



Introduction to Anatomy

Practical Lab

1st year Medical Students

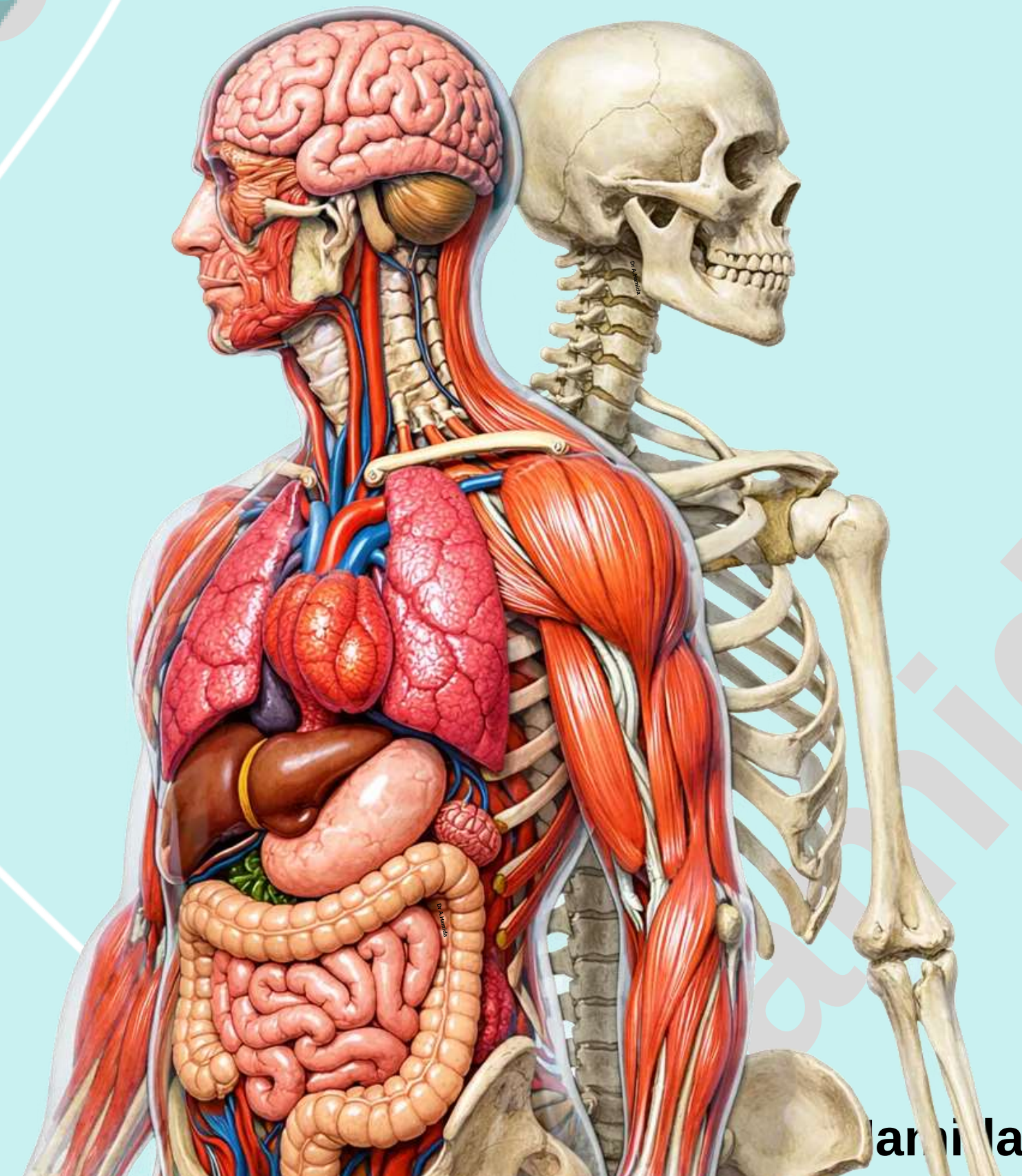
2025-2026
Second Semester

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Hamida

Practical Lab-3

Upper Limb Bones

- 1. Clavicle**
- 2. Scapula**
- 3. Humerus (proximal end and shaft)**

Check List: Upper Limb Bones

Practical Lab-3

1. Clavicle

- ✓ Identify the shape and anatomical location of the clavicle.
- ✓ Outline the main parts of the clavicle:
 - **two ends** (medial and lateral ends),
 - **shaft** (the medial two-thirds are convex anteriorly, the lateral one-third is concave anteriorly)
 - **two surfaces** (superior and inferior surfaces (subclavian groove)).

2. Scapula

- ✓ Identify the shape and anatomical location of the scapula
- ✓ Outline the major parts of the scapula:
 - **body** (two surfaces, three borders, and three angles) **and**
 - **three processes** (Spinous process, Acromion process, and Coracoid process).

3. Humerus (proximal end and shaft)

- ✓ Identify the shape and anatomical location of the humerus.
- ✓ Outline the major parts of the humerus:
 - **Proximal (upper) end** (head, Neck, Greater tubercle, Lesser tubercle, Bicipital Groove, and Surgical neck),
 - **Shaft** (Deltoid tuberosity and Radial groove)

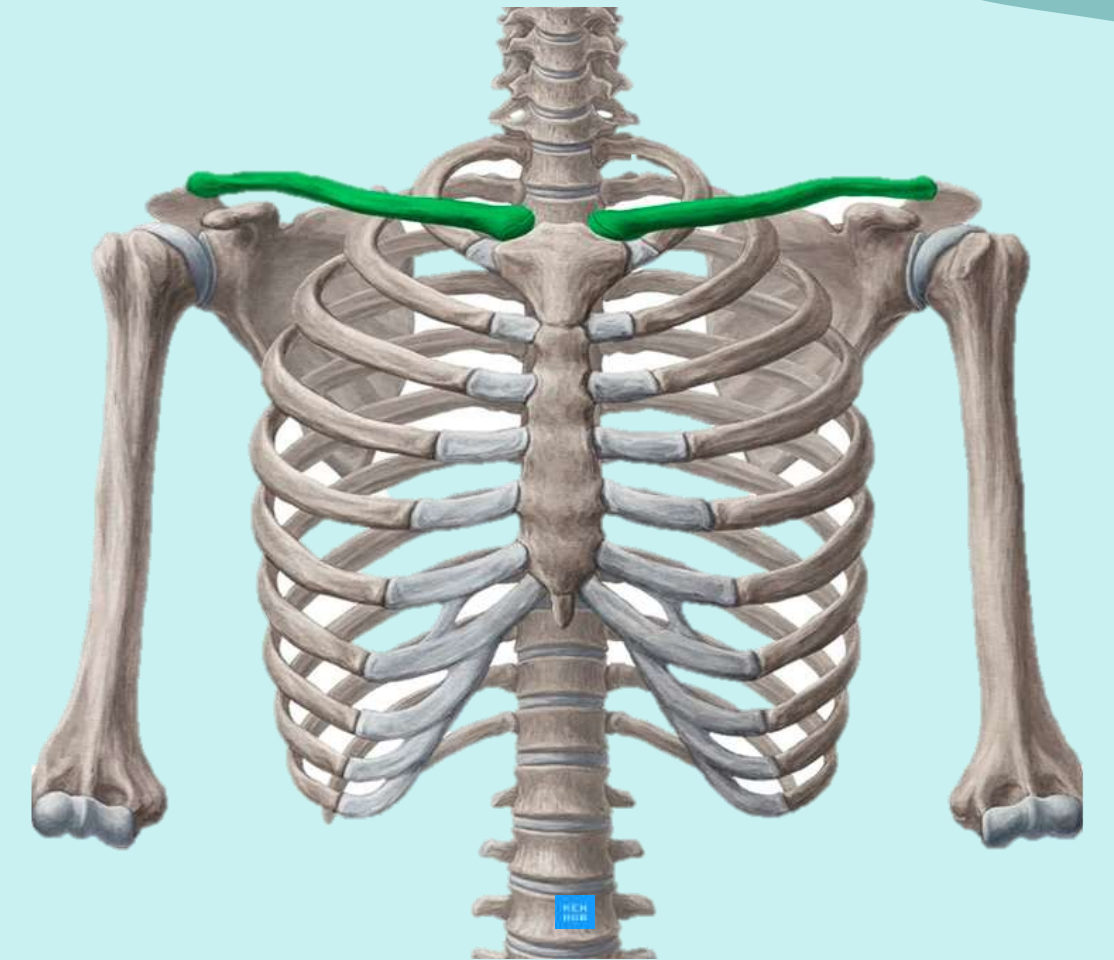
Check List:

1. Clavicle

- ✓ Identify the shape and anatomical location of the clavicle.
- ✓ Outline the main parts of the clavicle: two ends, shaft, and two surfaces.

