

Transversus Abdominis — This is the innermost of the abdominal muscle layers. Its fibers extend ventrally and slightly caudally, almost parallel to those of the external oblique. It arises from the lower rib and the lumbar vertebrae and inserts along the linea alba by an aponeurosis. The arrangement of the fibers of the three layers gives the abdominal wall its strength. Below the transversus abdominis lies the thin glistening membrane, the *parietal peritoneum* which lines the abdominal cavity.

The three layers of abdominal muscles are separated and clearly visible in the closeup photo, page 27.

Rectus Abdominis — In the mid-ventral area, on either side of the linea alba, lie two parallel muscles. They extend from the pubis cranially to insert on the upper ribs and sternum. For much of their course they lie between the aponeurosis of the internal oblique and the transversus abdominis.

Latissimus Dorsi — Although this is primarily a muscle of the thoracic region, it is very prominent on the abdominal ventral surface as well. It arises from aponeuroses along the mid-dorsal line of the posterior thoracic region and from most of the lumbar region. It covers the lateral surface of the body in this area. It extends ventrally to insert on the humerus. It gives to the humerus great power for pulling backward when the pig is running.

Thigh

Two broad, thin superficial muscles are visible in the anteroventral thigh area. The *femoral artery* can be seen passing between them. They are the:

Sartorius — This muscle occupies the anterior half of the thigh. It resembles a flattened band about ½ inch wide. Separate it from the neighboring muscles. Origin: the iliac. Insertion: the proximal end of the tibia. Action: adducts the thigh and extends the lower hindleg.

Gracilis — The second medial superficial thigh muscle is also broad and thin. It covers the posterior position of the medial (inner) thigh. Its origin is near the pubic symphysis of the pubis and inserts upon the proximal third of the tibia on the medial side.

Shoulder and Neck Muscles

Brachiocephalic — This large prominent muscle seen in the photos, pages 26 and 28, extends from the back of the neck, the mastoid process and the back of the head. It lies upon the shoulder extending to the humerus. Its action is to move the forelimb anteriorly.

In those mammals where a clavicle is present, this muscle is divided into two. The anterior portion extends from the neck to the clavicle and is known as the *clavotrapezius*, while the posterior portion extending from the clavicle to the humerus is known as the *clavodeltoid*, or *clavobrachialis*. The pig, however, has no clavicle, thus the brachiocephalic is a single muscle.

In the mid-ventral neck area, several muscles may be seen. Use your needle probe to separate some of these narrow bands of muscle.

Sternomastoid (Sternocephalic) — This is a large “V”-shaped band of muscle on the ventral and lateral surfaces of the neck. It extends from the anterior position of the sternum to the mastoid process. It acts to flex the head upon the chest and to incline it to one side.

Two other bands of muscles in this area are the *cleidomastoid* and the *omohyoid*.

Several narrow bands of muscle cover the throat. They extend from the sternum, to the hyoid and larynx on the ventral side of the neck. The names of these muscles indicate their origins and insertions. They include the:

Sternohyoid — This is the most ventral of these muscles. It runs along the mid-ventral line in an anterior to posterior direction.

Sternothyroid — Bisect and reflect the sternohyoid and the sternothyroid will be seen deep and lateral to it. It covers the thyroid gland and trachea.

Thyrohyoid — This is a shorter muscle which extends from the insertion of the sternothyroid to the hyoid.