

The nervous system can be divided into two parts: the central nervous system and the peripheral nervous system. It is interesting to note that if these were laid end-to-end, the estimated length would be 100,000 KM. Our next system, the digestive system is closely linked to the cardiovascular system as on the one hand it requires about 30% of all cardiac output. In fact the cardiovascular system is not only responsible for delivering blood and oxygen, but also for transporting nutrients, hormones and waste throughout the body. And on the other, the digestive system separates nutrients from food before they can be distributed via the cardiovascular system. The central nervous system also controls our second system of the day, the cardiovascular system (also known as the circulatory system) which delivers blood and oxygen to the various parts of the body. If we take the heart for example which is a key organ in the cardiovascular system, we can think that it feeds the brain and as such the CNS with oxygen and blood, but at the same time it is the brain that controls the heart telling it how often to beat. The central nervous system is comprised of the brain and the spinal cord, and is responsible for processing the information which is sent to or received from the peripheral nervous system which is made up of the body's nerves. The CNS also sends information about infection so that the appropriate organ e.g. the spleen can fight certain types of bacteria. It is a common misconception that the brain is the largest organ in the human body, when in fact it comes in at third largest after the skin and the liver respectively. The heart acts as a pump which circulates the blood through the capillaries, arteries and veins. The brain processes information while the spinal cord acts as a delivery system for the information and impulses. Thus, as with the relationship between the CNS and the cardiovascular system, each system needs the other to work. Information transmitted through the central nervous system tells our bodies how to react in a certain situation, such as when we want to take a step the brain tells our knee joint to bend, or when we touch hot we receive information giving us a burning sensation. All of these are carried in the blood, of which an average adult has about 5 liters. The relationship between these two systems is quite complicated as each has an effect on the other.