

Hello, class. So as you know, the nervous system is the body's communication system. It sends information to and from the brain and allows it to control the rest of the body and the different things that it might be able to do. It's made up of individual neurons, which are the cells that transmit information within the nervous system.

So looking at the actual structure, as we will today, we can see that the nervous system is divided into two basic parts. And that's the central nervous system and the peripheral nervous system. And we're going to go over today what elements of each of these there are, as well as what sorts of things they control, and how they function.

So first and most important to the nervous system, is the central nervous system. This is the area of the body, which acts as the control center for the rest of the nervous system. It collect information from the rest of the body, everything outside of it. And then sends out information and causes the body's various responses.

And the first and most recognizable part of the central nervous system is the brain. The brain is housed inside of your head and it's the central processing unit of the nervous system and the rest of the body. It's also where everything that we think of as being a person and being human is housed. So all the things that involve their personality and mental states in thinking and deciding and planning, all those things are housed directly within the brain. So as you can tell, it's the most important thing in psychology, and really, the most important organ in your body.

Now the spinal cord is a thick bundle of neurons that connects directly to the brain and runs along your back. And that's where we have our vertebrae, which protect the spinal cord. And this acts as essentially a sort of information superhighway. It conducts information to and from the brain to the rest of the body. So it's the sort of central, but also medial, sort of in the middle, allowing this information to occur.

Now when the spinal cord is damaged, it can lead to paralysis of different parts of the body. Because since it acts as a conductor for all of this information, then if that part is damaged, then none of those messages can be sent to those parts of the body. The spinal cord also acts as a control for certain reflexes, which don't go directly to the brain, but rather just go to the spinal cord and cause a quick involuntary response by the body.

Now as opposed to the central nervous system, the second part of our nervous system is the peripheral nervous system. And this is essentially the rest of the neurons that are within the body. So everything outside of the brain and spinal cord.

And these connect mainly to the spinal cord, but some of them also connect to the brain as well. And peripheral nervous system acts to control muscles and to carry sensory information from the outside world. It also controls

involuntary behaviors, like the functioning of our organs. So the peripheral nervous system tells your stomach when to digest and when to grumble, and that tells your heart how to beat, all those kinds of things.

And it also controls involuntary reactions to the outside world, things like sweating. So you can see that this peripheral nervous system acts as the sort of response mechanism, but only in direction from the central nervous system. So they have to work in conjunction to create all of the different thoughts, behaviours, and responses of the human body.