1. Ends

- Identify the medial (sternal) end:
 - Rounded
 - Articulates with the manubrium of the sternum, forming the sternoclavicular joint (saddle joint).
- Identify the lateral (acromial) end:
 - Broad and flat
 - Articulates with the acromion of the scapula, forming the acromioclavicular joint (plane joint).



Superior view

Check List:

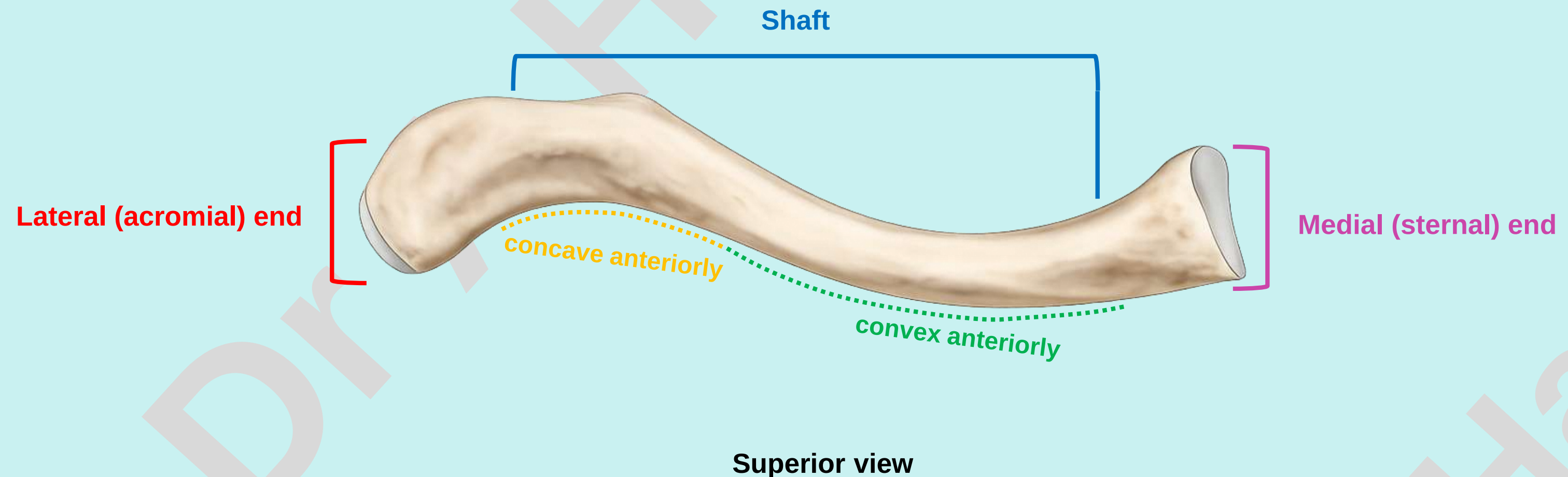
1. Clavicle

✓ Outline the main parts of the clavicle:

2. Shaft

• Describe the curvature of the shaft:

- The medial two-thirds are **convex anteriorly**.
- The lateral one-third is **concave anteriorly** (or convex posteriorly).



Check List:

Practical Lab-3

1. Clavicle

✓ Outline the main parts of the clavicle:

3. Surfaces

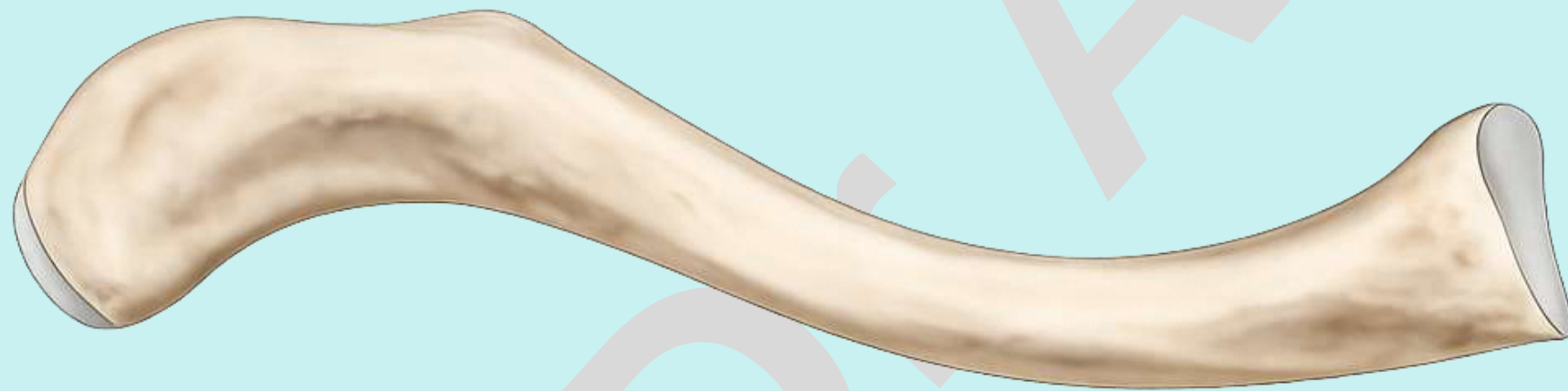
• Identify the superior surface:

- Smooth and subcutaneous

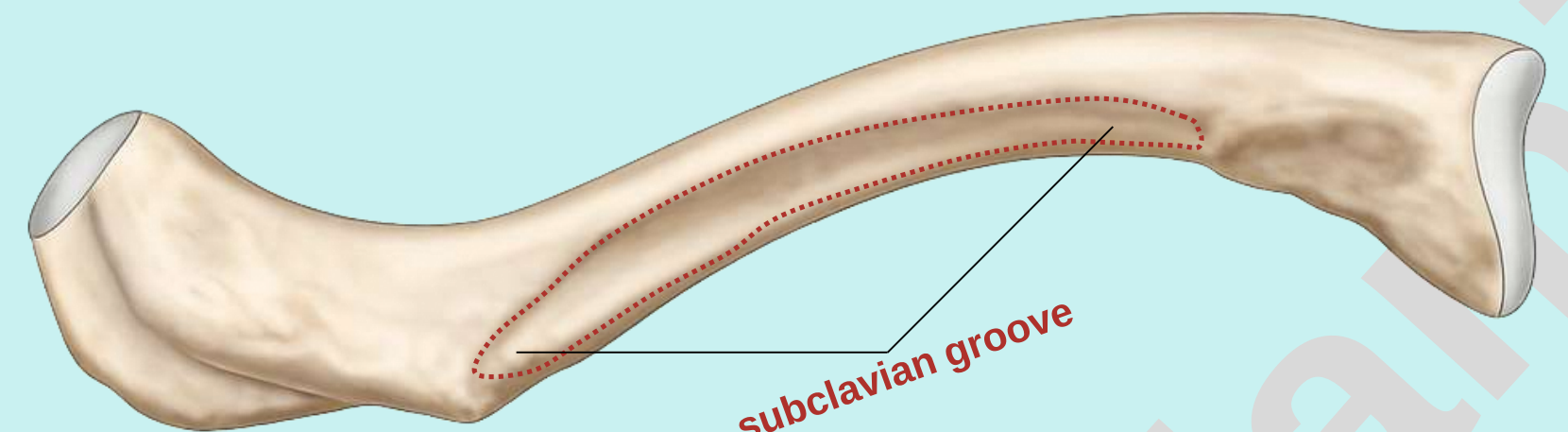
• Identify the inferior surface:

