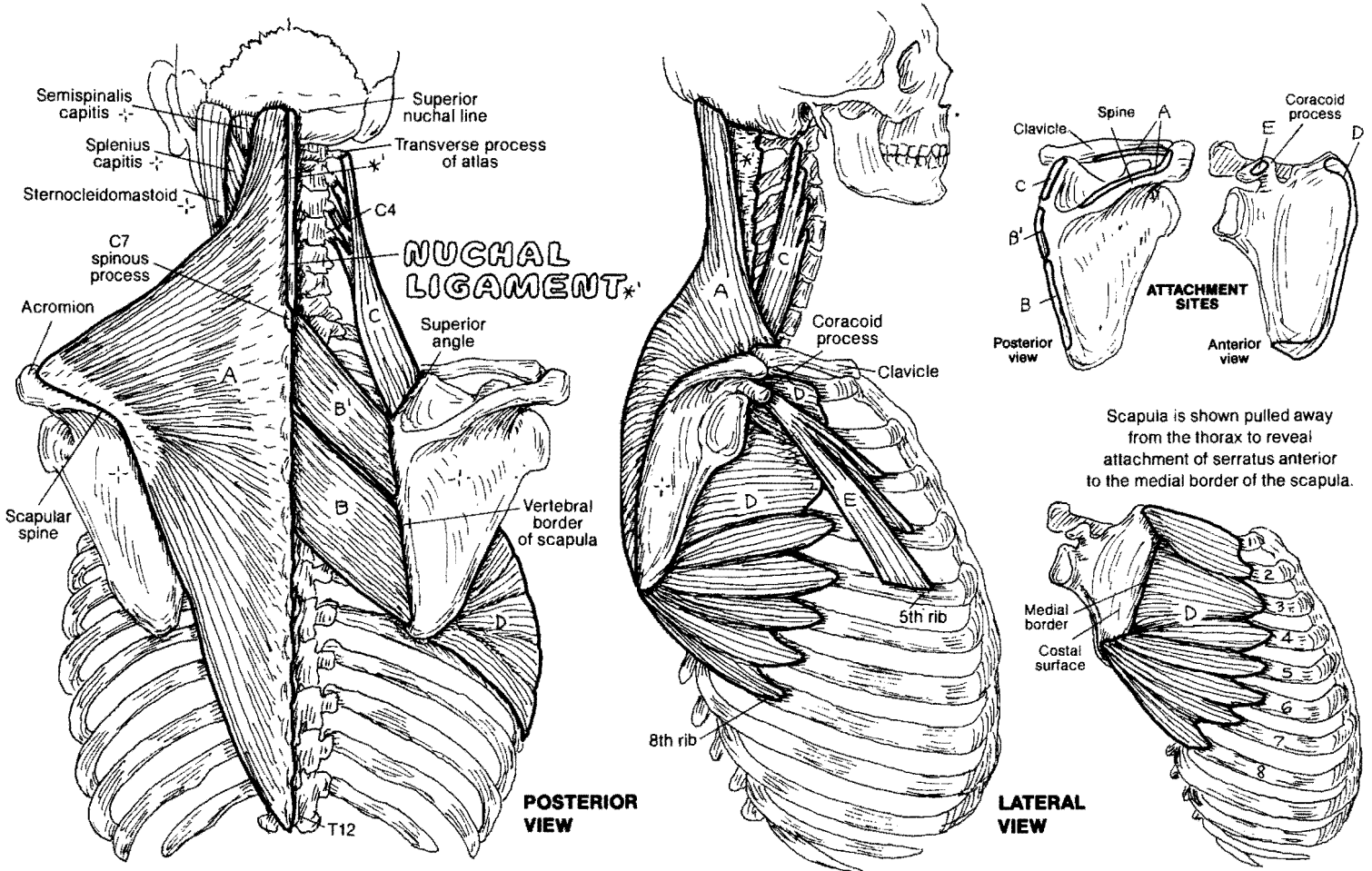


MUSCLES OF SCAPULAR STABILIZATION

**TRAPEZIUS_A, RHOMBOID MAJOR_B,
RHOMBOID MINOR_B, LEVATOR SCAPULAE,
SERRATUS ANTERIOR_D, PECTORALIS MINOR_E**

CN: (1) Color the six muscles of scapular stabilization. Note that the two rhomboids receive the same color (B). In the two main views, color gray the nuchal ligament and its title.

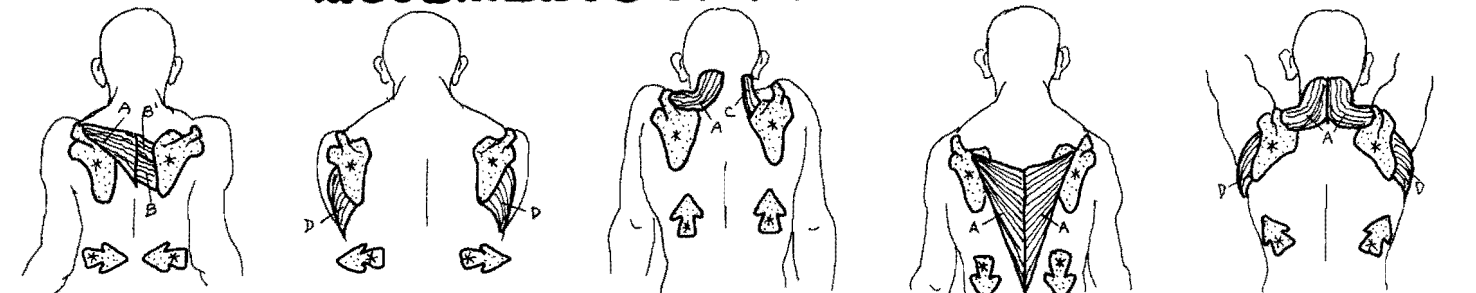
(2) Color the attachment site diagrams at upper right. (3) In the illustrations below describing scapular movement, note that the three regions of trapezius (A) play different roles. Color gray the scapulae, the arrows, and the movement titles.



The scapula lies on the posterior thorax, roughly from T 2 to T 8. It has no direct bony attachment with the axial skeleton. Enveloped by muscle, it glides over the fascial-covered thorax during upper limb movement (scapulohoracic motion). Bursae have been reported between the thorax and the scapula; so has bursitis. The scapula is dynamically moored to the axial skeleton by muscles attaching the scapula to the axial skeleton. These *muscles of scapular stabilization* make possible considerable scapular mobility and, therefore, shoulder/arm mobility.

Note the roles of these 6 muscles in scapular movement, and note how the shoulder and arm are affected. *Pectoralis minor* assists *serratus anterior* in protraction of the scapula such as in pushing against a wall; it also helps in depression of the shoulder and downward rotation of the scapula. Consider the power resident in *serratus anterior* and *trapezius* in pushing or swinging a bat. Note the especially broad sites of attachment of the *trapezius* muscle. *Trapezius* commonly manifests significant tension with hard work—mental and physical. A brief massage of this muscle often brings quick relief.

MOVEMENTS OF THE SCAPULA*



RETRACTION. PROTRACTION. ELEVATION. DEPRESSION. UPWARD ROT.

Military posture ("squaring the shoulders")

Pushing forward with outstretched arms and hands.

Shrugging the shoulders or protecting the head.

Straight arms on parallel bars, holding weight.

Lifting or reaching over head.