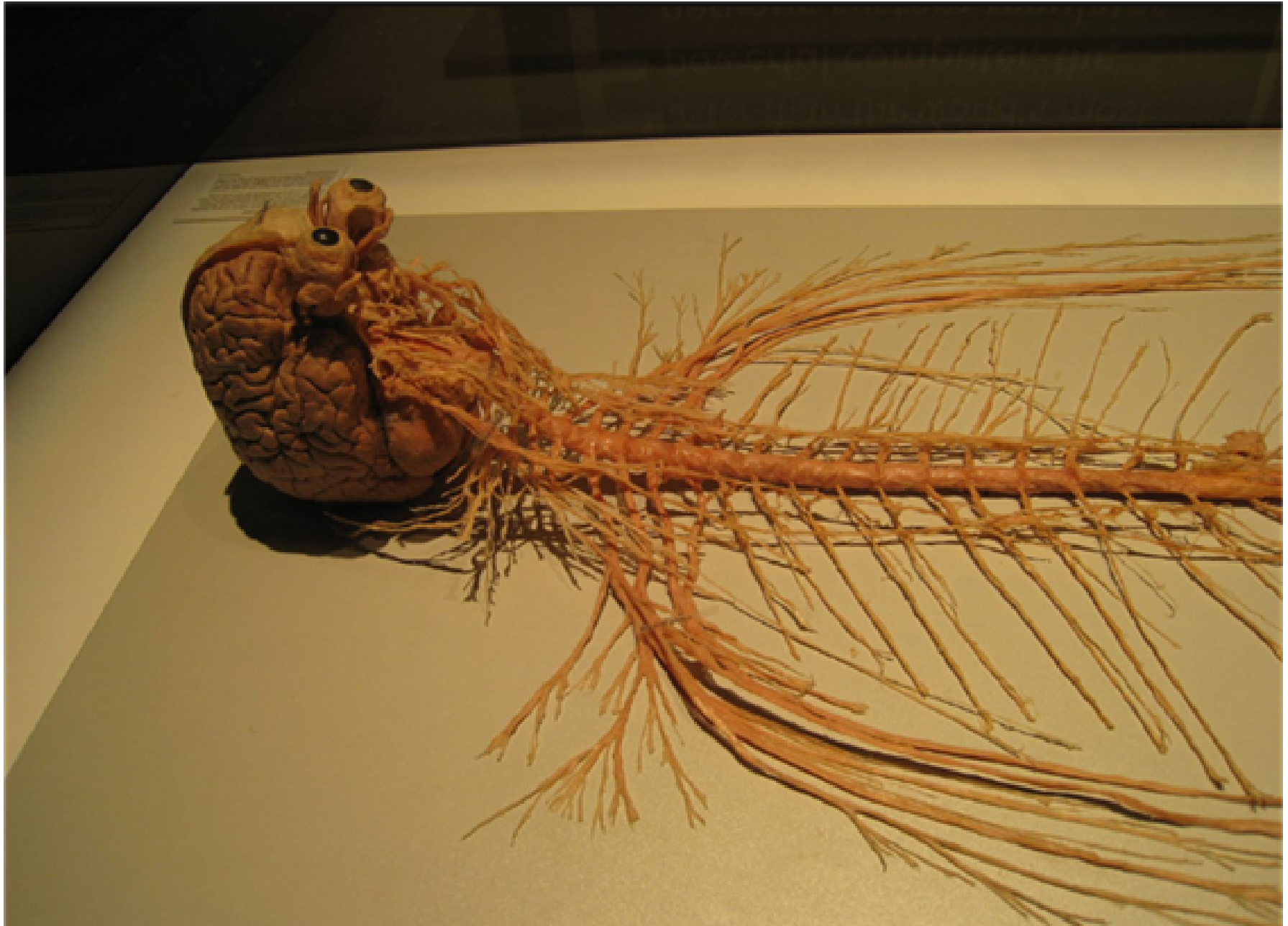
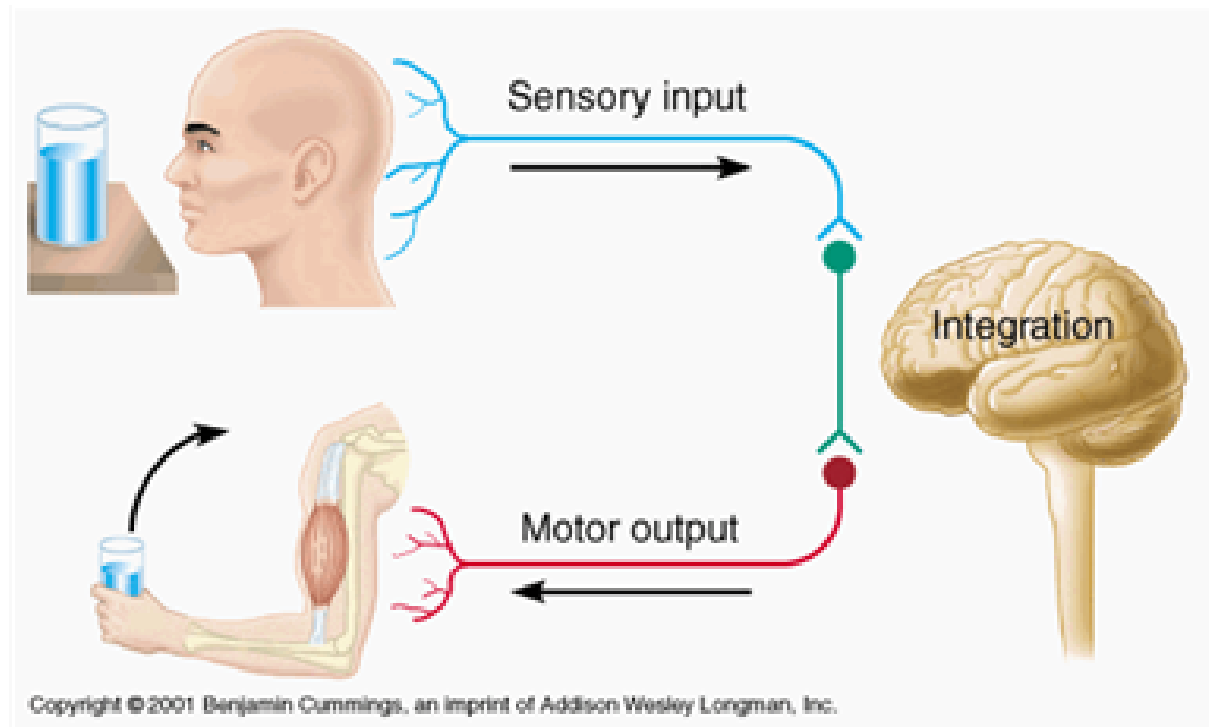


