A patient suffers a puncture wound in the back just lateral to the 2nd thoracic vertebra. The puncture wound courses until it hits the erector spinae muscle group. From superficial to deep, identify the correct order of muscles hit by the protruding object.

A. Trapezius, latissimus dorsi, rhomboids, erector spinae m.
B. Trapezius, rhomboids, serratus posterior superior, splenius c., erector spinae m.
C. Trapezius, rhomboids, splenius m, erector spinae m.
D. Trapezius, rhomboids, serratus posterior superior, erector spinae m.
E. Trapezius, rhomboids, splenius m., serratus posterior superior, erector spinae m.

Anterior Chest Wall

- Anterior Chest Wall
  - Osteology (dry lab)
    - Gray’s pp. 118-126
    - Gray’s Dissector pp. 49-54

- Anterior Chest Wall
  - Gray’s pp. 115-135; 333-336
  - Gray’s Dissector pp. 55-72
Skin of the Anterior Chest Wall

Lines of the Thoracic Wall
Breasts

Anatomy of the Female Breast

Syllabus p. 31
Innervation of the Breast

Blood Supply of the Breast
Lymphatics of the Breast

The Lymphatic System

- Capillaries
- Vessels
- Nodes
- Lymphocytes
Lymphatic Ducts

- Thoracic Duct
- Right Lymphatic Duct

Lymphatics of the Right Breast

![Diagram of lymphatic system, focusing on the right breast and associated lymph nodes.](image-url)
Cancer develops in the right breast of a 34 year old woman. The woman experiences a loss of sensation in her nipple. Which nerve is likely affected by the tumor?

- A. T1
- B. T2
- C. T3
- D. T4
- E. T5
Lymphatic drainage to the right upper quadrant of the breast is also compromised. Which of the following lymph nodes are more greatly affected?

A. Axillary lymph nodes - Right lymphatic duct
B. Paraesthesia lymph nodes - Right lymphatic duct
C. Intercostal lymph nodes – Right lymphatic duct
D. Axillary lymph nodes – Thoracic duct
E. Intercostal lymph nodes – Thoracic duct

Muscles of the Thoracic Wall

- Pectoralis Muscles*
- Serratus Anterior Muscles*
- Subclavius*
- Intercostals*
- Transversus Thoracis
- Subcostalis
- Diaphragm

Syllabus pp. 32
Pectoralis Major and Minor

Innervation of the Pectoralis Major and Minor
Innervation of the Pectoralis Major

Serratus Anterior
The Lateral Thoracic Artery (Serratus Anterior)

Subclavius
A mastectomy is used to remove a cancerous tumor from a 46 year old woman. The procedure involves excision of the breast tissue to the pectoralis major muscle, associated fascia, and into the medial axillary wall. After the procedure the woman has a noticeable winged scapula. The following nerve is most likely damaged:

A. Spinal accessory n.
B. Lateral pectoral n.
C. Long thoracic n.
D. Dorsal scapular n.
E. Nerve to the subclavius.
Intercostal Muscles

Intercostal Muscles

Intercostal Nerves and Vessels

Intercostal Nerves and Vessels
Clinical Correlates

FYI: Diaphragm will be discussed in the next lecture
Arteries of the Thorax

Veins of the Thorax

Syllabus p. 33

Syllabus p. 34
Trapezius

SCREEN 2
Trapezius, Rhomboid m., Serratus Posterior Superior, Splenius m.

Deep Muscles of Back
Segmental Innervation of the Anterior Skin
The Female Breast
Lymphatics of the Right Breast
Lymphatics of the Left Breast
Innervation of the Pectoralis Major and Minor
Intercostal Nerves and Vessels