- Rough

- Contains a longitudinal groove in the middle third, known as the subclavian groove



Superior view



Inferior view

Check List:

Practical Lab-3

1. Clavicle

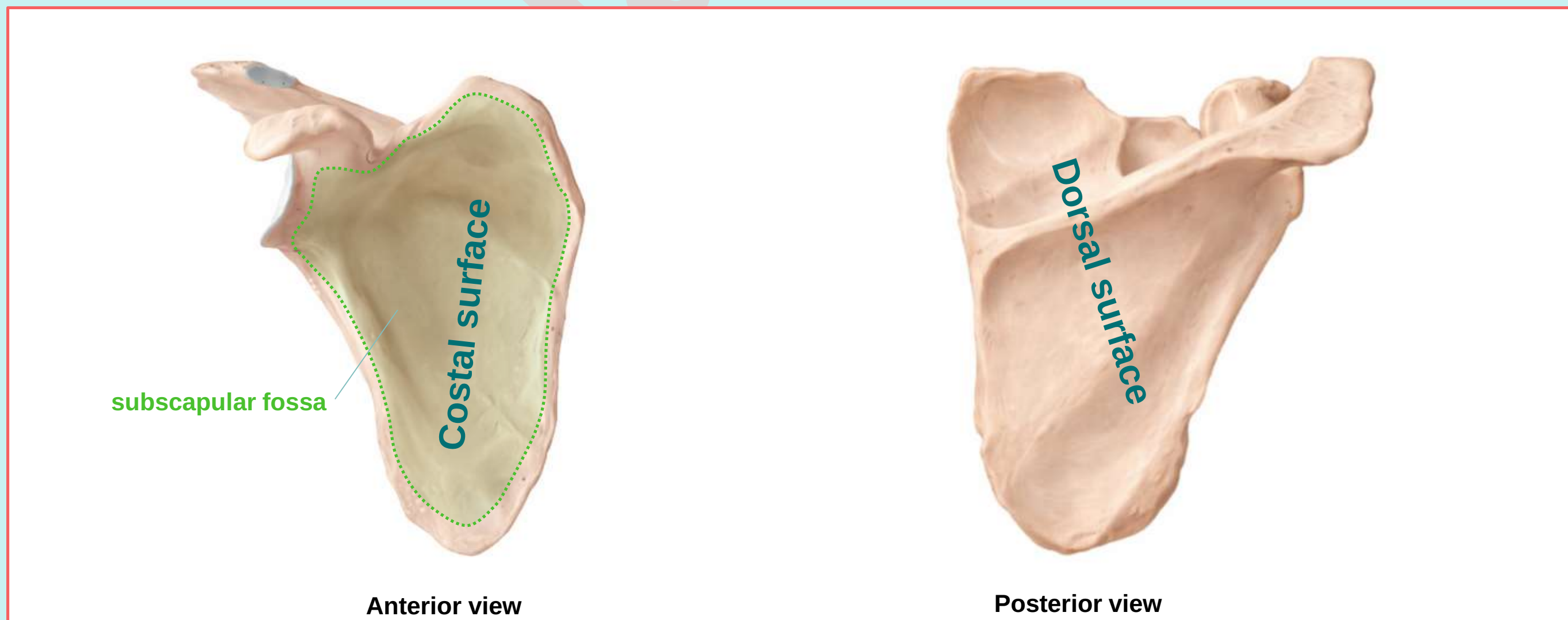
✓ **Determine the side and anatomical Position by:**

- 1. Holding the bone horizontally with the flattened acromial end laterally and the rounded sternal end medially.**
- 2. Ensuring the medial two-thirds are convex anteriorly and the lateral one-third is concave anteriorly.**
- 3. Confirming the subclavian groove faces inferiorly.**

Check List:

2. Scapula

- ✓ Identify the shape and anatomical location of the scapula
- ✓ Outline the major parts of the scapula: a body and three processes.
 1. **Body:** triangular, thin has two surfaces, three borders, and three angles:
 - Identify the two surfaces of the scapula:
 - Costal surface (anterior surface), It contains a large concave depression over most of its surface, known as the subscapular fossa.
 - Dorsal surface (posterior surface)



Check List:

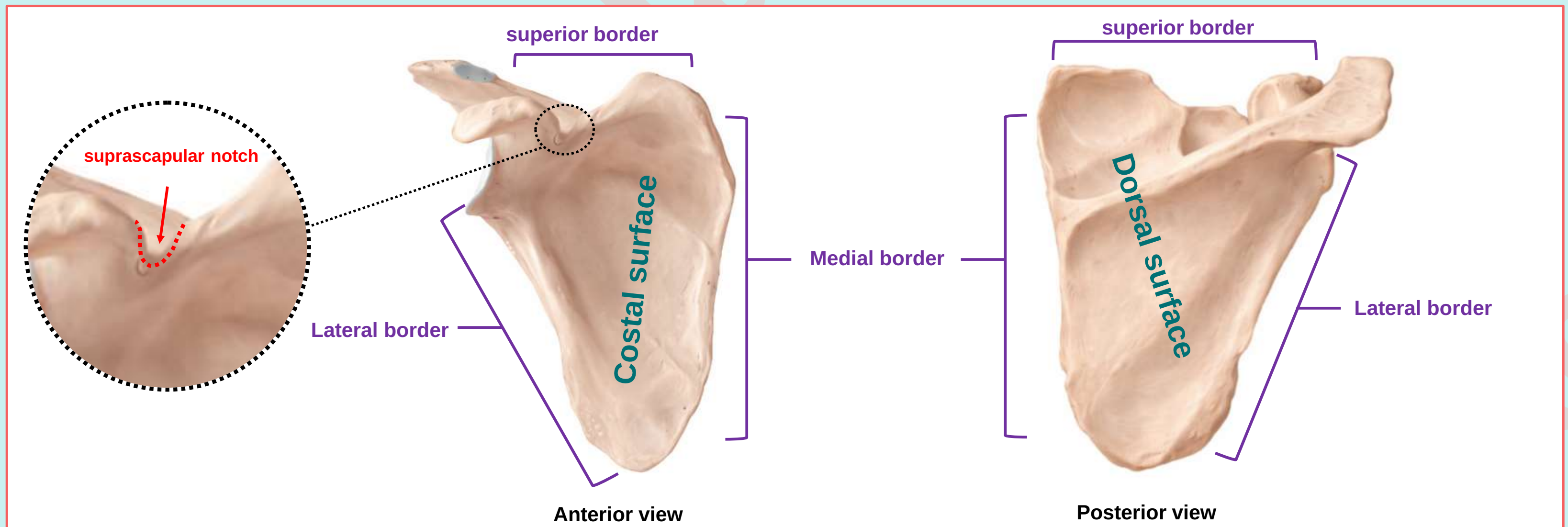
2. Scapula

✓ Outline the major parts of the scapula:

1. **Body:** triangular, thin has two surfaces, three borders, and three angles:

• Identify the three borders of the scapula:

- **Superior border:** contains the suprascapular notch, located near the root of the coracoid process.
- **Medial (vertebral) border**
- **Lateral (axillary) border**



Check List:

2. Scapula

✓ Outline the major parts of the scapula:

