

## LEVATOR SCAPULAE

### *Origin*

Transverse processes of C1 to C4 vertebrae

### *Insertion*

Superior medial border of scapula

### *Action*

Elevation of the scapula coupled with extension and lateral flexion of the neck  
Helps to control neck extension on the contralateral side and scapula abduction in the later stage when eccentrically loaded

### *Nerve supply*

Cervical and dorsal scapular nerve  
C3, C4, C5

### *Arterial supply*

Dorsal scapular artery



### *Clinical facts*

Works synergistically with the upper fibers of trapezius.  
It is relatively common for the cervical vertebra attachments to vary (e.g. C1–C3).  
Some levator scapulae fibers may attach to occipital bone, mastoid process of temporal bone, or 1st to 2nd ribs.  
Levator scapulae fibers are known to merge with those of the trapezius, serratus anterior, and scalenes.

Muscle tension is often reported in the mid region of the muscle due to the anatomical positioning resulting in a spiral adaptation. Clinicians may mistake this for myofascial trigger points.

Damage to the muscle may result in sensory disturbances such as numbness and paresthesia.

**Palpation**

1. Client may be seated or prone with the forearm comfortably positioned over the lower back with palm facing upward. In this position, the fibers of the levator scapulae are more accessible as the trapezius is relaxed.
2. The palpating hand is then placed superiorly to the angle of the scapula.
3. To best locate the belly of levator scapulae, the client can elevate and then depress their scapula on the side being palpated.
4. Palpate along the muscle fibers as levator scapulae extends to the lateral aspect of the neck.
5. Remember levator scapulae is deep to the trapezius so practice palpation with eyes closed to feel through muscle tissue.

**Manual muscle test****Position**

Seated, with head laterally flexed, rotated and slightly extended to the ipsilateral side.



**Test**

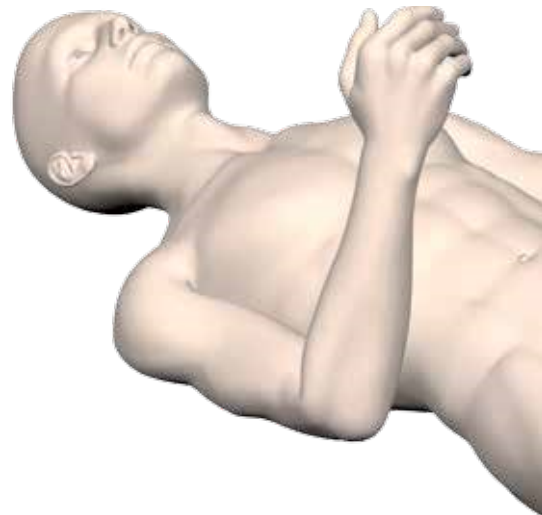
Practitioner applies a strong (about 75%) resistance toward opposite lateral flexion and roughly 25% inferiorly toward scapula. This should always be done in the direction of the muscle fibers.

**Stabilization**

Stabilizing hand is placed firmly on the ipsilateral shoulder.

**Kinesiology muscle test****Position**

Seated or supine. Flex the elbow and maximally drop the shoulder by giving shoulder traction down toward hip until engagement of the neck and head is observed. Adduct and slightly extend the humerus. There should be minimal lumbar side bending.



**Test**

Client is instructed to hold this position. Practitioner rocks their own body slightly, exerting a light pull on the medial elbow toward abduction. Watch for inferior rotation of the superior angle of scapula rather than feeling a lock in the test. It is easy to be too heavy-handed.

**Stabilization**

Stabilize the test by supporting the ipsilateral shoulder to encourage it to be pulled downward.

**Kinesiological associations**

Organ: Lung and parathyroid  
Acupuncture meridian: Lung  
Emotion: Grief and stress

Video: Levator scapulae

