

Nervous System Overview

1. Outline the organization of the nervous system as taught in your notes.
2. sense of smell is cranial nerve # ____: _____
3. sense of sight is cranial nerve # ____: _____
4. sense of touch on your face is cranial nerve # ____: _____
5. sense of hearing is cranial nerve # ____: _____
6. There are _____ pairs of spinal nerves and _____ pairs of nerves that come off the brain (also known as cranial nerves).

Answers: Nervous System Overview

1.

Central Nervous System – brain and spinal cord **Peripheral Nervous System – cranial nerves & spinal nerves**

- Nerves contain axons that are either:
 - **Sensory** (afferent) or motor (efferent)
 - Sensory axons bring information about:
 - Smell
 - Sight
 - Hearing
 - Taste
 - Touch/Proprioception/Stretch/Pain/Temperature
 - Motor neurons are either:
 - Voluntary (**somatic**) or Involuntary (Autonomic)
 - Voluntary motor neurons control skeletal muscles
 - Involuntary motor neurons control smooth muscle, cardiac muscle, or glands
 - Involuntary motor neurons can either be:
 - **Sympathetic** (fight or flight)
 - **Parasympathetic** (rest and digest)

Another way to organize #1: Every nerve fiber must be one of the following types:

- **Afferent**
 - **Sensory**
 - **Efferent**
 - **sympathetic autonomic motor**
 - **parasympathetic autonomic motor**
 - **somatic motor**
2. sense of smell is cranial nerve # I : Olfactory
 3. sense of sight is cranial nerve # II : Optic
 4. sense of touch on your face is cranial nerve # V : Trigeminal
 5. sense of hearing is cranial nerve # VIII : Vestibulocochlear
 6. There are 31 pairs of spinal nerves and 12 pairs of nerves that come off the brain (also known as cranial nerves).