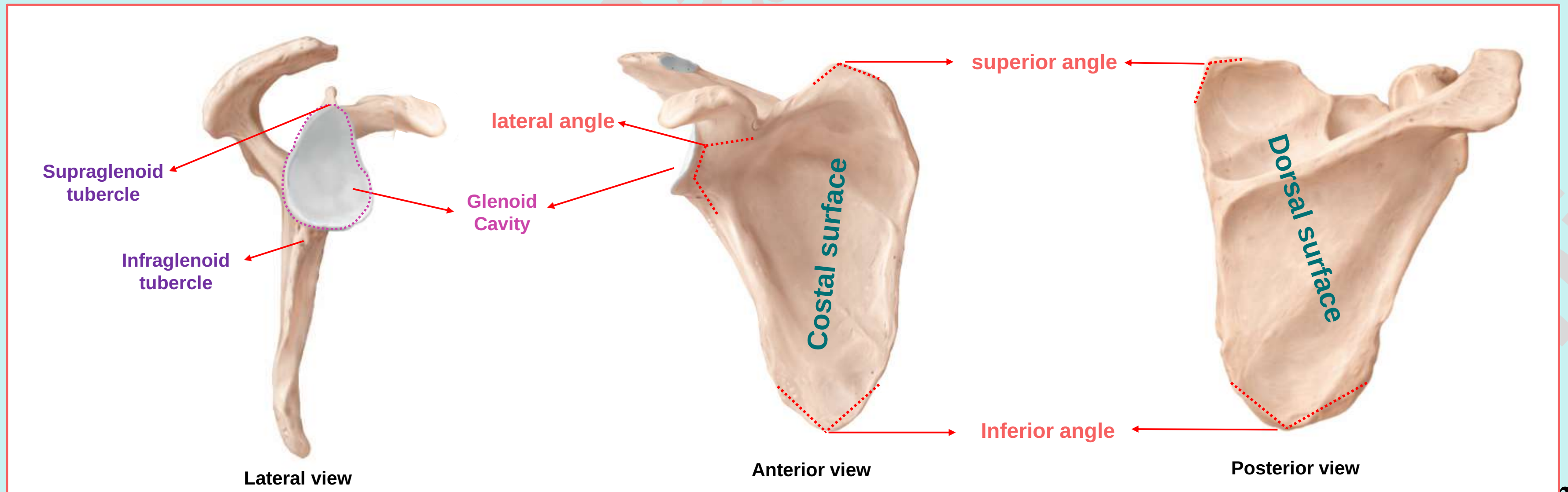
1. **Body:** triangular, thin has two surfaces, three borders, and three angles:

• Identify the three angles of the scapula:

- **Inferior angle.**
- **Superior angle.**
- **lateral angle:** is truncated and bears a pear-shaped articular cavity called the **glenoid cavity**

Glenoid cavity possesses two tubercles:

1. Supraglenoid tubercle in the upper margin
2. Infraglenoid tubercle in the lower margin



Check List:

2. Scapula

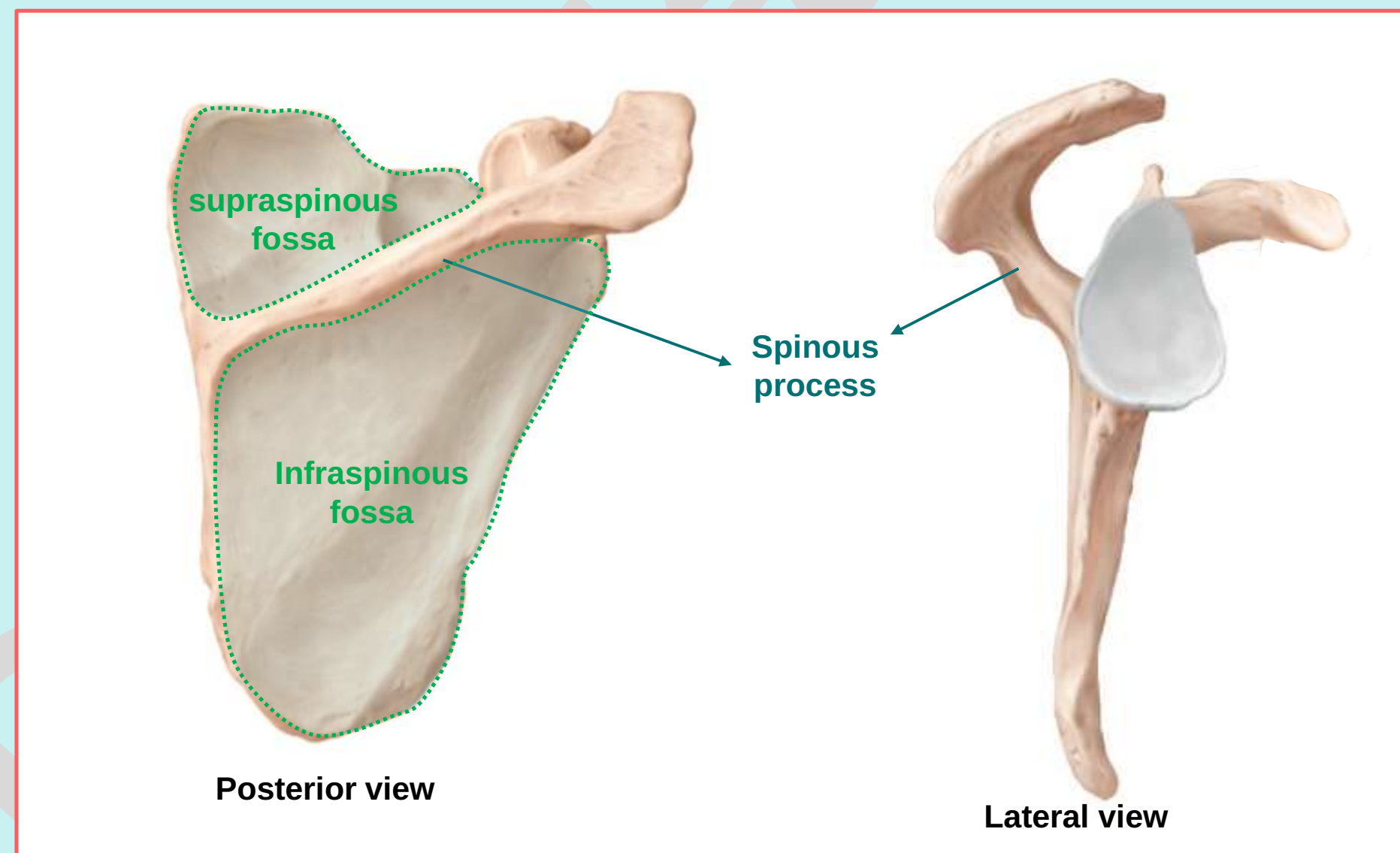
✓ Outline the major parts of the scapula:

2. **Processes:** these are **Spinous process**, **Acromion process**, and **Coracoid process** :

- Spinous process:

- It is a shelf-like bony projection on the dorsal aspect of the body.

- Divides the dorsal surface into: Supraspinous fossa and Infraspinous fossa



Check List:

2. Scapula

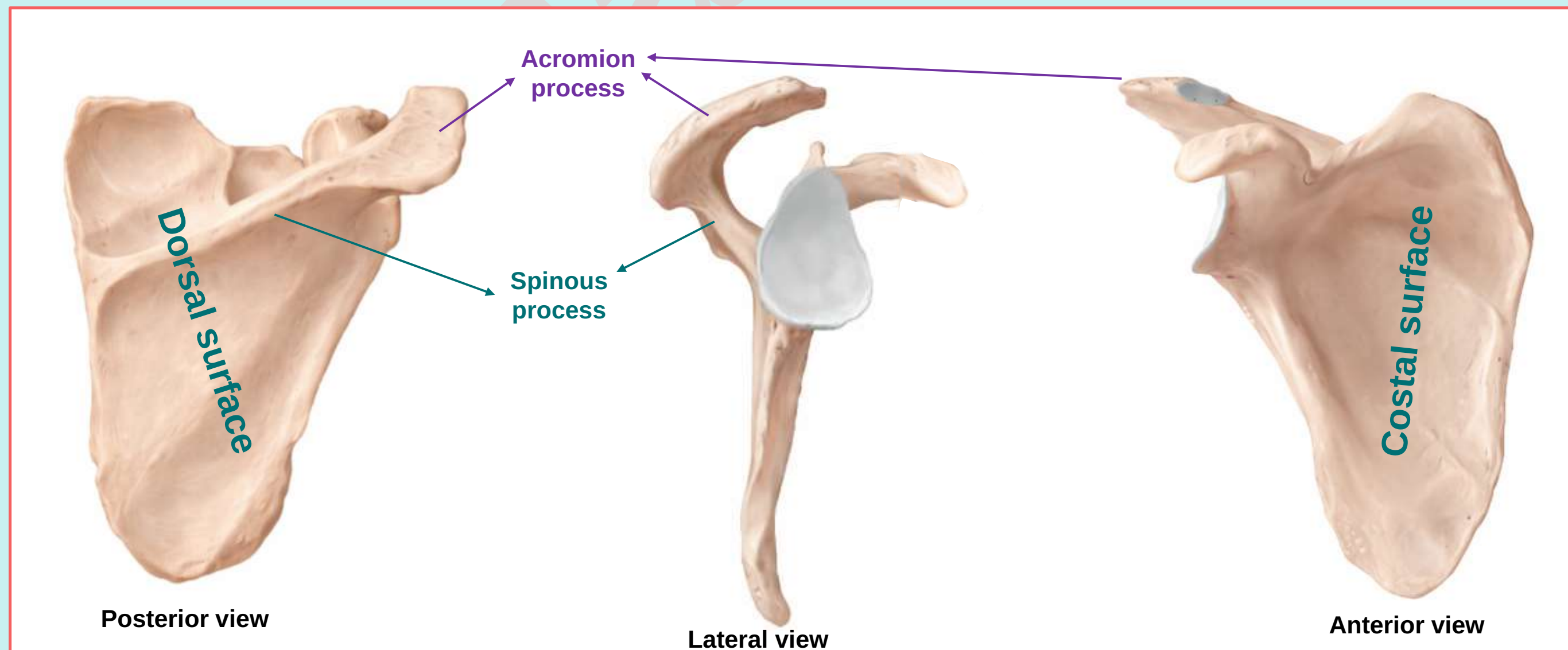
✓ Outline the major parts of the scapula:

