

# Clinical Anatomy of Scapular Muscles

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### 1. Deltoid

- **Axillary nerve injury** (fracture of surgical neck of humerus, inferior dislocation of shoulder):
  - Paralysis of deltoid.
  - Loss of abduction beyond 15°.
  - Flattening of shoulder contour.
  - Loss of skin sensation over regimental badge area.
- **Safe IM injection site** ? middle of deltoid belly (avoid axillary nerve & posterior circumflex humeral vessels).

### 2. Supraspinatus

- **Rotator cuff syndrome (painful arc syndrome):**
  - Most commonly torn tendon in rotator cuff injuries.
  - Pain during abduction (60°–120°).

- **Calcific tendinitis** ? calcium deposition in tendon ? painful abduction.
  - **Suprascapular nerve entrapment** ? weakness of initiation of abduction.
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### 3. Infraspinatus

- **Injury to suprascapular nerve** (at spinoglenoid notch):
    - Isolates infraspinatus.
    - Weakness of lateral rotation of arm.
  - **Tear of tendon** ? difficulty in external rotation.
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### 4. Teres Minor

- **Axillary nerve palsy**:
    - Paralysis of teres minor + deltoid.
    - Loss of abduction and external rotation.
  - Selectively tested by resisted external rotation in adduction.
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### 5. Teres Major

- **Not part of rotator cuff** (does not stabilize joint).

- Forms **posterior axillary fold** (with latissimus dorsi) ? palpable landmark in axilla.
  - Lower subscapular nerve injury ? weakness of adduction and medial rotation.
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## 6. Subscapularis

- **Part of rotator cuff** (anterior stabilizer).
  - Tendon tear ? increases risk of anterior dislocation of humeral head.
  - Weakness of medial rotation and adduction.
  - Tested clinically by **lift-off test** (patient lifts hand off back ? if weak ? subscapularis lesion).
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## 7. Rotator Cuff as a Group

- Function ? stabilize humeral head in glenoid cavity during movement.
  - **Rotator cuff tear (SITS muscles):**
    - Common in elderly & athletes.
    - Leads to painful abduction, weakness of rotation, instability of shoulder joint.
  - **Sites of entrapment & nerve involvement:**
    - Suprascapular nerve ? supraspinatus, infraspinatus weakness.
    - Axillary nerve ? deltoid, teres minor paralysis.
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- Clinical tests:
  - **Empty can test** ? supraspinatus tendon integrity.
  - **External rotation test** ? infraspinatus/teres minor.
  - **Lift-off test** ? subscapularis.