

Laboratory Exercise

20

Muscles of the Face, Head, and Neck

Materials Needed

Textbook
Human torso model with musculature
Human skull
Human skeleton, articulated

For Learning Extension:

Long rubber bands

The skeletal muscles of the face and head include the muscles of facial expression, which lie just beneath the skin; the muscles of mastication, attached to the mandible; and the muscles that move the head, located in the neck.

Purpose of the Exercise

To review the locations, actions, origins, and insertions of the muscles of the face, head, and neck.

LEARNING OUTCOMES

After completing this exercise, you should be able to

1. Locate and identify the muscles of facial expression, the muscles of mastication, and the muscles that move the head.
2. Describe and demonstrate the action of each of these muscles.
3. Locate the origin and insertion of each of these muscles in a human skeleton and the musculature of the human torso model.

EXPLORE

Procedure—Muscles of the Face, Head, and Neck

1. Review the sections entitled “Muscles of Facial Expression,” “Muscles of Mastication,” and “Muscles That Move the Head and Vertebral Column” in chapter 9 of the textbook.
2. As a review activity, label figures 20.1, 20.2, and 20.3.

3. Locate the following muscles in the human torso model and in your body whenever possible:

muscles of facial expression

epicranius
frontalis
occipitalis
orbicularis oculi
orbicularis oris
buccinator
zygomaticus major
zygomaticus minor
platysma

muscles of mastication


masseter
temporalis
medial pterygoid
lateral pterygoid

muscles that move the head and neck

sternocleidomastoid
splenius capitis
semispinalis capitis
erector spinae (cervical components)

4. Demonstrate the action of these muscles in your body.
5. Locate the origins and insertions of these muscles in the human skull and skeleton.
6. Complete Parts A, B, and C of Laboratory Report 20.

Learning Extension

A long rubber band can be used to simulate muscle locations, origins, insertions, and actions on the human torso model, the skeleton, or a laboratory partner. Hold one end of the rubber band firmly on the origin location of a muscle, then slightly stretch the rubber band and hold the other end on the insertion site. Allow the insertion end to slowly move toward the origin end to simulate the contraction and action of the muscle. 

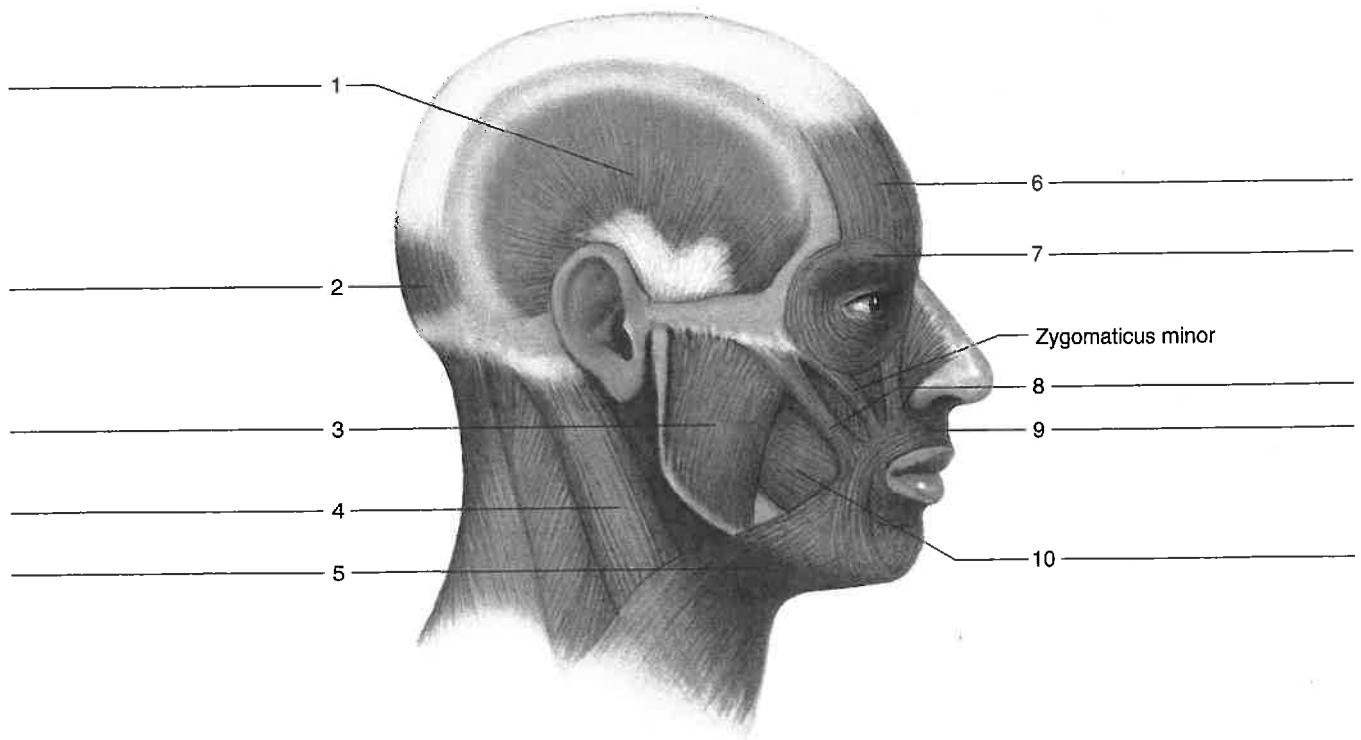



Figure 20.1 Label the muscles of expression and mastication. 