2. **Processes:** these are **Spinous process**, **Acromion process**, and **Coracoid process** :

- Acromion process:

- Projects laterally and anteriorly from the lateral end of the spine. Overhangs the glenoid cavity.

- Articulates with the acromial end of the clavicle, forming the acromioclavicular joint (plane joint).



Check List:

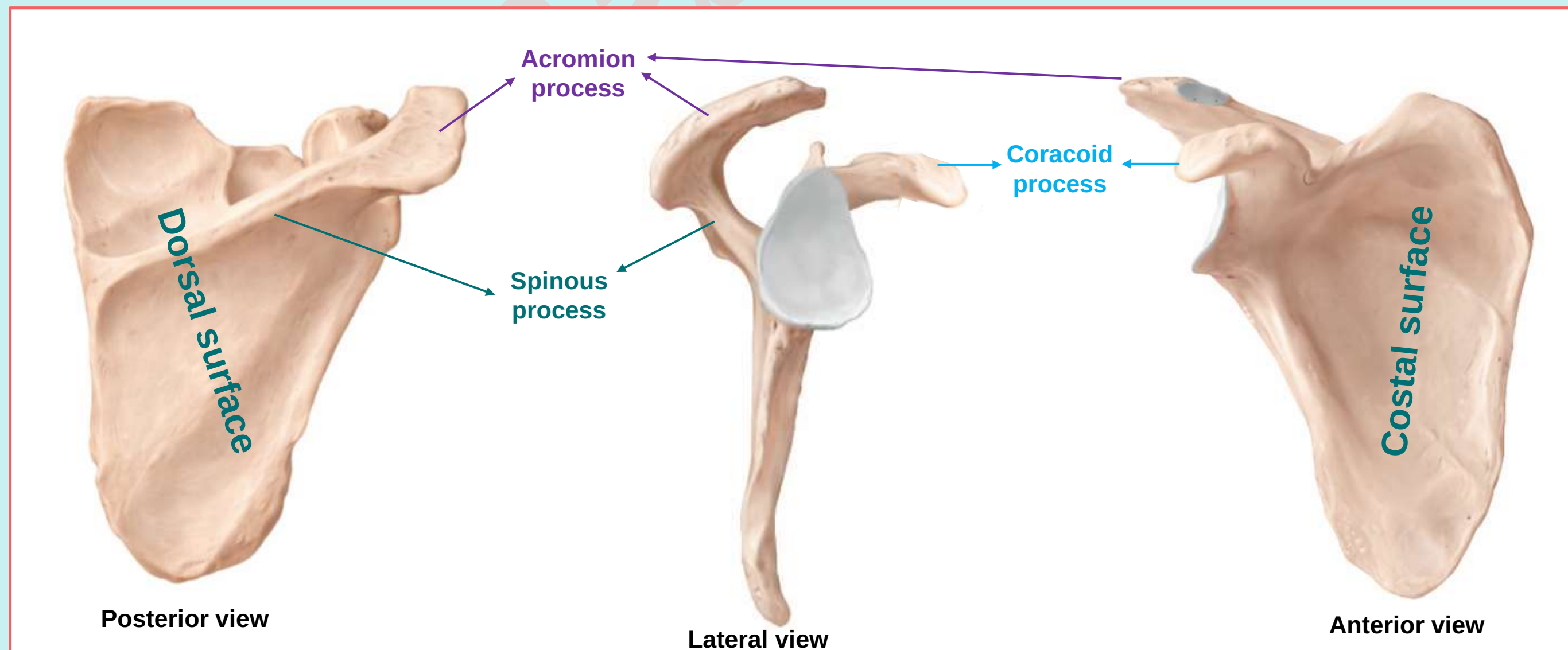
2. Scapula

✓ Outline the major parts of the scapula:

2. **Processes:** these are **Spinous process**, **Acromion process**, and **Coracoid process** :

- Coracoid process:

- A hook-like projection resembling a bird's beak.
- Arises from the superior border of the scapula. Projects anteriorly and slightly laterally



Check List:

Practical Lab-3

2. Scapula

✓ **Determine the side and anatomical Position by holding the scapula in such a way that:**

- 1. The glenoid cavity faces laterally.**
- 2. The coracoid process lies superiorly.**
- 3. The Spinous process lies posteriorly**

Check List:

Practical Lab-3

3. Humerus (proximal end and shaft)

- ✓ Identify the shape and anatomical location of the humerus.
- ✓ Outline the major parts of the humerus: Proximal (upper) end, Shaft, and Distal (lower) end

1. Proximal (Upper) End: Identify the following features of the proximal end:

- Head:
 - Rounded structure that articulates with the glenoid cavity of the scapula.
 - Forms the shoulder (glenohumeral) joint (ball-and-socket joint).



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Check List:

