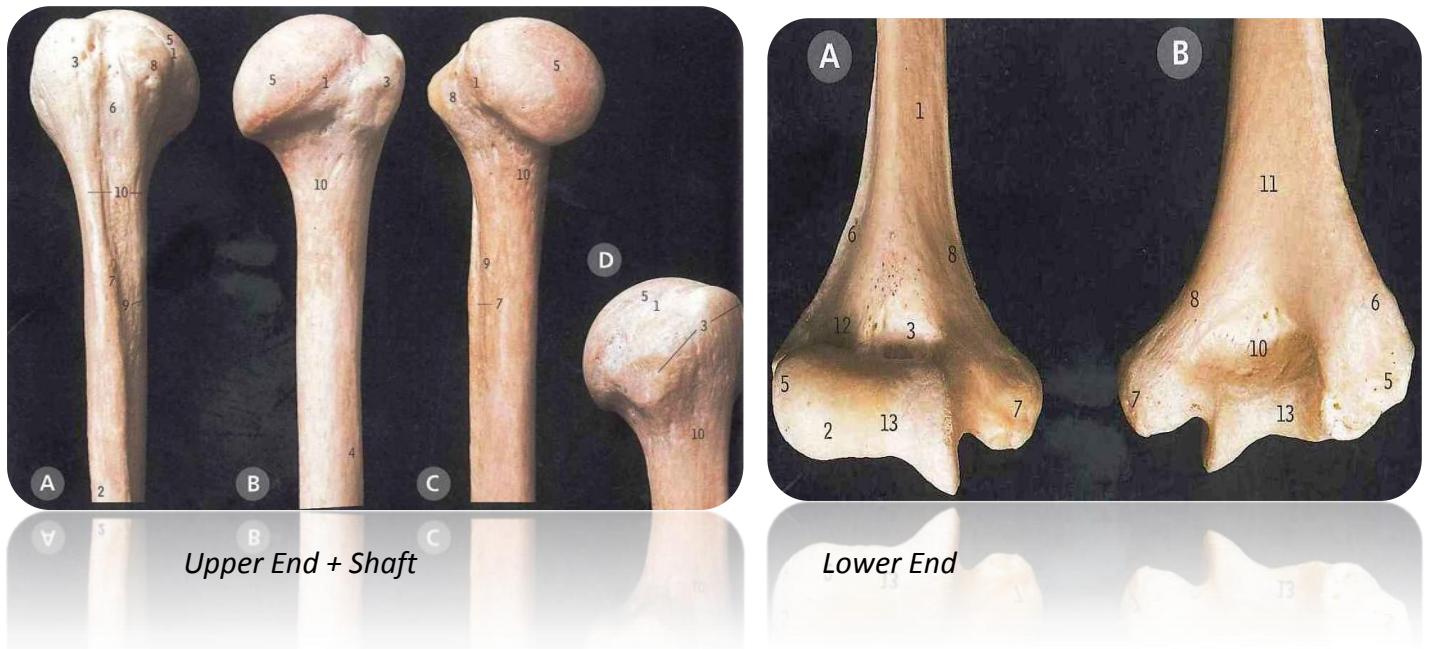
## Clavicle

<b>Features</b>	<ul style="list-style-type: none"> <li>▪ <i>Its medial 2/3 is convex forward.</i></li> <li>▪ <i>Its lateral 1/3 is concave forward.</i></li> <li>▪ <i>Its medial (sternal) end is rounded (5).</i></li> <li>▪ <i>Its lateral (acromial) end is flattened (1).</i></li> <li>▪ <b>2 Surfaces:</b> <ul style="list-style-type: none"> <li>• <i>Superior Surface</i></li> <li>• <i>Inferior Surface :</i> <ul style="list-style-type: none"> <li>- <i>Conoid tubercle (2)</i></li> <li>- <i>Trapezoid line(6)</i></li> </ul> </li> </ul> </li> </ul>
<b>Articulations and Joints</b>	<ul style="list-style-type: none"> <li>• <i>Sternoclavicular Joint</i> with the <i>Manubrium</i></li> <li>• <i>Costoclavicular Joint</i> with the <i>1<sup>st</sup> rib</i></li> <li>• <i>Acromioclavicular Joint</i> with the <i>Acromial end of the scapula.</i></li> </ul>



