**Equine Nervous System**

The Equine Nervous System is the most complex system in the body. It controls all of the other equine body systems - consisting of the brain, spinal cord, and sensory and motor nerves. It is also the system that feels pain or other sensations.

The equine nervous system functions through three main groups:
- Central Nervous System
- Peripheral Nervous System
- Autonomic Nervous System

**Central Nervous System**

The Central Nervous System is the center of all nervous control. It consists of the brain and spinal cord.

The brain is located in the cranial cavity. And the spinal cord is located in the vertebral/spinal column.

You could say that the Central Nervous System is like the horse’s computer.

**Peripheral Nervous System**

The Peripheral Nervous System governs the nerves that are located outside of (or peripheral to) the Central Nervous System. It consists of the Sensory Nerves and Motor Nerves.

Sensory Nerves carry information from the body parts to the Central Nervous System.

Motor Nerves carry information from the Central Nervous System to the body parts.

**Autonomic Nervous System**

The Autonomic Nervous System is part of the Peripheral Nervous System. It controls the involuntary (or automatic) systems such as the circulatory system (heart), respiratory system (lungs), etc.

The Autonomic Nervous System has two major systems: Sympathetic and Parasympathetic.

**Sympathetic Nervous System:**

The Sympathetic Nervous System is the one that governs the "Fight" or "Flight" reaction in a horse. It alerts the horse to danger, stress, or other unpleasant circumstances. The sympathetic nervous system will then send messages to the brain to increase the heart rate, blood pressure, etc to get the horse ready for flight.

**Parasympathetic Nervous System:**

The Parasympathetic Nervous System is the one that governs more pleasant times. These are the times when a horse is resting, sleeping, digesting, and it also governs the body’s elimination system. When a horse is really relaxed, it is in it's parasympathetic state. This is great since being relaxed helps to increase blood flow which helps the horse to have a healthier immune system and increases healing.

The Parasympathetic Nervous System is what we are trying to influence by applying massage and other alternative equine therapies. This is the state in which endorphins are released into your horse's brain. The parasympathetic nervous system is the reason why equine therapies help to increase healing.