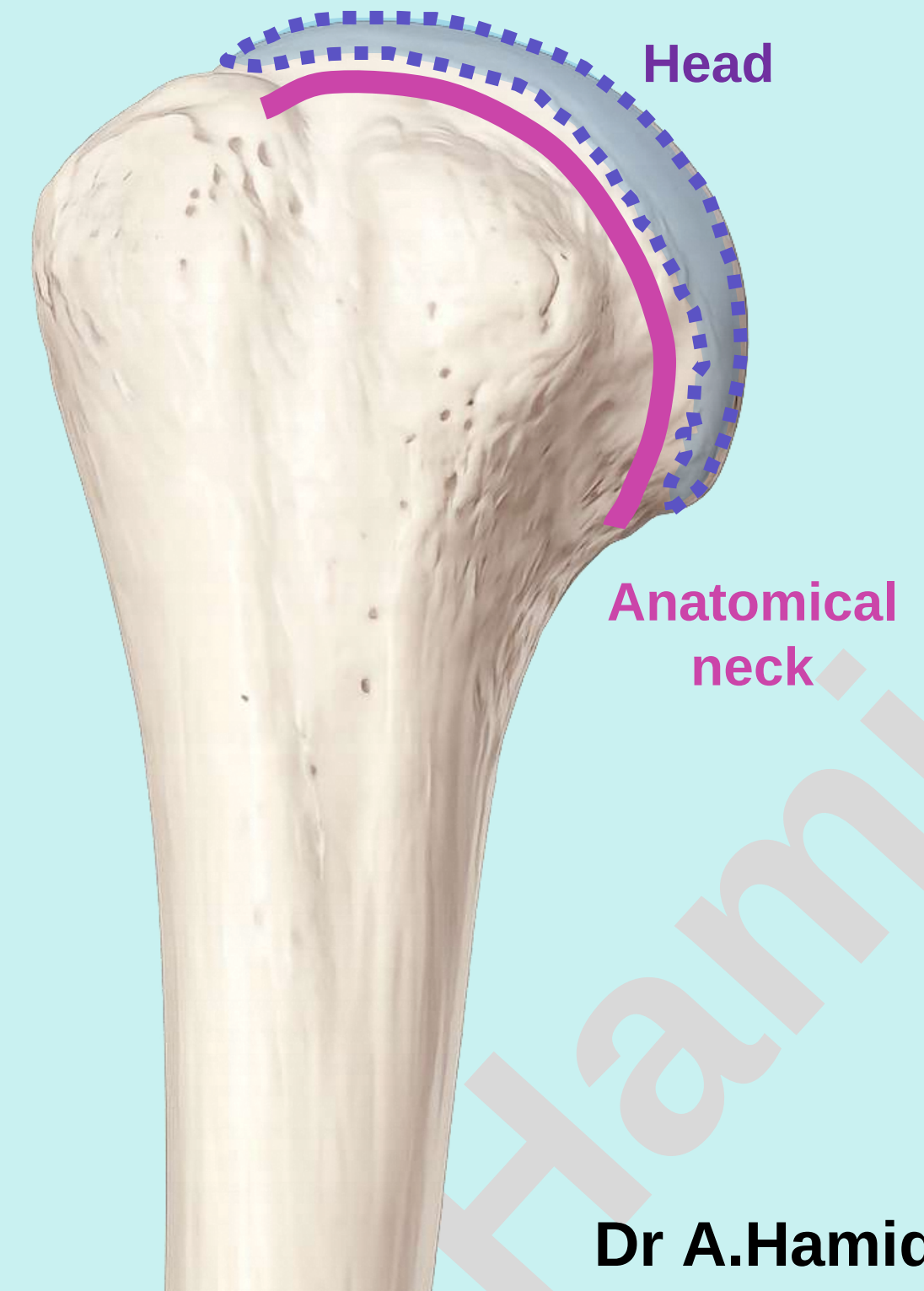
Practical Lab-3

3. Humerus (proximal end and shaft)

✓ Outline the major parts of the humerus:

1. **Proximal (Upper) End:** Identify the following features of the proximal end:

- Anatomical Neck:
 - constriction at the margins of the rounded head



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Check List:

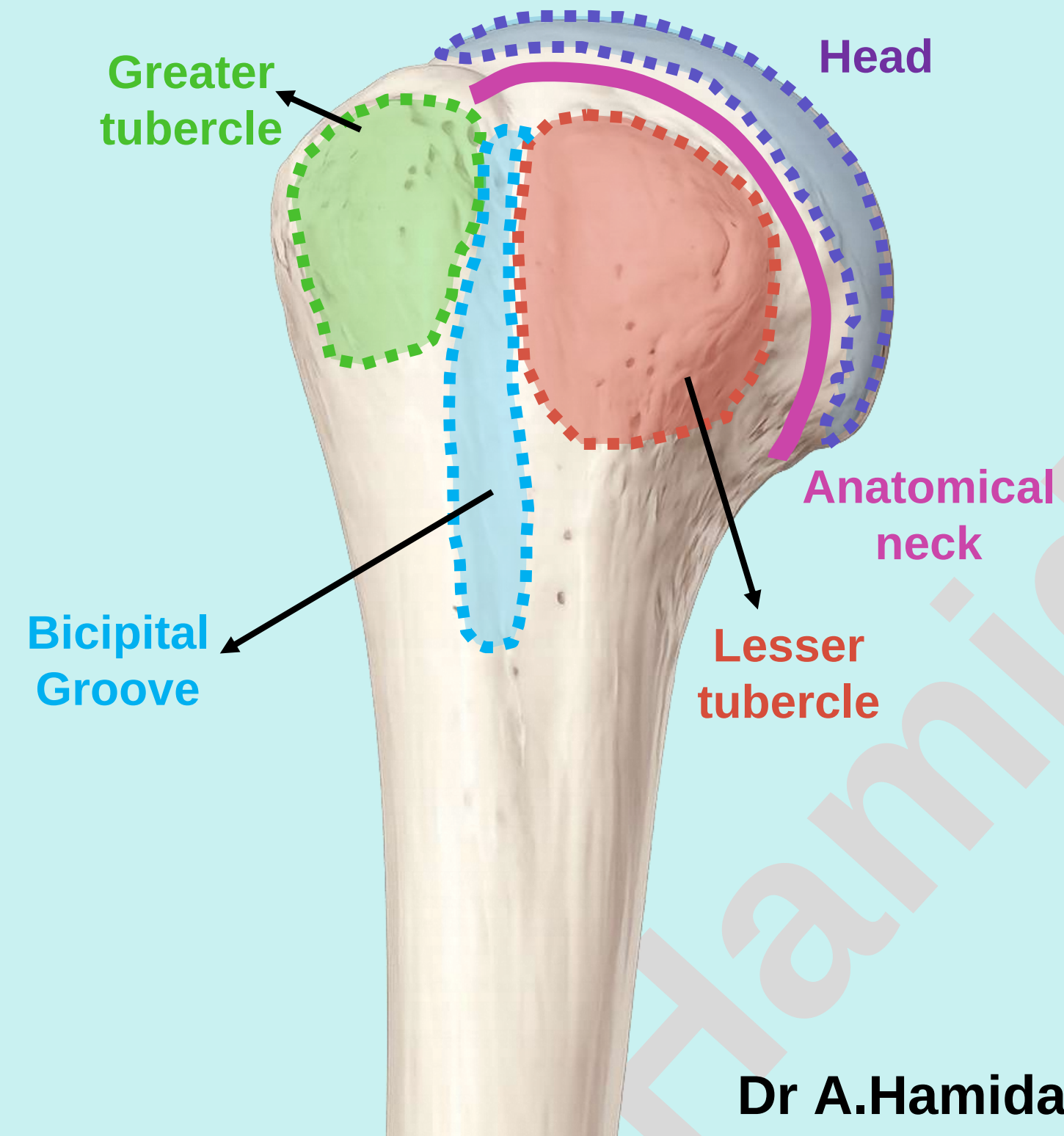
Practical Lab-3

3. Humerus (proximal end and shaft)

✓ Outline the major parts of the humerus:

1. **Proximal (Upper) End:** Identify the following features of the proximal end:

- **Greater tubercle:**
 - A large lateral projection distal to the anatomical neck.
 - Forms the most lateral part of the proximal humerus
- **Lesser tubercle:**
 - A smaller projection located anteriorly.
 - Situated medial to the **intertubercular sulcus**
- **Intertubercular Sulcus (Bicipital Groove):**
 - A groove located between the **greater** and **lesser** tubercles.



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Check List:

