

## Simple Version: 2 Branches of the Nervous System

Survival is based on 2 key components of the **Autonomic Nervous System (ANS)**

**Sympathetic Nervous System (SNS)**-The “fight and flight” survival system. Information flows from our body to our brain and vice versa through this system. A potent physiological system is stimulated through mobilization and action to escape a threat or engage in combat. This is a state of heightened arousal. The SNS is a complex system connected to nerve fibers throughout the body, redirecting oxygen rich blood flow to necessary organs and muscles. In order to escape or fight, the body releases adrenal and insulin into the blood for added energy. Most of the uncomfortable physiological symptoms occur because of the redirection of blood flow and the release of adrenaline, insulin, and cortisol by the adrenal system.

Primary Physiological Responses:

- Increased Heart Rate
- Pupils Dilate
- Bronchodilation- more air flow to lungs
- Constriction of blood flow to digestive system decreased gut mobility.
- Constriction of blood flow to non-essential muscles
- Increase blood flow to essential muscles.
- Inhibition of saliva

**Parasympathetic Nervous System (PNS)**-The “rest and digest” survival system. This is the physiological system of recovering from the stress response of the SNS activation.

Deactivation occurs in the system. The responsibility of the vagus nerve is to send safety signals from the brain to the body and the body to the brain. The desire and ability to connect to others is more able to come back online once when the parasympathetic branch of the vagus nerve is engaged.

Primary Physiological Response:

- Decreased Heart Rate
- Pupils Constrict
- Bronchoconstriction-less airflow to the lungs.

- Blood flow returns to digestive organs, increased gut mobility.
- Increased salivation
- Increased blood flow to non-essential muscles and organs

# NERVOUS SYSTEM