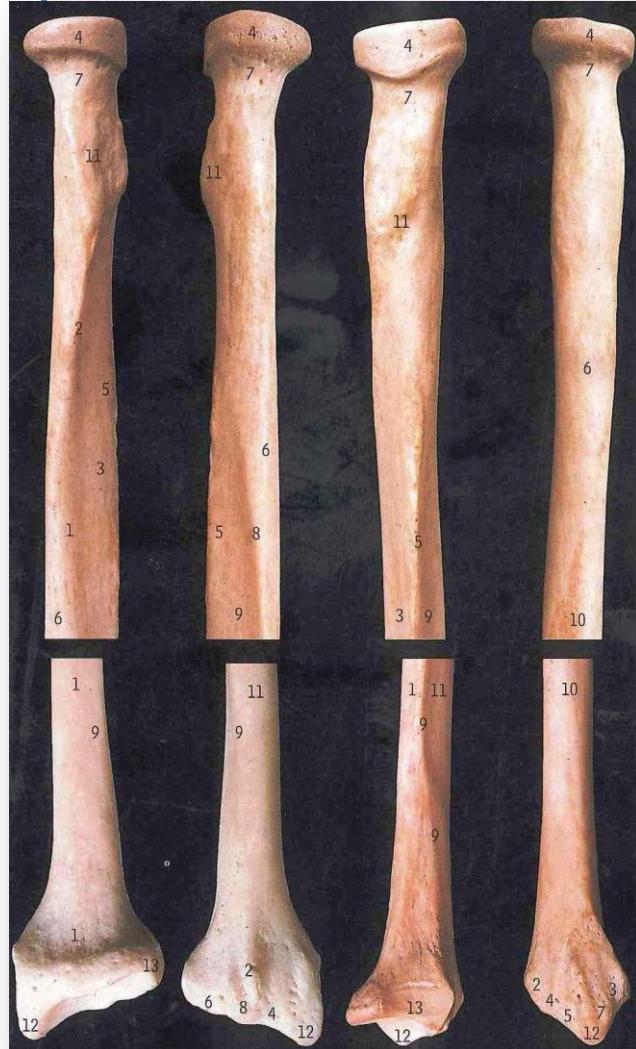
## Scapula

<b>Posterior Surface</b>	<ul style="list-style-type: none"> <li>▪ <b><i>Spine of the scapula</i></b>(10)  <i>lateral end of the spine</i> → <b>Acromion</b>(2)  <i>superolateral angle</i> → <b>Glenoid cavity</b>(7)</li> <li>▪ <b><i>The spine divides the posterior surface into:</i></b> <ul style="list-style-type: none"> <li>• <b><i>Supraspinous Fossa (above).</i></b>(15)</li> <li>• <b><i>Infraspinous Fossa (below).</i></b>(5)</li> </ul> </li> </ul>
<b>Anterior surface</b>	<ul style="list-style-type: none"> <li>• <b><i>Concave and forms the shallow Subscapular fossa</i></b>(11).</li> </ul>



## Humerus

<b>Upper End</b>	<ul style="list-style-type: none"> <li>• <b>Head(5)</b></li> <li>• <b>Anatomical neck</b> (Immediately below the head)(1)</li> <li>• <b>Greater(3)&amp; Lesser (8) tubercles</b>(Separated by Intertubercular groove) (6)</li> <li>• <b>Surgical neck</b>(connects upper end with the shaft)(10)</li> </ul>
<b>Shaft</b>	<ul style="list-style-type: none"> <li>• <b>Deltoid tuberosity(2)</b></li> <li>• <b>Spiral (Radial) groove</b>(Behind and below the tuberosity)</li> </ul>
<b>Lower End</b>	<ul style="list-style-type: none"> <li>• <b>Medial(7)&amp; Lateral(5) epicondyles</b></li> </ul>