3. Humerus (proximal end and shaft)

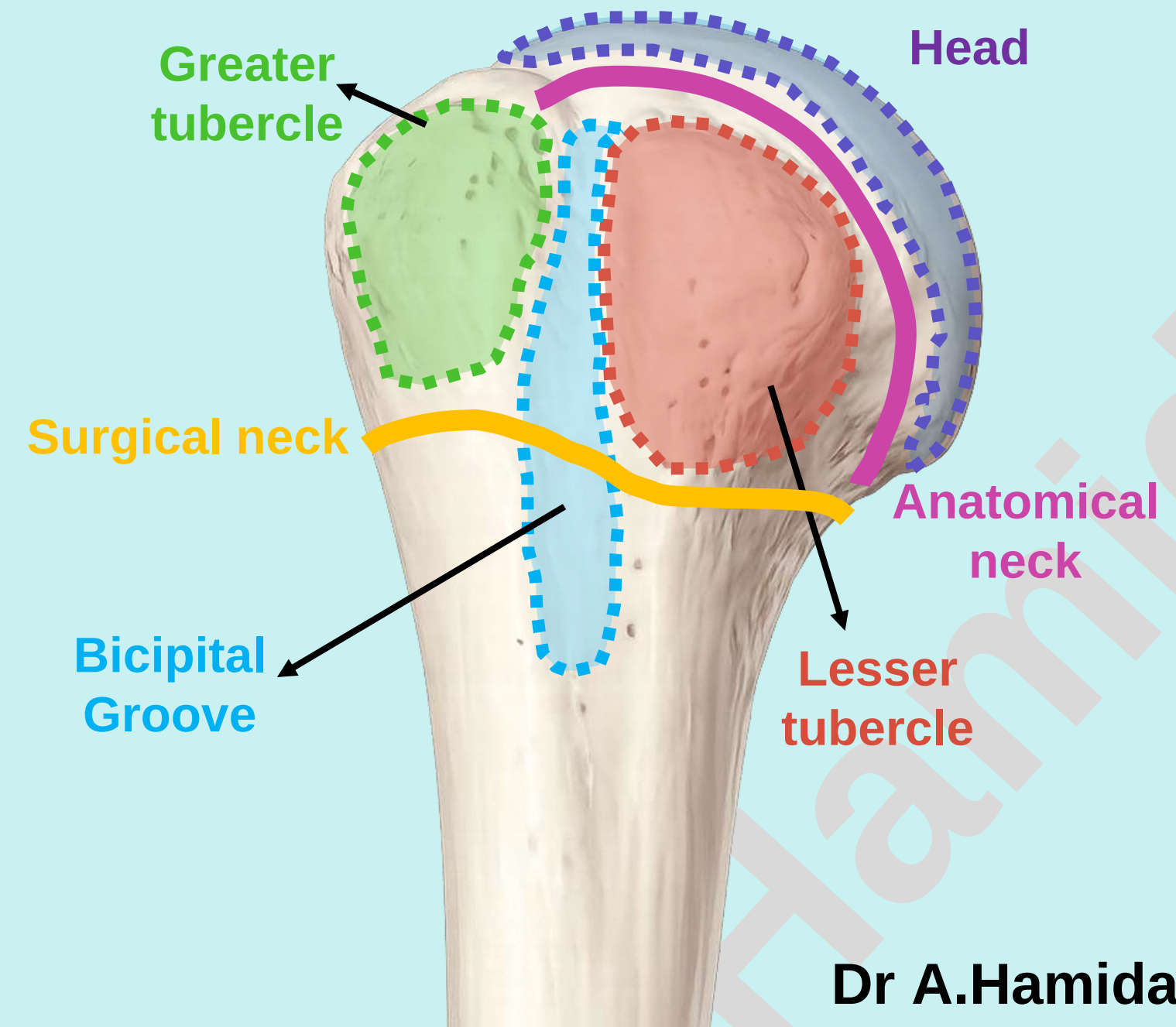
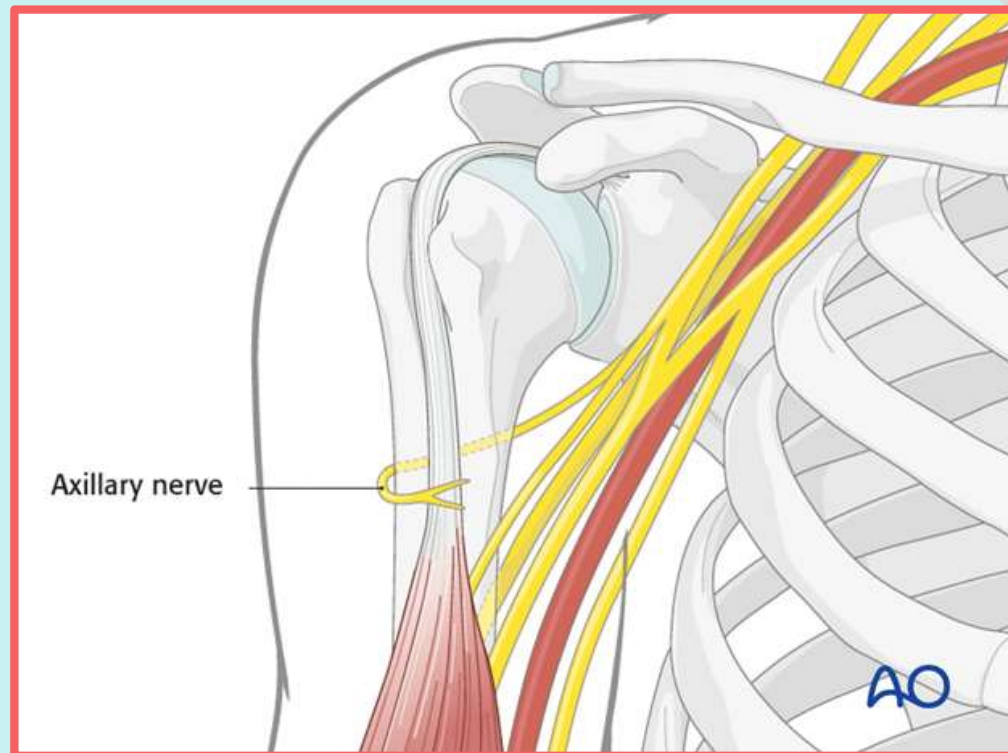
✓ Outline the major parts of the humerus:

1. **Proximal (Upper) End:** Identify the following features of the proximal end:

- **Surgical neck**

- A narrow region distal to the tubercles where the proximal end meets the shaft.
- It is so named because fractures often occur here.

- **The axillary nerve** pass around the surgical neck and may be injured in fractures at this site.



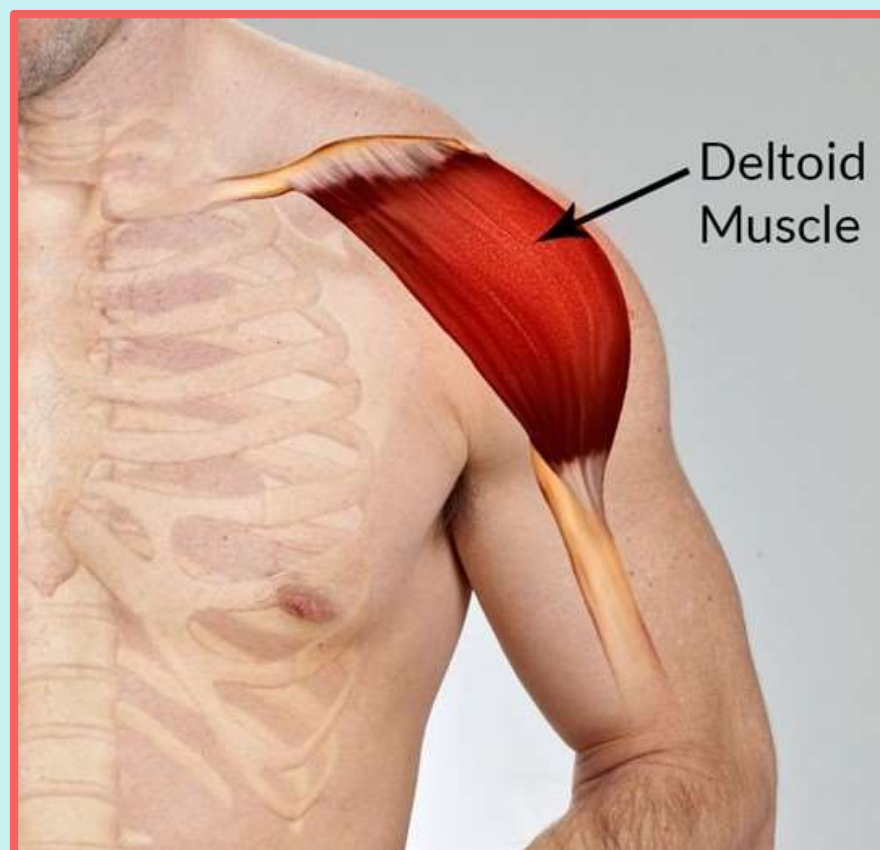
Check List:

