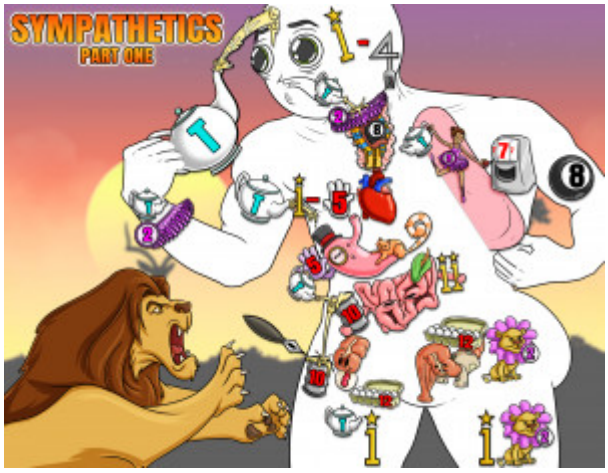
Sympathetics I

The sympathetic nervous system originates from the thoracic and lumbar regions of the spinal cord and is high yield for the COMLEX. The superior most portion of the thorax is T1 and the sympathetic segments extend all the way down to L3. Understanding the relationship between the autonomic nervous system and the musculoskeletal system is important because many ailments are caused or worsened by reflexes between the two. Osteopathic manipulative treatment directed at the sympathetics is intended to interrupt reflex cycles and normalize sympathetic tone.



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Above the Diaphragm

T1-4 Head and Neck
Tea (1) Wand - (4) Fork on Head and Neck
Most of the sympathetic input to the head and neck originates from the T1-T4 spinal segments. This sympathetic input can decrease secretion from various glands and cause mydriasis.

T1-5 Heart
Tea (1) Wand - (5) Hand on Heart
The sympathetic innervation of the heart originates from the spinal segments T1-T5, therefore viscerosomatic and somatovisceral reflexes that occur will be in this region. Sympathetic input causes increased heart rate and contractility.

T2-7 Respiratory System
Tea (2) Tutu - Lucky (7) Slot-machine on Lungs
The sympathetic innervation of the respiratory system originates from the spinal segments T2-T7. Activation of these nerves causes bronchodilation via smooth muscle relaxation.

T2-8 Esophagus
Tea (2) Tutu - (8) Ball on Sarcophagus
The sympathetic innervation of the esophagus originates from the spinal segments T2-T8. A person with acid reflux, for example, can be expected to have somatic dysfunction in these segments.

Extremities

T2-8 Arms
Tea (2) Tutu - (8) Ball on Arms
The sympathetic innervation of the upper extremity originates from the T2-T8 spinal cord. Upper extremity problems, such as fracture, infection, or sprain/strain, can cause reflex somatic dysfunction at these levels.

T11-L2 Legs
Tea (11) Double-wand - Lion (2) Tutu on Legs
The sympathetic innervation of the lower extremity originates from the T11-L2 level of the spinal cord. Injuries and diseases affecting the lower extremities, such as cellulitis, sprain, or fracture, can cause somatic dysfunction in these segments.

Gastrointestinal

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T5-9 Upper GI Tract

Tea (5) Hand to (9) Lives-cat on Upper-class GI-guy

The sympathetic innervation of the upper GI tract, the embryological foregut, corresponds with spinal segments T5-T9. This proximal part of the gastrointestinal tract begins with the stomach and includes parts of the duodenum and pancreas. Innervation is routed through the celiac ganglion. Diseases such as gastritis, pancreatitis, and celiac may manifest somatic findings in the T5-T9 area.

T10-11 Middle GI Tract

Tea (10) Tin - Double (1) Wands on Middle-ages GI-Guy

The sympathetic innervation of the middle GI tract, the embryological midgut, corresponds with spinal segments T10-T11. The middle portion of the gastrointestinal tract includes the distal aspect of the duodenum and pancreas. It also includes the jejunum, ileum, and portions of the large intestine including the ascending colon and proximal 2/3rds of the transverse colon. Innervation goes through the superior mesenteric ganglion. Diseases such as Crohn's affecting the terminal ileum may cause somatic dysfunction in T10-T11.

T10-12 Appendix/Cecum

Tea (10) Tin - (12) Dozen on Appendix-pen

The sympathetic innervation of the appendix originates at the spinal segments T10-T12. It also has a Chapman's point at the tip of the twelfth rib.

T12-L2 Lower GI Tract

Tea (12) Dozen - Lion (2) Tutu on Low-class GI-guy

The sympathetic innervation of the lower GI tract, the embryological hindgut, corresponds with spinal segments T12-L2. This most distal part of the GI tract begins at the distal 1/3rd of the transverse colon and includes the descending colon, the sigmoid colon and the rectum. Innervation goes through the inferior mesenteric ganglion. Diseases such as diverticulitis can cause viscerosomatic reflex at these levels.

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