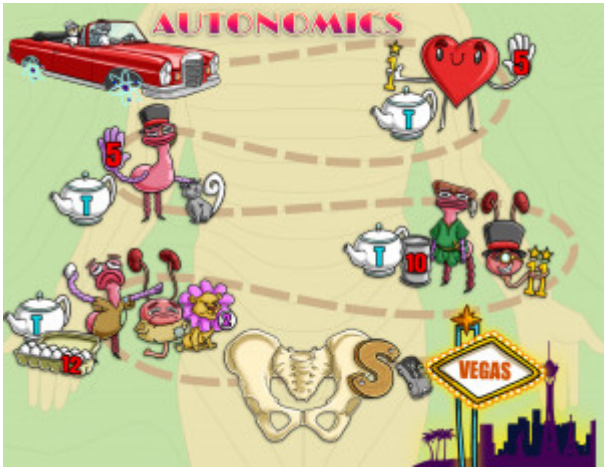
# Autonomics

The autonomic nervous system is a part of the peripheral nervous system. It is made up of three parts. These are the sympathetic, parasympathetic, and enteric nervous systems. The sympathetic and parasympathetic are of the most importance for medical board examinations. The autonomic nervous system controls unconscious processes, regulating functions like breathing and blood pressure. The sympathetic nervous system is often referred to as “fight or flight”. The parasympathetic nervous system can be thought of as “rest and digest”.




PLAY PICMONIC

## Sympathetic Nervous System

**T1-5 Heart**
(T) Tea (1) Wand - (5) Hand on Heart
The autonomic sympathetic innervation of the heart corresponds with spinal segments T1-T5 therefore viscerosomatic and somatovisceral reflexes that occur will be in this region.

**T5-9 Upper GI Tract**
(T) Tea (5) Hand - (9) Lives-cat on Upper-class GI-guy
The autonomic sympathetic innervation of the upper gastrointestinal tract (UGI) corresponds with spinal segments T5-T9. The upper gastrointestinal tract begins at the mouth and runs all the way to the small intestine to include portions of the duodenum and pancreas. The nerve for the UGI tract is the greater splanchnic nerve, and the ganglion is the celiac ganglion. Viscerosomatic and somatovisceral reflexes that occur in the UGI tract will be in the T5-T9 segments.

**T10-11 Middle GI Tract and Upper Genitourinary Tract**
(T) Tea (10) Tin - (11) Double Wands on Middle-ages GI-guy and Upper-class Urinary-tract
The middle gastrointestinal tract (MGI) starts with pieces of the duodenum and pancreas and extends down the GI tract to the proximal 2/3rds of the transverse colon. The spinal cord sends impulses to the MGI with the lesser splanchnic nerve, and the corresponding ganglion is the superior mesenteric ganglion. The upper genitourinary tract shares T10-T11 with the MGI tract in the aspect of sympathetic innervation. The UGU comprises the kidneys and the upper ureter. The UGU is similar to the MGI and corresponds with the superior mesenteric ganglion.

**T12-L2 Lower GI Tract and Lower Genitourinary Tract**
(T) Tea (12) Dozen to (L) Lion (2) Tutu on Lower-class GI-guy and Lower-class Urinary-tract
The lower gastrointestinal tract is composed of the distal 1/3rd of the colon and extends all the way to the rectum. It receives input from spinal segments T12-L2. The LGI is innervated by the least splanchnic nerve via the inferior mesenteric ganglion. The LGI shares spinal segments with the lower genitourinary tract (LGU). The LGU contains the distal half of the ureters and the bladder.<br>

## Parasympathetic Nervous System

**Pelvic Splanchnic Nerves**
Pelvis S-plank
The pelvic splanchnic nerve is a parasympathetic nerve that originates in the sacrum and innervates some structures below the diaphragm. The pelvic splanchnic nerve fills in the holes left by the vagus nerve. The pelvic splanchnic nerve innervates all organs in the reproductive system (with the exception of the ovaries/testes), the LGI and the LGU.<br>

**Vagus Nerve**
Vegas-sign
The vagus nerve is a parasympathetic nerve that originates from the brain and causes parasympathetic input to all the viscera above the diaphragm. The vagus nerve also conveys parasympathetic activity to much of the viscera below the diaphragm including, but not limited to: the UGI, the MGI, the ovaries/testes and the UGU.<br>