



MG31332 | HUMAN SYMPATIC NERVOUS SYSTEM

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Anatomical model representing the sympathetic nervous system, enlarged to two-thirds of actual size and mounted on a relief plate. Demonstrates the nerve branches of the thorax, abdomen, and pelvis, illustrating the sympathetic nervous system and its functions in response to stressful situations.

Applications:

Ideal for studying and demonstrating the sympathetic nervous system, its functions, and its relationship with the organs of the thorax, abdomen, and pelvis. Suitable for use in anatomy and physiology classes and for training healthcare professionals.

Technical Advantages:

Detailed representation of the sympathetic nervous system and its nerve branches.
Demonstration of the sympathetic and parasympathetic nervous systems.

3D Technology and Augmented Reality:

Our anatomical models offer an innovative visual complement through informative cards that activate 3D models viewable in augmented reality (AR). This exclusive interactive platform stimulates learning, allowing for comparative analysis of anatomical structures and offering opportunities for continuing education in anatomy, physiology, and pathophysiology.

Technical Specifications:

- * Scale: 2/3 of actual size
- * Mounted on a relief plate

Main Structures:

Oculomotor nerve: The third cranial nerve, responsible for the innervation of most extraocular muscles that control eye movements, as well as controlling pupil constriction and upper eyelid elevation.

Ciliary ganglion: A parasympathetic ganglion located in the orbit, which receives fibers from the oculomotor nerve and sends post-ganglionic fibers to the ciliary muscle (controls visual accommodation) and to the sphincter pupillae muscle (controls pupil constriction).



Abducens nerve: The sixth cranial nerve, responsible for the innervation of the lateral rectus muscle of the eye, which allows abduction movement (movement of the eye outwards).

Ophthalmic nerve: The first division of the trigeminal nerve (V), responsible for the sensory innervation of the orbit, eyelids, forehead, nose, and part of the scalp.

Trochlear nerve: The fourth cranial nerve, responsible for the innervation of the superior oblique muscle of the eye, which assists in internal rotation, depression, and abduction of the eye.

Maxillary nerve: The second division of the trigeminal nerve (V), responsible for the sensory innervation of the maxilla, upper teeth, palate, nose, upper lip, and part of the face.

Pterygopalatine ganglion: A parasympathetic ganglion located in the pterygopalatine fossa, which receives fibers from the facial nerve and sends post-ganglionic fibers to the lacrimal gland, nasal and palatine glands.

Mandibular nerve: The third division of the trigeminal nerve (V), responsible for the sensory innervation of the mandible, lower teeth, lower lip, chin, and part of the tongue, as well as innervating the muscles of mastication.

Chorda tympani nerve: A branch of the facial nerve (VII) that carries gustatory fibers from the anterior two-thirds of the tongue and pre-ganglionic parasympathetic fibers to the submandibular ganglion.

Facial nerve: The seventh cranial nerve, responsible for the innervation of the muscles of facial expression, as well as carrying gustatory fibers from the anterior two-thirds of the tongue and parasympathetic fibers to the lacrimal, submandibular, and sublingual glands.

Other structures can be verified directly on the physical piece or in the interactive 3D model.

Customizable Skin Tones:

This anatomical model offers the option of choosing between three skin tones to better represent human diversity and meet different educational and clinical needs. It is possible to choose between light skin, intermediate tone, and dark skin, providing greater realism and inclusion during training and demonstrations.

Smart Tags:

Designed to provide comprehensive training in the healthcare field, with interactive simulations covering Heart and Abdominal exams. This solution assists in the development of diagnostic skills in different clinical scenarios, allowing professionals and students to explore and improve their skills with greater safety and precision.



Heart sound recognition: Recognize 23 unique heart sounds with different patient postures and tools.

