



**MG36904 | THORACIC CAVITY LARYNGEAL
CARDIOPULMONARY, 16 PARTS**



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This life-size anatomical model offers a highly detailed and interactive representation of the human torso, which can be disassembled into 16 parts for in-depth study. With 110 specifically numbered regions, it includes removable components such as the lungs (the right in 3 parts and the left in 2), the heart (with cardiac atria in 6 parts), Thymus, Larynx, Trachea, Thyroid, Sternum, and Ribs. Additionally, it features non-removable but incredibly detailed representations of the Vertebral Column, Deep Spinal Muscles, Spinal Discs, Liver, Stomach, and Large Intestine, providing a comprehensive view of the thoracic and upper abdominal anatomy.

Applications:

Ideal for higher education institutions, clinics, and training centers seeking a robust tool for learning and support in human anatomy. It is excellent for encouraging hands-on learning, allowing students and professionals to engage in comparative analysis of anatomical models, comparing and contrasting the structure of individual organs. This initiative also offers a platform for continuing education, enhancing knowledge in anatomy, physiology, and pathophysiology.

Technical Differentiators:

The model stands out for being life-size and disassemblable into 16 parts, facilitating internal visualization and manipulation of structures. The numbering of 110 specific regions allows



for precise identification and detailed study. The inclusion of segmented organs, such as the lungs and heart, and the incredibly detailed representation of non-removable structures, ensure a complete and immersive learning experience.

3D Technology and Augmented Reality:

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

Technical Specifications:

- * Scale: Life-size
- * Number of parts: 16
- * Numbering: 110 specific regions

Main Structures:

Heart: Hollow muscular organ responsible for pumping blood throughout the body, essential for blood circulation and the supply of oxygen and nutrients to cells.

Lungs: Spongy organs located in the chest cavity, vital for breathing, where the gas exchange of oxygen and carbon dioxide between air and blood occurs.

Larynx: Cartilaginous structure in the throat that contains the vocal cords, fundamental for phonation and for directing air to the trachea and food to the esophagus.

Trachea: Cartilaginous tube that extends from the larynx to the bronchi, serving as the main pathway for transporting air into and out of the lungs.

Thyroid gland: An endocrine gland located in the neck, responsible for producing hormones that regulate metabolism, growth, and body development.

Sternum: Flat and elongated bone located in the center of the chest, to which the ribs connect, forming the front part of the rib cage and protecting vital organs such as the heart and lungs.

Vertebral Column: Central axis of the skeleton, composed of vertebrae, which provides support to the body, protects the spinal cord, and allows for a wide range of movements.

Liver: The largest internal organ of the body, located in the upper right abdomen, with essential functions such as detoxification, bile production for digestion, and nutrient metabolism.



Stomach: J-shaped organ of the digestive system, located in the upper abdomen, responsible for initiating protein digestion and storing food before sending it to the small intestine.

Large Intestine: Last portion of the gastrointestinal tract, responsible for the absorption of water and electrolytes, formation, and storage of feces before their elimination.

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

Smart Tags:

Designed to provide comprehensive training in the healthcare field, with interactive simulations covering Retina, Pulse, Heart, and Lung exams. This solution assists in the development of diagnostic skills in different clinical scenarios, allowing professionals and students to explore and enhance 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

Retinal exams: Simulate 39 retinal conditions, from normal and diabetic retinopathy (various stages) to rare diseases like retinitis pigmentosa and macular degeneration.



- Normal
- Tessellated Fundus
- Large Optic Disc Cupping
- DR1 (Diabetic Retinopathy - Stage 1)
- DR2 (Diabetic Retinopathy - Stage 2)
- DR3 (Diabetic Retinopathy - Stage 3)
- Branch Retinal Vein Occlusion (BRVO)
- Central Retinal Vein Occlusion (CRVO)
- Retinal Artery Occlusion (RAO)
- Rhegmatogenous Retinal Detachment
- Central Serous Chorioretinopathy (CSCR)
- Vogt-Koyanagi-Harada Disease (VKH)
- Maculopathy
- Epiretinal Membrane (ERM)
- Macular Hole (MH)
- Pathological Myopia
- Possible Glaucoma
- Optic Atrophy
- Severe Hypertensive Retinopathy
- Optic Disc Swelling and Elevation
- Displaced Optic Disc
- Congenital Optic Disc Anomaly
- Retinitis Pigmentosa
- Bietti's Crystalline Dystrophy
- Peripheral Retinal Degeneration and Tear
- Myelinated Nerve Fibers
- Particles in Vitreous
- Fundus Neoplasia
- Massive Hard Exudates
- Yellowish-White Spots (Flecks)
- Cotton Wool Spots
- Vessel Tortuosity
- Chorioretinal Atrophy - Coloboma
- Preretinal Hemorrhage
- Fibrosis
- Laser Marks
- Silicone Oil in Eye
- Blurred Fundus Without PDR (Proliferative Diabetic Retinopathy)
- Blurred Fundus With Suspected PDR (Proliferative Diabetic Retinopathy)

Lung sound recognition: Recognize 15 lung sounds and breathing pattern analysis.

- Agonal Breathing
- Asthma Wheezing



- Bronchial
- Bronchovesicular
- Crackles - Coarse
- Crackles - Fine
- Crackles - Pulmonary Edema
- Crackles - Bronchiectasis
- Death Rattle
- Inspiratory Stridor
- Pleural Rubs
- Rhonchi - Low-Pitched Wheezes
- Vesicular - Normal
- Wheeze
- Wheeze-COPD

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 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:

- Sternum
- Pericardial sac
- Thyroid gland
- Thyroid cartilage
- Right vertebral vein
- Clavicle
- Costal cartilage
- Anterior segment (III)
- Gallbladder
- Liver
- Diaphragm
- Stomach
- Transverse colon
- Jejunum
- Lateral basal segment (IX)
- Posterior basal segment (X)
- Thoracolumbar fascia
- L1
- 12th rib
- T12
- T11



- Lateral basal segment (IX)
- Superior segment (VI)
- Levator costarum muscle
- Semispinalis cervicis muscle
- C7
- T1
- T2
- Apical segment (II)
- Superior lingular segment (IV)
- Medial basal segment (VII)
- Anterior basal segment (VIII)
- Internal oblique muscle
- Intercostal muscle
- Middle scalene muscle
- Posterior scalene muscle
- Apical segment (I)
- Posterior segment (II)
- Superior segment (VI)
- Medial basal segment (VII)
- Anterior basal segment (VIII)
- Trachea
- Right vagus nerve
- Left vagus nerve
- Phrenic nerve
- External jugular vein
- Internal jugular vein
- Xiphoid process
- Vertebrae
- Cricothyroid membrane
- Spinal cord
- Spinal ganglion
- Thyroid cartilage lamina
- Thyrohyoid membrane