**Organ systems developed and the service provided by them to ensure lifetime survival of „our mind**”

The human body consists of a number of organ systems that carry out specific functions necessary for everyday survival and for maintaining our living despite permanently changing conditions. The human mind is responsible for our thoughts, feelings, memory storage and general perception of the world. The anatomical site of our mind is the highly evolved nervous system, consisting of two parts. The central nervous system includes the brain and the spinal cord. The peripheral nervous system consists of cranial and spinal nerves that connect every other part of the body with the central nervous system. This complicated structure ensures the activity of the body's main control center, receiving and sending signals to other organs through neuronal signals and through circulating hormones. The nervous system controls and co-ordinates both voluntary actions (like conscious movement) and involuntary actions (like reflexes) of the body while adapting and reacting to environmental stimuli. The nervous system itself is on the top of all organ systems, while regulating and co-ordinating their functions but depending on all of them at a time. The highest human mental abilities (thinking, memory, learning, language, imagination etc.) are linked to the brain’s intact activity that needs lifelong support on physical and biochemical level from all organ systems of our body.

The physical shelter of the brain is provided by the skeletal system and the muscular system that both form a defense line against outer world’s traumas and help the adaption to it by movements. The essential nutrients, fluids, electrolytes, vitamins and oxygen are transported by the circulatory system to the nerve cells, after having been absorbed by the digestive system and taken in by the respiratory system. Brain is exceedingly sensitive to the lack of them. For example some brain cells start dying less than 5 minutes after their oxygen supply expires. The removal of waste products and CO2 from cellsis of the same importance and this is also provided by the circulatory system, involving also the urinary system as part of visceral organs, and the respiratory system too. The homeostasis of the body means the  steady internal physical and biochemical conditions including body temperature, fluid balance, pH-value, electrolytes, blood sugar-level etc. The regulation of homeostasis involves not only the visceral systems, but the [endocrine system](https://www.livescience.com/26496-endocrine-system.html) too that secrete hormones into the blood regulating various bodily functions, such as metabolism and growth. The immune and lymphatic system help to fight infections and maintain the fluid balance during lymphatic circulation. The system of special senses is essential to adaptation to environment via perception of different stimuli.

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