

BEGINNING THE DISSECTION

At this point, some instructors may choose to begin the examination of the oral, the abdominal, and the thoracic cavities. Thus, in many introductory courses, the study of the muscles is skipped entirely. Others may choose to proceed first to a study of the musculature.

In this manual both approaches are satisfied. We shall begin with a study of muscles and follow this with an examination of the oral, abdominal, and thoracic cavities.

Skinning the Pig

Tie the animal to the dissection pan with limbs extended, ventral surface upward. Use your scalpel, forceps, and blunt probe. Proceed as in the accompanying photo, p. 22.

1. Make a mid-ventral incision in the skin from the jaw to the umbilical cord. Be careful to cut the skin only, not the underlying delicate muscle tissue. Do *not* remove the skin from the head (face or skull).
2. Cut around the umbilical cord and proceed posteriorly as in the photo to a point just anterior to the external genitalia.
3. As you cut with the scalpel, lift the skin with your forceps and separate the skin from the underlying muscles. You will note that the two are held together by a white fibrous connective tissue known as the *superficial fascia*. Cut the fascia as you loosen the skin.
4. Continue to reflect the skin toward the dorsal side. Use the back of your scalpel, a blunt probe, or your fingers to facilitate separation.
5. Cut along the medial surface of the forelimbs and hind limbs and extend to the wrists and ankles.
6. Leave the skin intact around the urogenital and anal areas (*perineum*). Remove the skin from the proximal 1/3 of the tail.
7. Turn the pig over. Complete the skinning of the limbs and the entire dorsal surface from the base of the skull, the neck, dorsal thorax and abdomen, to the proximal 1/3 of the tail. Do not discard the skin. Use it to wrap the pig, in addition to wet paper towels at the close of each dissection session. The only areas still covered by skin are the head, feet, perineum, and the distal portion of the tail.

Your pig should now appear as the one in the photo, p. 26.

Look for light brown fibers adhering tightly to the underside of the skin. These are *cutaneous muscles*. They include the:

Cutaneous Maximus — This muscle covers most of the sides of the body in the thoracic and abdominal areas. It serves to twitch the skin to avoid irritants. It originates from muscles in the axilla, the thorax, and abdomen, and inserts on the skin. It is not found in man.

Platysma — This is another cutaneous muscle. It is found on the lateral surface of the head and neck. It moves the skin on the neck and face. It originates from the mid-dorsal area over the neck and inserts in the skin of the face near the ears, eyes, and mouth.

As you continue the dissection trim the fascia, other connective tissue and fat covering the muscles. Observe the direction in which the muscle fibers lie. The fibers of a single muscle are generally oriented in only one direction. Look for natural separations between muscles, then slit the