### **Radius (LATERAL BONE)**

<b>Proximal End</b>	<ul style="list-style-type: none"> <li>• <b>Head(4)</b>(small &amp; circular, Its upper surface is concave)</li> <li>• <b>Neck(7)</b></li> <li>• <b>Radial (Bicipital) tuberosity(11)</b></li> </ul>
<b>Shaft</b>	<ul style="list-style-type: none"> <li>▪ <b>3 Surfaces :</b> <ul style="list-style-type: none"> <li>• <b>Anterior Surface(3)</b></li> <li>• <b>Lateral Surface(6)</b></li> <li>• <b>Posterior Surface(9)</b></li> </ul> </li> <li>▪ <b>Sharp medial interosseous border (5)</b></li> <li>▪ <b>Pronator tubercle: halfway down the lateral side</b></li> </ul>
<b>Distal End</b>	<ul style="list-style-type: none"> <li>• <b>Styloid Process</b>(projects laterally)(12)</li> <li>• <b>Ulnar Notch</b>(on the medial surface)(13)</li> <li>• <b>Dorsal tubercle</b>(On the posterior surface)(2)</li> </ul>



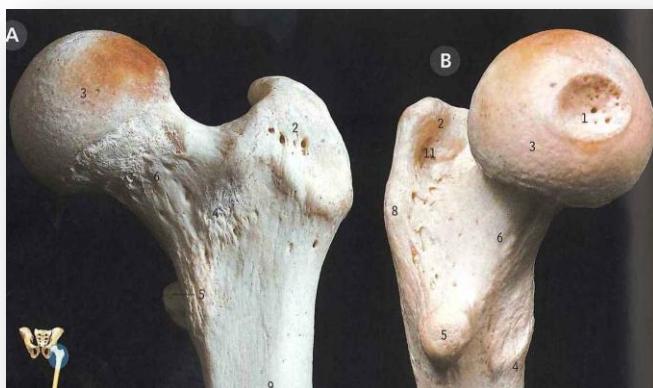
Proximal End



Distal End

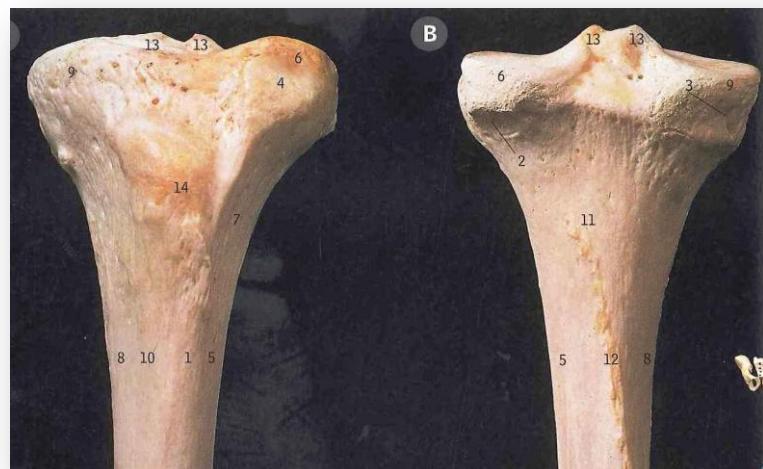
### **Ulna (MEDIAL BONE)**

Proximal End (Olecranon Process)	<ul style="list-style-type: none"> <li>• <i>Forms the prominence of the elbow.</i></li> <li>• <i>It has:</i></li> <li>▪ <i>Trochlear notch (anterior) (11).</i></li> <li>▪ <i>Triangular coronoid process (3).</i></li> <li>▪ <i>Radial notch (lateral) (9).</i></li> </ul>
Shaft	<ul style="list-style-type: none"> <li>▪ <i>3 Surfaces :</i> <ul style="list-style-type: none"> <li>• <i>Anterior Surfaces</i></li> <li>• <i>Medial Surfaces</i></li> <li>• <i>Posterior Surfaces</i></li> </ul> </li> <li>▪ <i>2 Borders :</i> <ul style="list-style-type: none"> <li>• <i>Sharp lateral interosseous border(4).</i></li> <li>• <i>Rounded subcutaneous posterior border.</i></li> </ul> </li> </ul>
Distal End	<ul style="list-style-type: none"> <li>• <i>Small rounded head(3)</i></li> <li>• <i>Styloid process (medial)(7)</i></li> <li>• <i>Radial notch (lateral)</i></li> </ul>