- Apex, Normal S1 S2, Supine, Bell
- Apex, Split S1, Supine, Bell
- Apex, S4, LLD, Bell
- Apex, Mid Systolic Click, Supine, Bell
- Apex, S3, LLD, Bell
- Apex, Early Systolic Murmur, Supine, Bell
- Apex, Mid Systolic Murmur, Supine, Bell
- Apex, Late Systolic Murmur, Supine, Bell
- Apex, Holosystolic Murmur, Supine, Bell
- Apex, Systolic Click & Late Systolic Murmur, LLD, Bell
- Apex, S4 & Mid Systolic Murmur, LLD, Bell
- Apex, S3 & Holosystolic Murmur, LLD, Bell
- Apex, OS & Diastolic Murmur, LLD, Bell
- Aortic, Normal S1 S2, Sitting, Bell
- Aortic, Systolic Murmur & Absent S2, Sitting, Bell
- Aortic, Early Diastolic Murmur, Sitting, Bell
- Aortic, Systolic & Diastolic Murmur, Sitting, Bell
- Pulmonary, Single S2, Supine, Diaphragm
- Pulmonary, Split S2 Persistent, Supine, Diaphragm
- Pulmonary, Split S2 Transient, Supine, Diaphragm
- Pulmonary, Ejection Systolic Murmur & Transient Split S2, Supine, Diaphragm
- Pulmonary, Split S2 & Ejection Systolic Murmur, Supine, Diaphragm
- Pulmonary, Ejection Systolic Murmur & Single S2 & Ejection Click, Supine, Diaphragm

Abdominal sound diagnostics:

- Normal
- Normal Borborygmi
- Normal Gurgling
- Diarrhea
- Hyperactive
- Hypoactive
- Obstruction
- Absent

Virtual Patient Monitor: Provides an immersive and realistic training environment for healthcare students. It allows instructors to customize parameters for various vital signs, empowering students to interpret signals, develop critical thinking, and enhance their clinical reasoning skills through realistic scenarios.

Customizable Vital Signs



- Blood Pressure
- SpO2
- Heart Rate

ECG Interpretation: Train on 18 diverse ECG scenarios, including: Atrial Fibrillation, Ventricular Tachycardia and Heart Blocks. The monitor also simulates synchronized pulses with ECG for truly realistic cardiology training.

ECG Patterns

- Sinus Rhythm
- Atrial Extrasystole
- Atrial Flutter
- Atrial Fibrillation
- Paroxysmal Supraventricular Tachycardia (PSVT)
- Ventricular Extrasystole
- Ventricular Tachycardia (VT)
- Ventricular Fibrillation (VF)
- First-Degree Atrioventricular Block (AVB)
- Second-Degree Atrioventricular Block
- Third-Degree Atrioventricular Block (Complete Block)
- Long QT Syndrome
- ST Segment Elevation
- ST Segment Depression
- T Wave Inversion
- Left Ventricular Hypertrophy (LVH)
- Right Ventricular Hypertrophy (RVH)
- Wolff-Parkinson-White Syndrome (WPW)

Breathing Patterns

- Normal
- Dyspnea
- Apnea
- Cheyne-Stokes
- Biot
- Kussmaul

About the Anatomical Models:

They are developed with resin replication technology, addressing the scarcity of natural anatomical pieces for teaching and research. They present all the essential morphological characteristics with excellent cost-benefit, resistance, manual painting, and numbering for precise identification of structures.



List of all visible structures:

- Oculomotor nerve
- Ciliary ganglion
- Abducens nerve
- Ophthalmic nerve
- Trochlear nerve
- Maxillary nerve
- Pterygopalatine ganglion
- Mandibular nerve
- Chorda tympani nerve
- Facial nerve
- Submandibular ganglion
- Superior laryngeal nerve
- Superior cervical sympathetic ganglion
- Vagus nerves
- Middle cervical sympathetic ganglion
- Cervicothoracic ganglion
- Intercostal nerve
- Thoracic sympathetic
- Superior cervical cardiac nerve
- Middle cervical cardiac nerve
- Cardiac plexus
- White ramus
- Gray ramus
- Esophageal plexus
- Greater splanchnic nerve
- Lesser splanchnic nerve
- Celiac plexus
- Abdominal aortic plexus
- Superior mesenteric plexus
- Hypogastric plexus
- Vesical plexus
- Prostatic plexus
- Rectal plexus
- 2nd sacral nerve
- 3rd sacral nerve
- 4th sacral nerve