

Ulna

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General Features

- **Medial bone** of the forearm (in anatomical position).
 - Longer than radius.
 - Bone of **stability** – forms major part of the **elbow joint**.
 - Does **not** directly take part in wrist joint (separated from carpals by articular disc).
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Parts of Ulna

1. Upper End

- **Olecranon process** ? large, curved projection, forms prominence of elbow, triceps insertion.
- **Coronoid process** ? anterior projection, brachialis insertion.
- **Trochlear notch** ? formed by olecranon and coronoid processes, articulates with trochlea of humerus.
- **Radial notch** ? on lateral side of coronoid, articulates with head of radius.
- **Ulnar tuberosity** ? below coronoid process, insertion of brachialis.

2. Shaft

- **Three borders**: anterior, posterior, interosseous.
- **Three surfaces**: anterior, posterior, medial.

- Interosseous border ? attachment of interosseous membrane.

3. Lower End

- **Head of ulna** ? rounded, articulates with ulnar notch of radius.
 - **Styloid process** ? posteromedial projection, palpable.
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Ossification of Ulna

- **Primary center:** shaft, appears in **8th week intrauterine life**.
 - **Secondary centers:**
 - Lower end ? appears at **5 years**, fuses at **18 years**.
 - Olecranon ? appears at **10 years**, fuses by **15–16 years**.
 - Total centers: **1 primary + 2 secondary = 3 centers**.
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Clinical Anatomy

- **Fractures**
 - **Olecranon fracture** ? common from direct trauma, may require surgical fixation.
 - **Monteggia fracture-dislocation** ? fracture of proximal third of ulna with dislocation of radial head.
 - **Night stick fracture** ? isolated fracture of ulna (defensive injury).
 - Shaft fractures usually associated with radius fractures.
 - **Dislocations**
 - Rare at elbow, but displacement of radial head may occur with ulnar fractures.
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- **Clinical landmarks**

- Olecranon and medial/lateral epicondyles form a straight line in extension and an equilateral triangle in flexion? important for diagnosing dislocations.
- Styloid process of ulna used in measuring ulnar variance in radiology.

- **Ossification centers** helpful in **forensic age determination**.