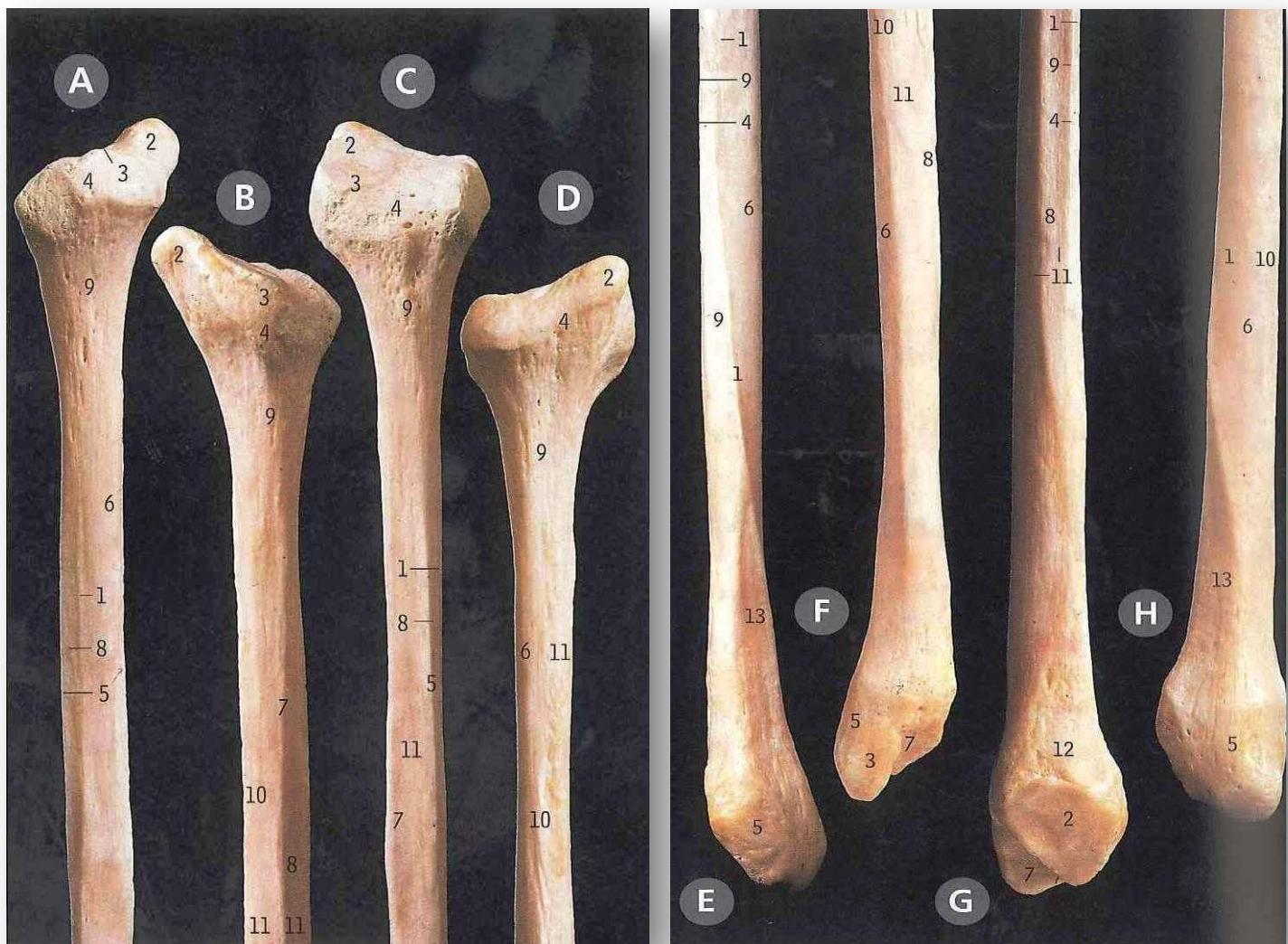


## Femur

<b>Upper end</b>	<ul style="list-style-type: none"> <li>• <b>Head(3)</b> has a depression in the center (<i>fovea capitis</i>) (1).</li> <li>• <b>Neck</b>(connects the head to the shaft) (6)</li> <li>• <b>Greater (2) and lesser (5) trochanters</b> (Anteriorly: connecting the two trochanters the <i>inter-trochanteric line</i>. (4) Posteriorly: the <i>inter-trochanteric crest</i> (8))</li> </ul>
<b>Shaft</b>	<ul style="list-style-type: none"> <li>▪ <b>3 Borders :</b> <ul style="list-style-type: none"> <li>• <b>Medial border</b></li> <li>• <b>Lateral border</b></li> </ul> </li> </ul> <p><b>Thick posterior border "linea aspera" (4)</b></p> <ul style="list-style-type: none"> <li>-the gluteal tuberosity (1)</li> <li>-The medial margin of linea aspera continues below as medial supracondylar ridge (10) while the lateral margin becomes continues below with the lateral supracondylar ridge(7) .</li> <li>-a triangular area ,the popliteal surface(12) at the lower end of the shaft</li> <li>•</li> </ul> <ul style="list-style-type: none"> <li>▪ <b>3 Surfaces :</b> <ul style="list-style-type: none"> <li>• <b>Medial Surface</b></li> <li>• <b>Lateral Surface</b></li> <li>• <b>Anterior Surface</b></li> </ul> </li> </ul>
<b>Lower end</b>	<ul style="list-style-type: none"> <li>• <b>Lateral (5) and Medial(8) condyles</b> (separated Anteriorly: by articular patellar surface (11) , and Posteriorly: by intercondylar notch) (4)</li> </ul>

