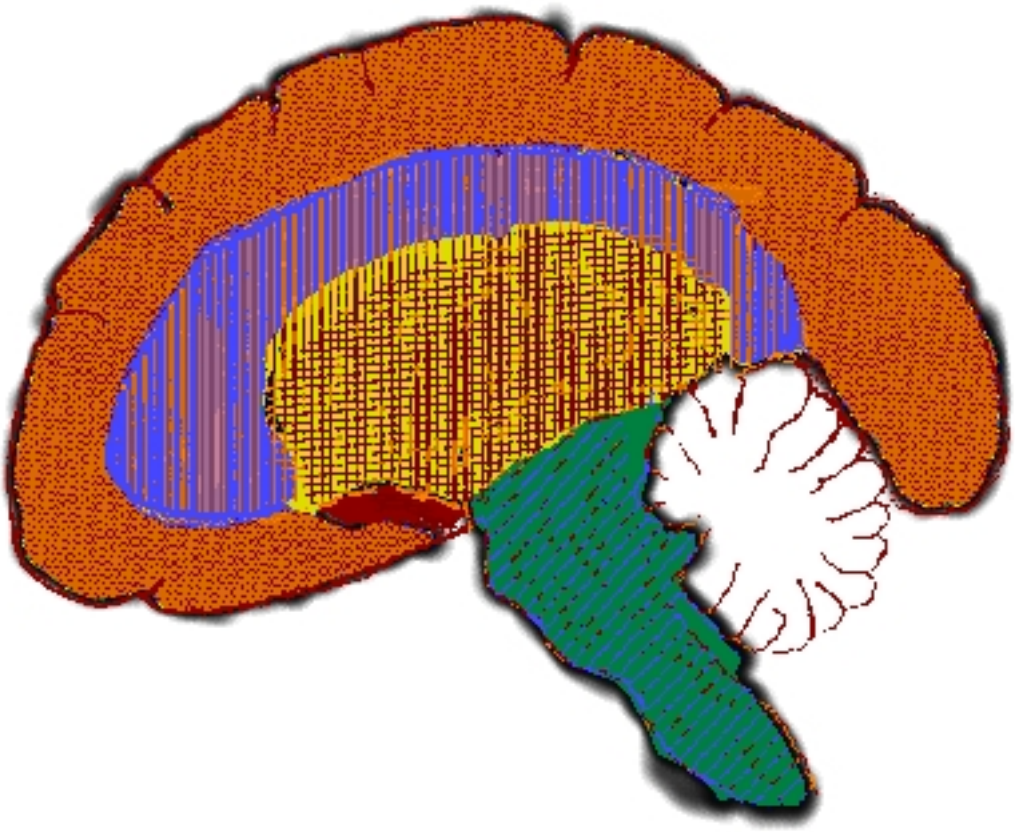
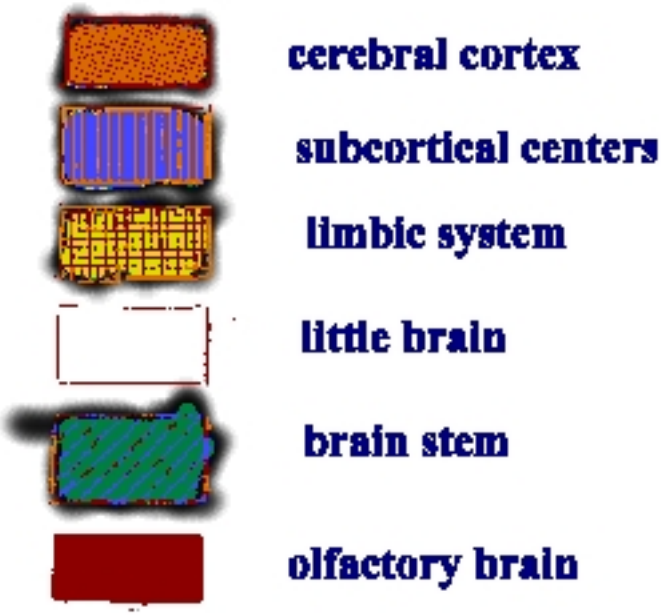
Our nervous system evolved from a simple string of nerve cells that could only bring about the simplest reflex movements such as e.g. in the lancelet. This tiny animal is about the simplest vertebrate and is not much more complicated than a worm. At the other end of this developmental line is the human with the most complicated nervous system. The most important principle underlying this development is that new elements are continually being added to the existing system; they do not displace it. Quite the reverse in fact, as the older elements are, as it were, manipulated by the newly evolved higher elements. Our nervous system consists of superimposed control circuits that continually make more complicated behavior possible.

A distinction is made between two subdivisions: the central nervous system (CNS), which consists of the brain and spinal cord, and the peripheral nervous system (PNS), that part of the nervous system outside the CNS which consists mainly of the nerves that extend from the CNS.

Another distinction made is of functional character, namely between the voluntary and the involuntary nervous systems. The first allows us to control our skeletal muscles consciously. The second, also called the autonomic nervous system (ANS), regulates all events not under conscious control: the activity of the internal organs, such as the heart, stomach, etc. The ANS itself has two parts: the sympathetic part that activates, and the parasympathetic part that de-activates.

The central nervous system is built up of the following parts:




cerebral cortex
subcortical centers
limbic system
little brain
brain stem
olfactory brain

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