Anatomy and Physiology I

Learning Guide: Autonomic Nervous System

Overview – Along with the spinal cord, a clear understanding of the autonomic nervous system structure and function will be of great importance in your clinical instruction. There is an important HANDOUT to accompany your study of this relatively short unit.

Learning Objectives

- Describe the organization of the autonomic nervous system.
- Compare and contrast preganglionic and postganglionic neurons in sympathetic and parasympathetic nervous systems relative to the viscera they innervate.
- Describe how the sympathetic and parasympathetic nervous systems work together in maintaining homeostasis during times of rest and how it responds during times of stress.
- Describe how a "whole-body response" can be generated and maintained during a "fight and flight response."

Getting Started – Having a visual representation of what is being discussed will be very important. A HANDOUT on the autonomic nervous system will provide a visual approach to understanding and applying what is taught to aid in this.

Exam – The autonomic nervous system will be coupled with the brain and spinal cord (and possibly nervous tissue in rare circumstances). Matching questions will be used for assessment where the options will be:

- "S" for sympathetic
- "P" for parasympathetic
- "N" for neither sympathetic nor parasympathetic
- "B" for both sympathetic and parasympathetic.

Details will be described in the videos. There are significant points related to this part.

Final Point – The autonomic nervous system can be considered a capstone in your understanding of the central nervous system. You will find that a firm grasp of this topic will provide a strong foundation for future discussions in your clinical instruction.