

Chapter 36- The Nervous System

- I. 36.1 The nervous system
 - A. The eleven organ systems of the human body work together to maintain homeostasis
 - B. The Nervous system controls and coordinates functions throughout the body and responds to internal and external stimuli
 - C. A nerve impulse begins when a neuron is stimulated by another neuron or by its environment
 - D. Divisions of the nervous system
 1. The central nervous system relays message, processes information, and analyzes information
 2. The sensory division of the peripheral nervous system transmits impulses from sense organs to the central nervous system. The motor division transmits impulses from the central nervous system to the muscles and glands
- II. 36.2 The senses
 - A. There are five general categories of sensory receptors: pain receptors, thermo-receptors, mechanoreceptors, chemo-receptors, and photoreceptors
- III. 36.3 The effects of drugs
 - A. Stimulants increase heart rate, blood pressure, and breathing rate. In addition, stimulants increase the release of neurotransmitters at some synapses in the brain
 - B. Depressants slow down heart rate and breathing rate, lower blood pressure, relax muscles, and relieve tension
 - C. Cocaine causes the sudden release of neurotransmitter in the brain called dopamine
 - D. Opiate mimic natural chemicals in the brain known as endorphins, which normally help to overcome the sensations of pain
 - E. Alcohol is a depressant, and even small amounts of alcohol slow down the rate at which the nervous system functions.