The Nervous System



The Nervous System

The nervous system maintains homeostasis by receiving **sensory information**, **integrating that information** and making an appropriate **response**.



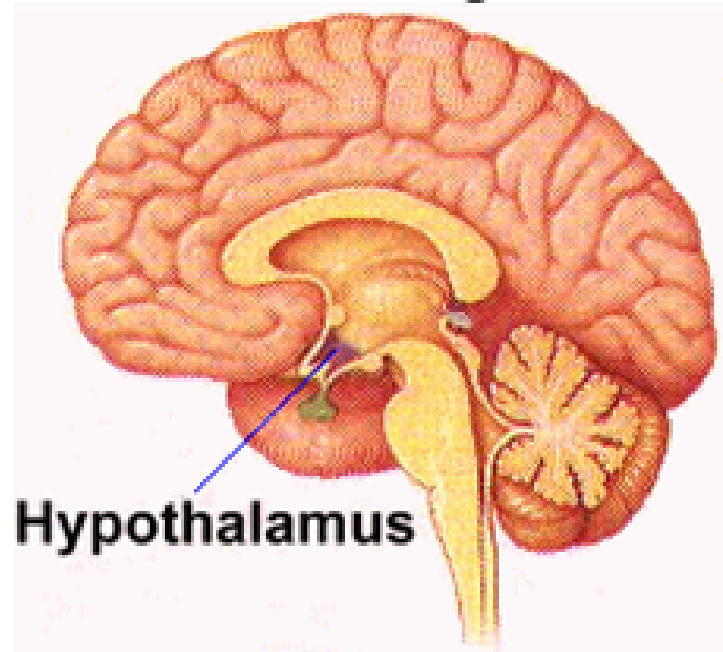
Functions of the Nervous System

- Sensory Input - response to external and internal stimuli by generating nerve signals that travel to the brain and spinal cord (temperature sensors in the skin signal to the brain that the air surrounding the body is cold = I am cold)



Functions of the Nervous System

- Integration - brain and spinal cord interpret data received from sensory receptors all over the body and signal the appropriate nerve response (temperature receptors is sent to the hypothalamus which is the part of the brain that controls temperature = "I am cold" message sent to brain)



Functions of the Nervous System

- Motor Output - nerve impulses to the brain and spinal cord go to the effectors like muscles glands and organs (in our example muscles contract and shivering occurs)



The Nervous System

Introductory Video



<http://www.youtube.com/watch?v=sjyl4CmBOA0>

There are two divisions of the nervous system, but they work together.

1. The Central Nervous System
(CNS)
2. The Peripheral Nervous System
(PNS)

Central Nervous System (CNS)

- Consists of Brain and Spinal Cord
- Has a central location - lies in the midline of the body



Peripheral Nervous System (PNS)

- Divided into two divisions afferent (Sensory) and efferent (motor)
- includes all the cranial and spinal nerves
- Nerves project out from the central nervous system

