

Trapezius & Latissimus Dorsi

Trapezius

Origin

- External occipital protuberance.
- Medial ? of superior nuchal line.
- Ligamentum nuchae.
- Spinous processes of C7–T12 vertebrae.

Insertion

- Lateral ? of clavicle.
- Acromion.
- Spine of scapula.

Nerve Supply

- **Motor** ? Spinal accessory nerve (cranial nerve XI).
- **Proprioceptive sensation** ? Ventral rami of C3, C4.

Actions

- Upper fibers ? Elevate scapula.
- Middle fibers ? Retract scapula.
- Lower fibers ? Depress scapula.
- Upper + lower ? Rotate scapula upward for overhead abduction ($>90^\circ$).

Clinical Anatomy

- Accessory nerve injury (neck dissection, lymph node biopsy) ? shoulder droop, difficulty shrugging.
- Weakness of upward abduction of arm.

Latissimus Dorsi

Origin

- Spinous processes of T7–L5.
- Thoracolumbar fascia.
- Iliac crest.
- Lower 3–4 ribs.
- Sometimes from inferior angle of scapula.

Insertion

- Floor of intertubercular sulcus (bicipital groove) of humerus.

Nerve Supply

- Thoracodorsal nerve (C6–C8).

Actions

- Extends, adducts, and medially rotates humerus.
- Powerful muscle in climbing, swimming, rowing.
- Raises trunk to arm (pull-ups).

Clinical Anatomy

- Used in **flap surgery** (muscle graft in breast reconstruction).
- Paralysis (thoracodorsal nerve injury) ? difficulty climbing.

Dissection

Step 1: Skin Incision

- Midline incision from external occipital protuberance to sacrum.
- Transverse incisions across scapula and iliac crest.
- Reflect skin laterally.

Step 2: Expose Trapezius

- Identify trapezius in upper back (triangular sheet).

- Clean attachments from occipital bone, nuchal ligament, and spinous processes.
- Reflect laterally toward scapula.
- Beneath trapezius ? identify **accessory nerve and transverse cervical vessels**.

Step 3: Expose Latissimus Dorsi

- Identify broad muscle in lower back.
- Clean attachments from thoracolumbar fascia, iliac crest, spinous processes, ribs.
- Reflect laterally toward humerus.
- Identify **thoracodorsal nerve and vessels** entering muscle.

Step 4: Demonstrations

- Contraction of trapezius ? ask subject to shrug shoulders.
- Contraction of latissimus dorsi ? ask subject to adduct/extend arm against resistance (as in climbing).