**The Nervous System is the control center for all of the other body systems.**

The three main parts of the nervous system are the brain, spinal cord and nerve cells (neurons).

The brain, the most complex organ in the body and the control center for the nervous system, has three main parts: the cerebellum, the cerebrum, and the brain stem. The brain send electrical impulses to the neurons.

The biggest part of the brain is the cerebrum. The cerebrum makes up 85% of the brain's weight, and it's easy to see why. The cerebrum is the thinking part of the brain and it controls your voluntary muscles — the ones that move when you want them to. So you can't dance — or kick a soccer ball — without your cerebrum.

When you're thinking hard, you're using your cerebrum. You need it to solve math problems, figure out a video game, and draw a picture. Your memory lives in the cerebrum — both short-term memory (what you ate for dinner last night) and long-term memory (the name of that roller-coaster you rode on two summers ago). The cerebrum also helps you reason, like when you figure out that you'd better do your homework now because your mom is taking you to a movie later.

The cerebrum has two halves, with one on either side of the head. Some scientists think that the right half helps you think about abstract things like music, colors, and shapes. The left half is said to be more analytical, helping you with math, logic, and speech. Scientists do know for sure that the right half of the cerebrum controls the left side of your body, and the left half controls the right side.

Next up is the cerebellum. The cerebellum is at the back of the brain, below the cerebrum. It's a lot smaller than the cerebrum at only 1/8 of its size. But it's a very important part of the brain. It controls balance, movement, and coordination (how your muscles work together). Because of your cerebellum, you can stand upright, keep your balance, and move around.

The brain stem is in charge of all the functions your body needs to stay alive, like breathing air, digesting food, and circulating blood.

Part of the brain stem's job is to control your involuntary muscles — the ones that work automatically, without you even thinking about it. There are involuntary muscles in the heart and stomach, and it's the brain stem that tells your heart to pump more blood when you're exercising or your stomach to start digesting your lunch. The brain stem also sorts through the millions of messages that the brain and the rest of the body send back and forth.

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