

UNIT 5 - MUSCULAR SYSTEM

ACTIVITY - Spaghetti Muscle Model

Objective:

The student will understand the anatomy of the individual muscle by creating it at the microscopic level. (This activity can be used as a demonstration.)

Materials:

- spaghetti
- straws
- plastic wrap
- quart size freezer bags (not Ziploc)
- clear tape
- marking pen

Strategy:

Students are grouped into partnerships. Each partnership will be given spaghetti and about 10-20 straws. The student will fill the straws with the spaghetti.

The straw represents the endomysium the covering of the individual muscle cell. The spaghetti inside the straw are the myofibrils. Using the marker the student can make dark lines on the spaghetti to represent the myofilaments.

Five or six straws are then wrapped with plastic wrap representing the perimysium. These are bundled together to represent the muscle bundles or fascicles.

Two or three bundles are placed in a plastic bag. This represents the outer most covering of the muscle the epimysium. Pulling the end of the bag and twisting creates the appearance of the tendon that attaches the muscle to the bone. Clear tape is placed just above the twist to secure the muscle bundles inside the bag.