

**Neural and Hormonal Systems**

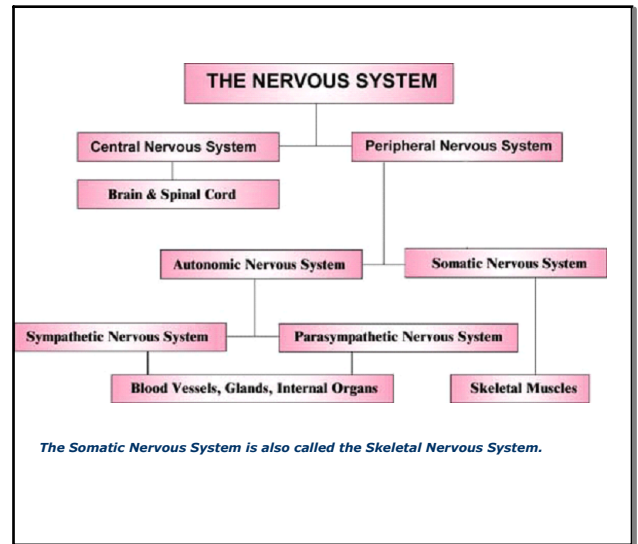
The Nervous System is composed two main systems:

1. Central Nervous System (CNS) - the brain and spinal cord.
2. **Peripheral Nervous System (PNS)** - This system connects the CNS to body's muscles and glands by means of **nerves** which are bundles of **sensory** and **motor neurons** (they carry incoming and outgoing information respectively) via **interneurons** which enable internal communication.

Its two main divisions are:

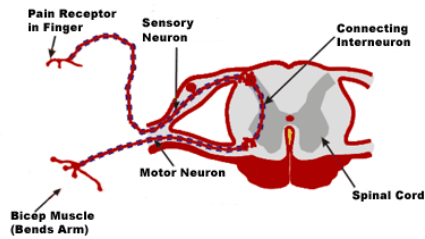
- a. The **skeletal (somatic) system**: This system controls voluntary movement of our skeletal muscles.
- b. The **autonomic nervous system (ANS)**: This system controls the muscles of our internal organs and our glands. It is further subdivided into the **sympathetic nervous system** (**arouses** the body for defense (increase heartbeat, dilating pupils, inhibit digestion etc.) and the **parasympathetic nervous system** (**calms** the body after stress).

Sep 23-11:43 AM



Sep 23-11:44 AM

A simple **reflex** is coordinated by the nervous system and is an automatic response to stimuli (like knee-jerk) involving messages from **sensory** to **interneuron** (Spinal Cord) to **motor** Neuron



Sep 23-11:44 AM