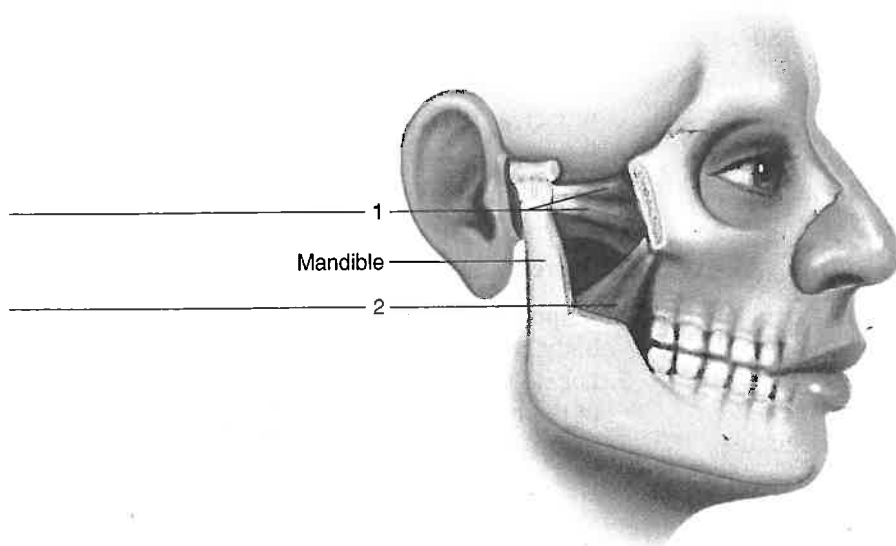

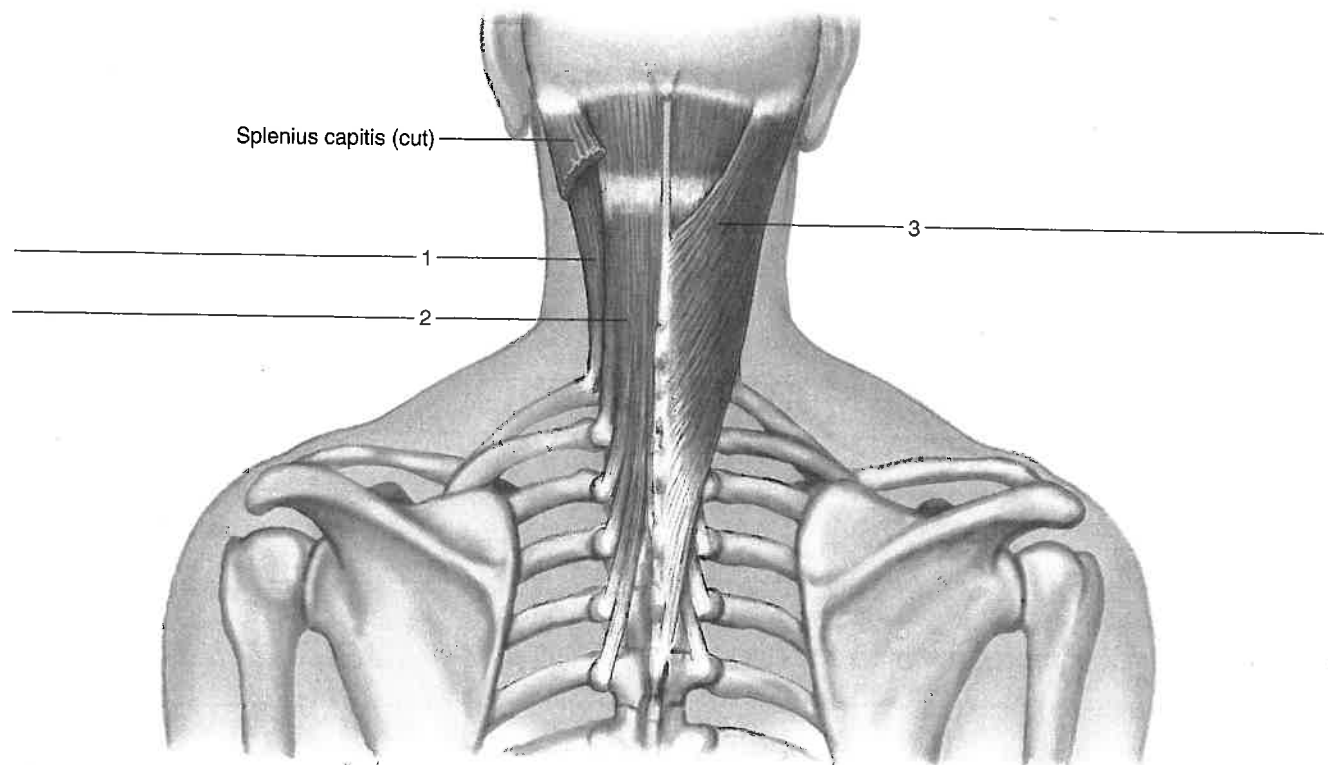


Figure 20.2 Label these deep muscles of mastication. 



Terms:

Longissimus capitis (erector spinae)

Semispinalis capitis

Splenius capitis

Figure 20.3 Label these deep muscles of the posterior neck (trapezius removed), using the terms provided. **A**

Notes