🔥 ATTACHMENTS OF SCAPULA

🔹 Classification

Attachments of scapula are divided into:

1. Muscular attachments 💪
2. Ligamentous attachments 🔗
3. Capsular attachments 🩺

🔸 MUSCULAR ATTACHMENTS

🔹 Organized by Surface

- Costal surface (anterior)
- Dorsal surface (posterior)

🔹 COSTAL SURFACE (Anterior Surface)

👉 Faces ribs → called subscapular fossa

📌 Key Attachments

Structure	Muscle	Details
Subscapular fossa (medial 2/3)	Subscapularis	Powerful medial rotator (rotator cuff)
Medial border (costal surface)	Serratus anterior	Holds scapula against thoracic wall
Upper border (near suprascapular notch)	Omohyoid (inferior belly)	Depresses hyoid

Concept 💡

👉 Costal surface muscles mainly:

- Stabilize scapula
- Control its movement on thoracic wall

🩺 Clinical Insight:

- Weak serratus anterior → winged scapula 🪽

🔹 DORSAL SURFACE (Posterior Surface)

👉 Divided by spine of scapula into:

- Supraspinous fossa
- Infraspinous fossa

🔹 Key Muscle Attachments ⭐

Region	Muscle	Attachment
Supraspinous fossa (medial 2/3)	Supraspinatus	Initiates abduction (0–15°)
Infraspinous fossa (medial 2/3)	Infraspinatus	Lateral rotation
Lateral border (upper 2/3)	Teres minor	Lateral rotation
Lateral border (lower 1/3)	Teres major	Medial rotation & adduction
Medial border (upper part)	Levator scapulae	Elevates scapula
Medial border (root of spine)	Rhomboid minor	Retracts scapula

Medial border (lower part)	Rhomboid major	Retracts & rotates scapula

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🔹 Functional Grouping 💡

🔸 Rotator Cuff Muscles:

- Supraspinatus
- Infraspinatus
- Teres minor
- (Subscapularis – from costal surface)

👉 Stabilize shoulder joint 🩺

🔸 Scapular Stabilizers:

- Serratus anterior

- Rhomboids
- Levator scapulae

👉 Maintain posture & positioning

🔄 FLOWCHART: SCAPULAR MOVEMENTS

Elevation → Levator scapulae

⬇️

Retraction → Rhomboids

⬇️

Protraction → Serratus anterior

⬇️

Rotation → Serratus anterior + Trapezius

🔸 LIGAMENTOUS ATTACHMENTS 🔗

🔹 Important Ligaments of Scapula

Ligament	Attachment	Function
Coracoacromial ligament	Coracoid → Acromion	Forms arch over shoulder
Coracoclavicular ligament	Coracoid → Clavicle	Stabilizes clavicle
Superior transverse scapular ligament	Over suprascapular notch	Converts notch → foramen

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🩺 Clinical Insight:

- Suprascapular nerve passes under ligament

  👉 Compression → supraspinatus weakness

🔸 CAPSULAR ATTACHMENTS 🩺

🔹 Shoulder Joint Capsule

- Attached around:
  - Margin of glenoid cavity
  - Includes supraglenoid & infraglenoid tubercles

🔹 Important Points 💡

- Capsule is:
  - Loose inferiorly → allows wide movement
  - Reinforced by rotator cuff muscles

🩺 Clinical Correlation:

- Weak inferior capsule →

  ➡ common site of shoulder dislocation (anteroinferior)

💡 REVISION TRICK

👉 "SITS on scapula" (Rotator cuff)

- Supraspinatus
- Infraspinatus
- Teres minor
- Subscapularis

🟢 SPECIAL ATTACHMENTS OF SCAPULA

🔸 ATTACHMENTS ON GLENOID TUBERCLES

📌 Key Points

Structure	Muscle	Type	Function
Supraglenoid tubercle	Long head of biceps brachii	Origin	Stabilizes shoulder joint + flexes elbow
Infraglenoid tubercle	Long head of triceps brachii	Origin	Extends elbow + stabilizes shoulder

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Concept 💡

👉 These muscles cross the shoulder joint ➡ Help in joint stabilization during movement

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🩺 Clinical Insight:

- Long head of biceps → common site of tendinitis

- Pain felt in anterior shoulder

🔸 ATTACHMENTS ON CORACOID PROCESS

Muscle	Attachment	Region
Pectoralis minor	Insertion	Superior surface
Short head of biceps brachii	Origin	Lateral part of tip
Coracobrachialis	Origin	Medial part of tip

🔹 Mnemonic 💡

👉 "BBC on Coracoid"

- Biceps (short head)

- Brachialis (coracobrachialis)
- Chest minor (pectoralis minor)

🔹 Functional Insight

- Coracoid acts like a hook-like anchor ⚓
- Provides attachment for muscles connecting:
  - Arm
  - Scapula
  - Thorax

🔸 ATTACHMENTS ON SPINE & ACROMION

Structure	Muscle	Attachment
Crest of spine (upper border)	Trapezius	Insertion

Crest of spine (lower border)	Deltoid	Origin
Acromion (medial border)	Trapezius	Insertion
Acromion (lateral border)	Deltoid	Origin

Concept 💡

👉 Spine of scapula divides:

- Posterior muscles (rotator cuff)
- Superficial movers (trapezius & deltoid)

🔸 CAPSULAR ATTACHMENTS

🔹 Shoulder Joint Capsule

- Attached to:
    - Margin of glenoid cavity
    - Includes glenoid labrum

👉 Labrum deepens socket → increases stability

🔹 Acromioclavicular Joint Capsule

- Attached between:
    - Acromion
    - Clavicle

🩺 Clinical Insight:

- Injury → shoulder separation ❗

🔸 LIGAMENTOUS ATTACHMENTS

(CORACOID PROCESS) 🔗

📌 Important Ligaments

Ligament	Attachment	Function
Coracoacromial	Coracoid → Acromion	Forms protective arch
Coracohumeral	Coracoid → Humerus	Strengthens capsule
Coracoclavicular	Coracoid → Clavicle	Stabilizes clavicle
Suprascapular ligament	Over suprascapular notch	Forms foramen
Spinoglenoid ligament	Around spinoglenoid notch	Protects nerve

🔸 SUMMARY TABLE ⭐

Muscle	Attachment on Scapula
Long head of biceps	Supraglenoid tubercle
Long head of triceps	Infraglenoid tubercle
Short head of biceps	Coracoid process
Coracobrachialis	Coracoid process
Pectoralis minor	Coracoid process
Subscapularis	Subscapular fossa
Supraspinatus	Supraspinous fossa
Infraspinatus	Infraspinous fossa

Teres minor	Lateral border
Teres major	Lateral border
Rhomboids	Medial border
Levator scapulae	Medial border
Serratus anterior	Medial border (costal surface)
Trapezius	Spine & acromion
Deltoid	Spine & acromion

🟢 APPLIED ANATOMY 🩺

🔸 1. Winging of Scapula 🪽

📌 Cause:

- Injury to long thoracic nerve

📌 Muscle affected:

- Serratus anterior

🔹 Result:

- Medial border of scapula becomes prominent
- Patient cannot:
  - Push against wall properly
  - Abduct arm beyond 90°

🔹 Clinical Test:

👉 Ask patient to push against wall → scapula protrudes

🔸 2. Shoulder Drop

📌 Cause:

- Paralysis of trapezius

📌 Nerve:

- Spinal accessory nerve (CN XI)

🔹 Result:

- Drooping shoulder
- Difficulty in:
    - Elevation of scapula

- Overhead abduction

-> The End <-