

August 30, 2023 - Dr. Krebs (claudia.krebs@ubc.ca)

Objectives:

- Apply the anatomical orientations to the anatomy of the back
- Identify the components of the scapula
- Describe the anatomy of the back
- Identify trapezius, levator scapulae and the rhomboid muscles
- Identify three muscles of the rotator cuff: supraspinatus, infraspinatus and teres minor
- Identify the accessory nerve as it enters the trapezius

Back Muscles:

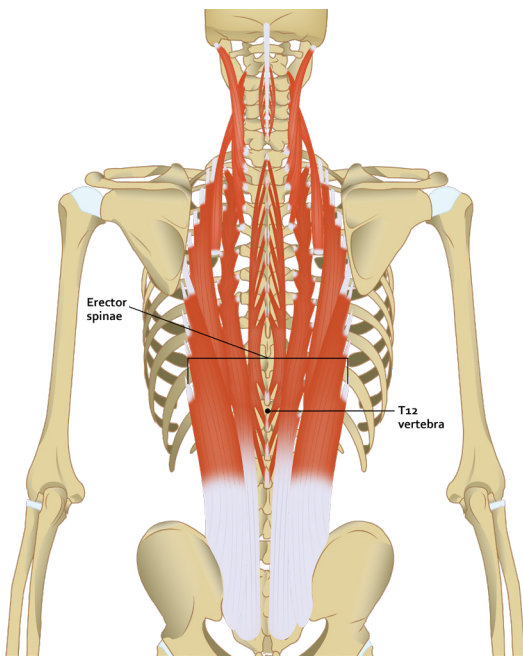
Trapezius

Latissimus dorsi

Rhomboides major and minor

Levator scapulae

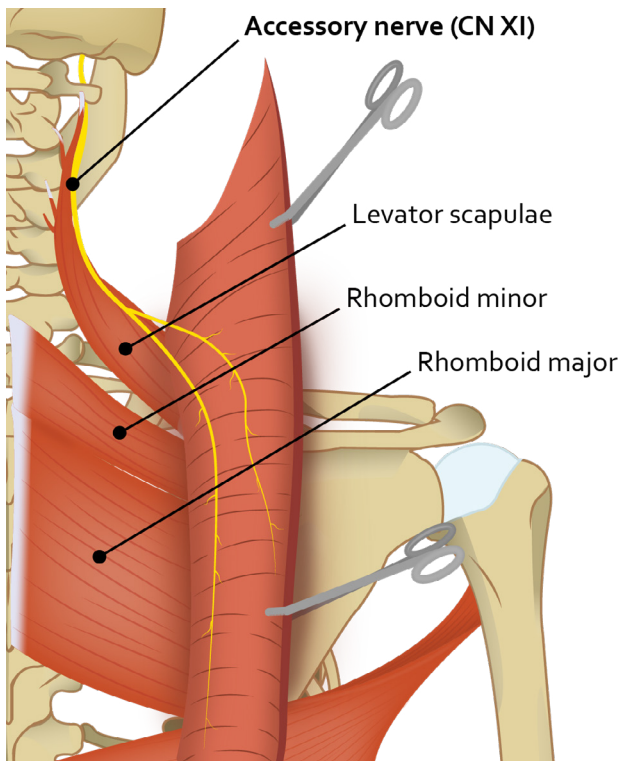
Erector spinae (*as a group - you do not need to learn individual components*)



Deep Muscles of the Back
- Erector Spinae -

Superficial Muscles of the Back

Identify these muscles on the following specimen in the virtual lab:



Accessory Nerve on Underside of Trapezius

Dissection of Superficial Back Muscles

Test your knowledge on these interactive photographs:

Nerves:

Accessory Nerve (CN XI)

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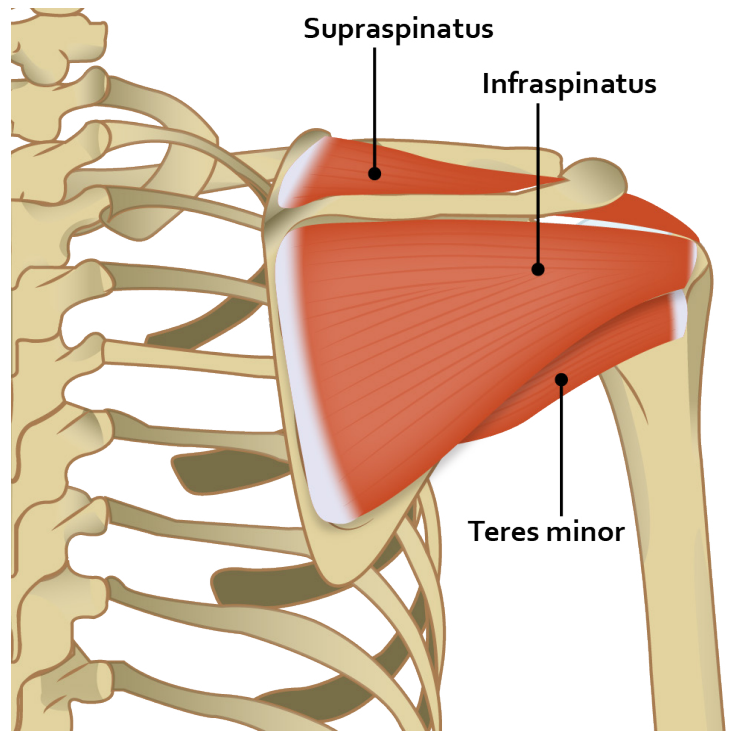
Rotator Cuff Muscles:

- Supraspinatus
- Infraspinatus
- Teres minor
- Subscapularis (*we will not identify this muscle*)

Use these modules for reference:

Scapula Bone:

- Spine
- Acromion
- Superior, inferior and lateral angles
- Superior, lateral and medial borders



Rotator Cuff Muscles

Identify these structures on the following specimens in the virtual lab:

Scapula (posterior)

LAB 1 DISSECTOR

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Notes:

- Only cut what you see and see what you know
- Beware of scalpel blades and your proximity to your neighbors
- Keep an atlas near you at all times to orient yourself
- Superficial fascia (including fatty tissue) is generally unorganized, therefore remove until you can see organized muscle tissue

1. Start with a superficial incision at the midline (see figure below)

- Palpate the iliac crest of the pelvis and begin the incision at that level
- Stop the incision at the occipital bone
- Make a couple of perpendicular incisions to the midline incision and continue to the mid-axillary line

Note: Fat distribution varies between males and females. Males tend to have a greater amount of fat in the shoulder region.

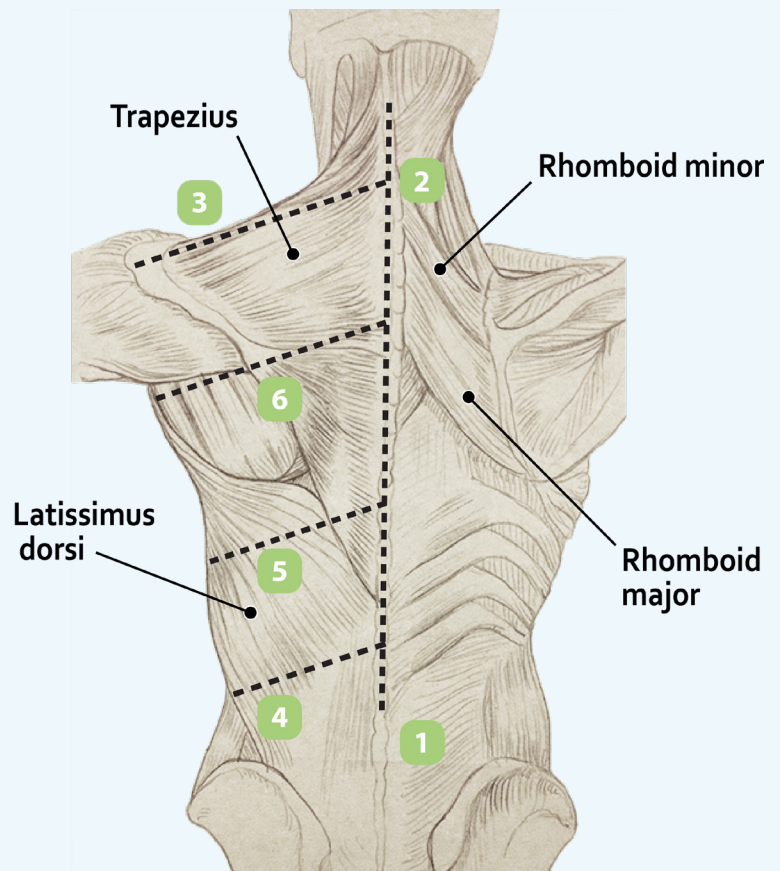
2. Remove the skin and the superficial fascia by grasping the fascia with your tweezers and pulling up, thereby producing some tension on the fascia, and use the scalpel blade to remove the fascia.

Note: As you get closer to the muscle tissue you may find it helpful to use the blunt side of the scalpel blade. You may find that the scalpel blades dull quickly while removing the fascia. Feel free to change the blades frequently.

3. Mobilize the lateral edge of the trapezius muscle fibers with either your finger or your scalpel:

- Moving medially and using the blunt edge of the forceps or scissors, separate the trapezius muscle from the underlying muscles until you come to a natural stop near the shoulder region
- Using scissors, cut medially over the vertebral column to reflect the trapezius (**do not remove**), detach the muscle from the spine of the scapula and expose the rhomboids underneath

Note: With thinner muscles, avoid using sharp instruments during dissection.



The numbers and lines in the diagram refer to the skin incision to be made. The underlying muscles are shown for your reference: superficially, trapezius on the left and the underlying rhomboids on the right.

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4. *On the underside of the reflected trapezius muscle, remove the fascia gently:*
 - Notice a nerve vessel bundle
 - Follow this bundle by removing fascia gently to isolate the nerve (**accessory**) and vessel (superficial branch of the **transverse cervical artery**)
 - The accessory nerve will be underneath the vessels
5. *Once the trapezius muscle is reflected you will see the levator scapulae and the two rhomboids (major and minor), all of which insert on the medial border of the scapula:*
 - There is a vessel located medially near the vertebral column that separates the rhomboid minor superiorly and rhomboid major inferiorly

Note: Sometimes these two muscles are fused and/or the vessel is not visible as a reliable landmark. Know the attachments and functions of the rhomboidei.

Note: To practice dissection skills, remove all superficial fascia on the latissimus dorsi and observe muscle fibre orientation.

6. *Palpate the scapular spine. Carefully remove the deltoid muscle from the spine up to the acromion.*
7. *Identify the supraspinatus muscle superior to the scapular spine and the infraspinatus muscle inferiorly.*
8. *Identify teres minor inferior to infraspinatus.*
9. *Place all removed tissue in the white plastic container underneath the cadavers.*
10. *Use string to tie the flaps of tissue to their original location.*