3. Humerus (proximal end and shaft)

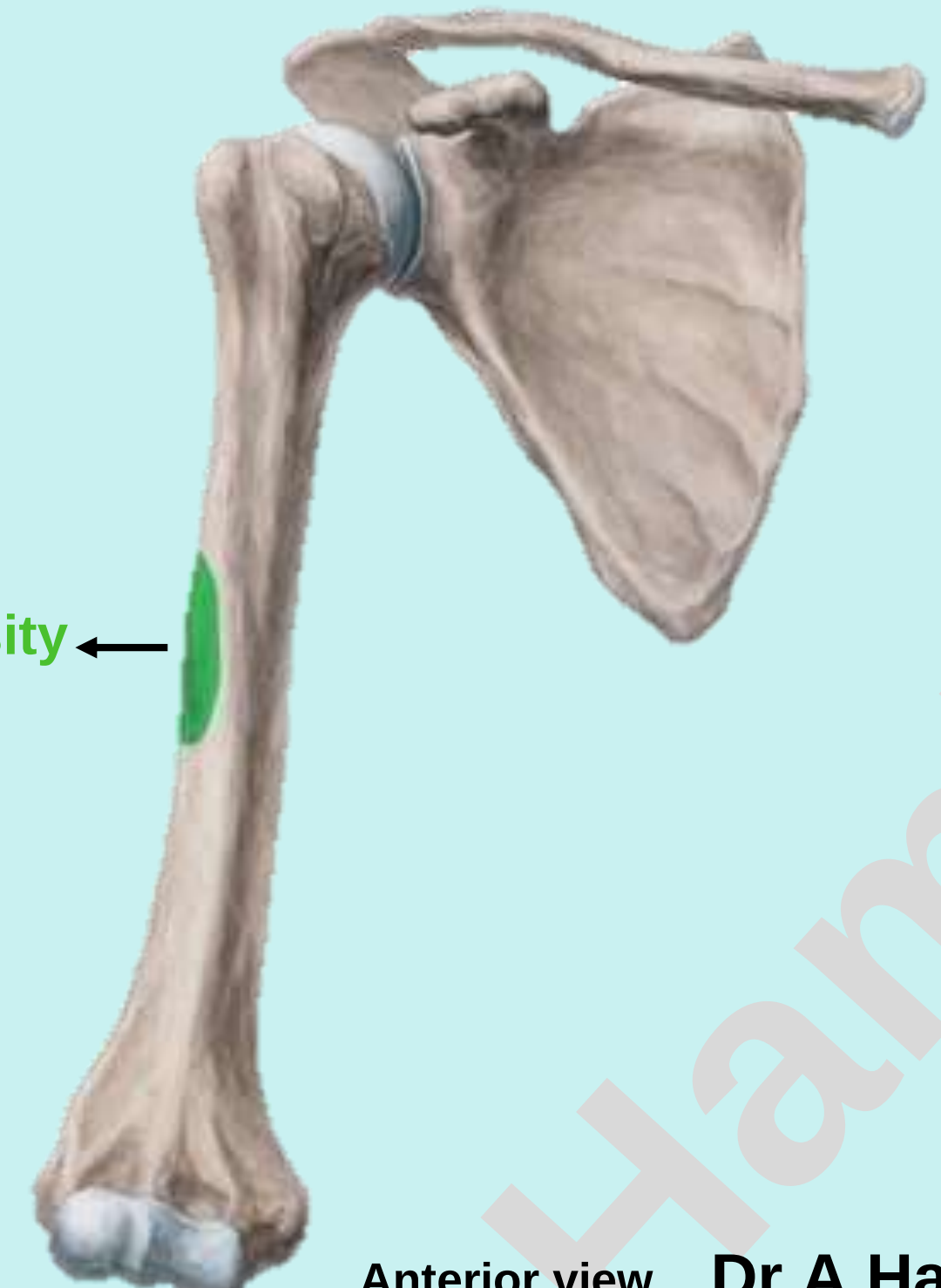
✓ Outline the major parts of the humerus:

2. Shaft: Identify the following features of the shaft:

- Deltoid tuberosity
 - Located on the lateral surface of the shaft, slightly above the midpoint.
 - Appears as a V-shaped roughened area.
 - Provides insertion for the deltoid muscle.



Deltoid tuberosity ←



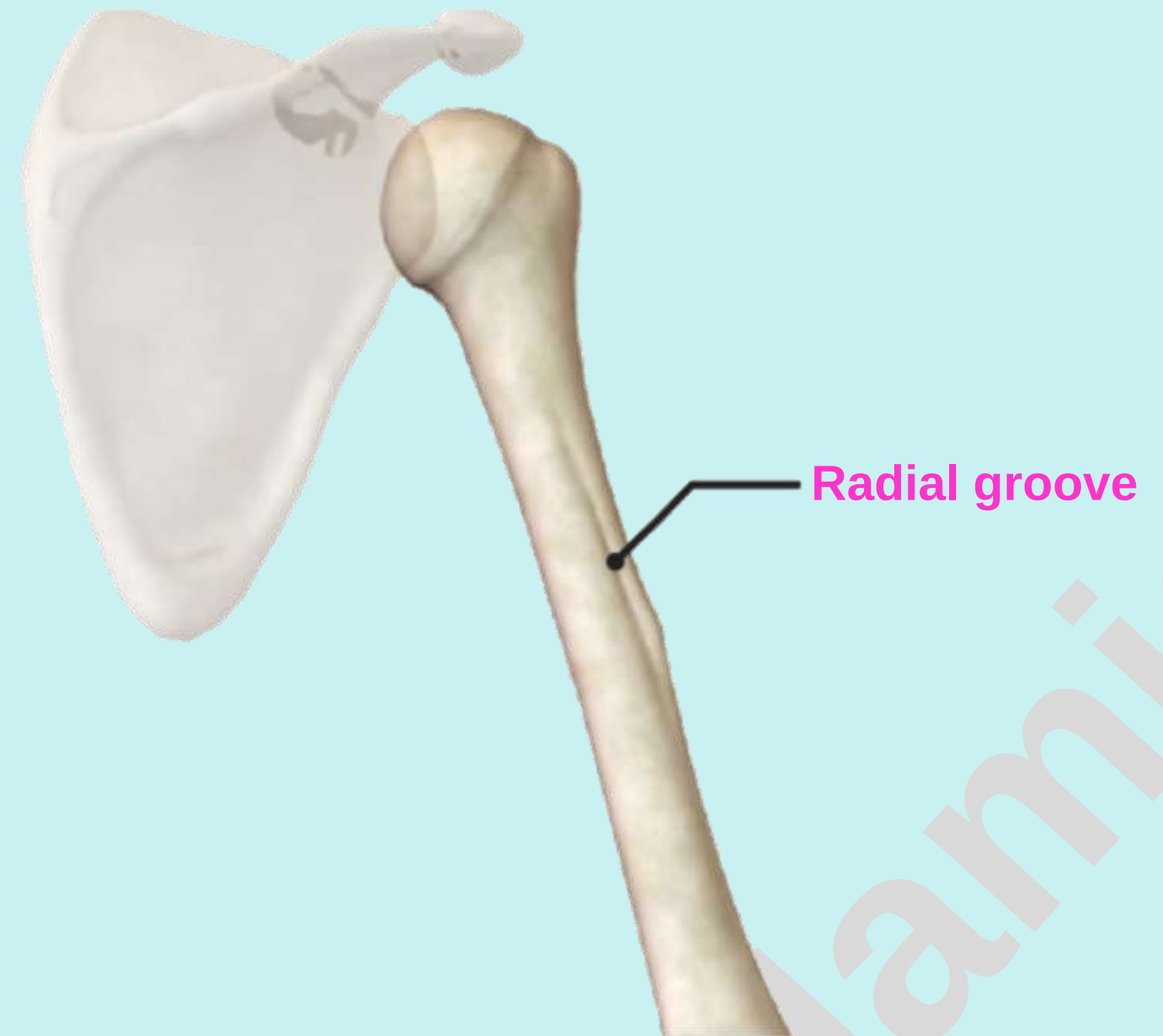
Check List:

3. Humerus (proximal end and shaft)

✓ Outline the major parts of the humerus:

2. Shaft: Identify the following features of the shaft:

- Radial groove (spiral groove)
 - Located on the posterior surface of the humerus.
 - Runs obliquely across the shaft.
 - Transmits the radial nerve.



Posterior view