

- 1 The entire organ is covered with fibrous connective tissue that forms a sheath called the **epimysium**.
- 2 The fibrous tissue of the epimysium extends inward to form sheaths around bundles, or **fasciculi**, of muscle cells. This inner fibrous sheath is called the **perimysium**.
- 3 The perimysium's fibrous tissue continues inside each fascicle to wrap around each individual muscle cell. The connective tissue sheath around individual muscle fibers is called the **endomysium**. Just deep to the endomysium is the sarcolemma.
- 4 All the fibrous sheaths are continuous with one another and contain blood vessels that supply the muscle fibers. At the ends of the muscle organ, the muscle fibers stop while the connective sheaths continue. This forms an extension of dense fibrous connective tissue that attaches to the periosteum of a bone (or to another muscle). If the fibrous connection is in the shape of a strap or band, it is called a **tendon**. If it is a broad, flat sheet, it is called an **aponeurosis**.
- 5 Generally a muscle attaches to the skeleton at two ends. The end that attaches to the more stationary bone is called the **origin**. The other end, or **insertion**, attaches to the bone that moves as the muscle contracts.

C. Naming skeletal muscles

Muscle **nomenclature** is the system of naming skeletal muscle organs. The names of muscles, as with many organs, are in Latin rather than in English. By using only a handful of descriptive Latin words, in combinations of two or three, anatomists have named all the muscles of the human body. Review these terms used to name muscles because they will come in handy when you learn specific muscle names in the next exercise.

- 1 Muscles can be named for their overall shape. Review these terms related to muscle shape:

deltoid	shaped like <i>delta</i> (Δ)
orbicularis	circular
platy	flattened; platelike
quadratus	square
rhomboideus	diamond-shaped
trapezius	trapezoidal
triangularis	triangular

- 2 Some muscles are named for their points of attachment (*origin* and *insertion*). For example, the *sternocleidomastoid* muscle has attachments on the sternum, clavicle, and mastoid process of the temporal bone.
- 3 Muscles can be named according to relative size:

brevis	short
longus	long
magnus	large
maximus	largest
medius	moderately sized
minimus	small

- 4 The direction of fibers visible in a muscle can be a basis for its name, using these terms:

oblique	diagonal to the body's midline
rectus	parallel to the midline
sphincter	circling an opening
transversus	at a right angle to the midline

- 5 Some muscle names are derived from the action(s) produced:

abductor	abducts a part
adductor	adducts a part
depressor	depresses a part
extensor	extends a part
flexor	flexes a part
levator	elevates a part
rotator	rotates a part

- 6 Some muscles are named for the region in which they are found. Some of these terms should be familiar to you:

brachialis	arm
frontalis	frontal (bone)
femoris	femur
gluteus	posterior of hip/thigh
oculi	eye
radialis	radius
ulnaris	ulna