**Tibia**

<b>Upper end</b>	<ul style="list-style-type: none"> <li>• <b>Medial condyle</b> (large and slightly oval) (9)</li> <li>• <b>Lateral condyle</b> (small and circular) (6)</li> <li>• <b>Intercondylar area</b> (between the two condyle, rough&amp; has intercondylartubercle) (13)</li> </ul>
<b>Shaft</b>	<ul style="list-style-type: none"> <li>▪ <b>3 Borders :</b> <ul style="list-style-type: none"> <li>• <b>Anterior border</b> (sharp and subcutaneous)</li> <li>• <b>Medial border</b></li> <li>• <b>Lateral 'interosseous' border</b></li> </ul> </li> <li>▪ <b>3 Surfaces :</b> <ul style="list-style-type: none"> <li>• <b>Medial Surface</b> (subcutaneous)</li> <li>• <b>Lateral Surface</b></li> <li>• <b>Posterior Surface</b></li> </ul> </li> <li>▪ <b>Tibial tuberosity</b> (14)</li> </ul>
<b>Lower end</b>	<ul style="list-style-type: none"> <li>• <b>Medial malleolus</b> (6)</li> <li>• <b>Fibular notch</b>(2)</li> </ul>



## Fibula

<b>Upper end</b>	<ul style="list-style-type: none"> <li>• Head (4)</li> <li>• Styloid process (2)</li> <li>• Neck (9)</li> </ul>
<b>Shaft</b>	<ul style="list-style-type: none"> <li>• 4 borders</li> <li>• 4 surfaces</li> </ul>
<b>Lower end</b>	<ul style="list-style-type: none"> <li>• <b>Lateral malleolus</b> (lateral surface : subcutaneous, medial surface : smooth) (5)</li> </ul>

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