Smooth Muscles

Smooth muscles — sometimes also called involuntary muscles — are usually in sheets, or layers, with one layer of muscle behind the other. You can't control this type of muscle. Your brain and body tell these muscles what to do without you even thinking about it. You cannot use your smooth muscles to make a muscle in your arm or jump into the air.

Smooth muscles are at work all over your body without you even realizing it. In your stomach and digestive system, for example, they contract (tighten up) and relax to allow food to make its journey through the body.

Smooth muscles are at work behind the scenes in your eyes, too. These muscles keep the eyes focused.

A Hearty Muscle

The muscle that makes up the heart is called cardiac muscle. It is also known as the myocardium (say: my-uh-KAR-dee-um). The thick muscles of the heart contract to pump blood out and then relax to let blood back in after it has circulated through the body.

Just like smooth muscle, cardiac muscle works all by itself with no help from you. A special group of cells within the heart are known as the pacemaker of the heart because it controls the heartbeat.

Skeletal Muscle

Now, let's talk about the kind of muscle you think of when we say "muscle" — the ones that show how strong you are and let you kick a soccer ball into the goal. These are your skeletal muscles — sometimes called striated (say: STRY-ay-tud) muscle because the light and dark parts of the muscle fibers make them look striped (striated is a fancy word meaning striped).
Skeletal muscles are voluntary muscles, which means you can control what they do. Your leg won't bend to kick the soccer ball unless you want it to. These muscles help to make up the **musculoskeletal** (say: mus-kyuh-low-SKEL-uh-tul) **system** — the combination of your muscles and your skeleton, or bones.

Together, the skeletal muscles work with your bones to give your body power and strength. In most cases, a skeletal muscle is attached to one end of a bone. It stretches all the way across a joint (the place where two bones meet) and then attaches again to another bone.

Skeletal muscles are held to the bones with the help of **tendons** (say: TEN-dunz). Tendons are cords made of tough tissue, and they work as special connector pieces between bone and muscle. The tendons are attached so well that when you contract one of your muscles, the tendon and bone move along with it.

Skeletal muscles come in many different sizes and shapes to allow them to do many types of jobs. Some of the biggest and most powerful muscles are your calf and thigh muscles. They give your body the power it needs to lift and push things. Muscles in your neck and the top part of your back aren't as large, but they are capable of some pretty amazing things: Try rotating your head around, back and forth, and up and down to feel the power of the muscles in your neck. These muscles also hold your head high.

**Face Muscles**

You may not think of it as a muscular body part, but your face has plenty of muscles. You can check them out next time you look in the mirror. Facial muscles don't all attach directly to bone like they do in the rest of the body. Instead, many of them attach under the skin. This allows you to contract your facial muscles just a tiny bit and make dozens of different kinds of faces. Even the smallest movement can turn a smile into a frown. You can raise your eyebrow to look surprised or wiggle your nose.

And while you're looking at your face, don't pass over your tongue — a muscle that's attached only at one end! Your tongue is actually made of a group of muscles that work together to allow you to talk and help you chew food. Stick out your tongue and wiggle it around to see those muscles at work.
**Major Muscles**

Here are a few of the major ones:

- In each of your shoulders is a **deltoid** (say: DEL-toyd) **muscle**. Your deltoid muscles help you move your shoulders every which way — from swinging a softball bat to shrugging your shoulders when you’re not sure of an answer.

- The **pectoralis** (say: pek-tuh-RAH-lus) **muscles** are found on each side of your upper chest. These are usually called **pectoralis** (say: PEK-tuh-rulz), or pecs, for short. When many boys hit puberty, their pectoral muscles become larger. Many athletes and bodybuilders have large pecs, too.

- Below these pectorals, down under your ribcage, are your **rectus abdominis** (say: REK-tus ab-DAHM-uh-nus) **muscles**, or **abdominals** (say: ab-DAHM-uh-nulz). They’re often called abs for short.

- When you make a muscle in your arm, you tense your **biceps** (say: BYE-seps) muscle. When you contract your biceps muscle, you can actually see it push up under your skin.

- Your **quadriceps** (say: KWAD-ruh-seps), or quads, are the muscles on the front of your thighs. Many people who run, bike, or play sports develop large, strong quads.

- And when it’s time for you to take a seat? You’ll be sitting on your **gluteus maximus** (say: GLOOT-ee-us MAK-suh-mus), the muscle that’s under the skin and fat in your behind!

**Answer the following questions using information from the passage.**

1. Where are smooth muscles located in the body?  __________________________________________________________

2. Why are skeletal muscles called striated muscles? __________________________________________________________

3. Name three examples of skeletal muscles:  _______________________________________________________________

4. ____________ help to hold skeletal muscles together.
5. **True or False?** Your tongue is a muscle. ____________
Your face does not have muscles like the rest of the body. ____________
The musculoskeletal system contains your muscles and bones. ____________

Match the muscle with the definition.

___ Pectoralis Muscles A. The muscle you sit on.
___ Deltoid Muscles B. The muscle in your arm.
___ Rectus Abdominis C. These muscles are located under your ribcage and are also called abdominal muscles.
___ Biceps D. These muscles help to swing a baseball bat.
___ Quadriceps E. The muscles found on each side of your chest.
___ Gluteus Maximus F. The muscles in front of your thigh.