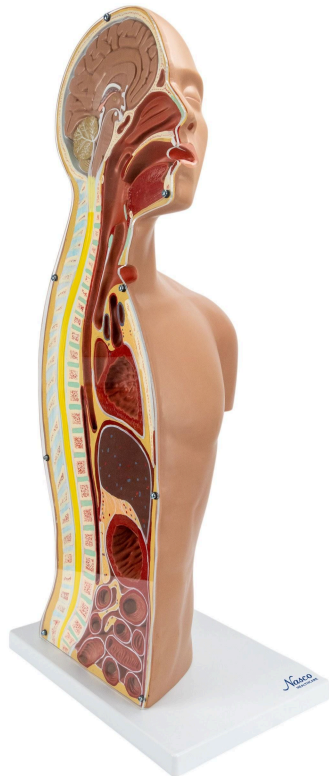


## MG32013 | NASOGASTRIC TORSO TRAINING



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Model features two distinct sides: one with a transparent cover revealing a detailed sagittal section, including vital structures such as the nose, mouth, pharynx, trachea, esophagus, lungs, and stomach; and the other side offering an anatomically accurate representation of the human torso, ideal for teaching nasogastric (NG) tube length measurement. Additionally, the torso integrates a tracheostomy, enabling the demonstration and practice of various essential techniques and care.

### **Applications:**

- \* Realistic nasogastric (NG) tube insertion practice;
- \* NG tube irrigation, monitoring, and removal;
- \* Gastric lavage and feeding;
- \* Tracheostomy and aspiration care;
- \* Teaching the proper method of NG tube length measurement;
- \* Demonstration of tracheostomy-related techniques and care.



### **Technical Differentiators:**

- \* Deluxe 3-dimensional design and detailed hand-painting;
- \* Dual didactic face: sagittal section with transparent cover and complete anatomical view for NG tube measurement;
- \* Inclusion of tracheostomy for procedure training;
- \* Manufactured with durable, high-quality synthetic material;
- \* Compatible with interactive 3D anatomical model with augmented reality (AR) for in-depth learning.

### **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, enabling comparative analysis of anatomical structures and offering opportunities for continuing education in anatomy, physiology, and pathophysiology.

### **Technical Specifications:**

- \* Material: Durable synthetic material.

### **Main Structures:**

**I. Head and Neck Region:** This section of the model addresses the crucial anatomical structures located in the upper portion of the trunk, essential for initial respiratory and digestive functions, as well as for communication and brain protection.

- **Nasal cavity:** Responsible for filtering, warming, and humidifying inhaled air, in addition to housing olfactory receptors. It is the primary entry point of the respiratory system.

- **Oral cavity (Mouth):** Initial opening of the digestive tract and also contributes to breathing. Houses the tongue and teeth, being fundamental for chewing, swallowing, and phonation.

- **Pharynx:** A muscular tube that serves as a common passage for air and food, connecting the nasal and oral cavities to the larynx and esophagus. It is divided into three main regions.

- **Nasopharynx:** The upper portion of the pharynx, located behind the nasal cavity and above the soft palate. Functions exclusively as an air passage, containing the pharyngeal tonsils.

- **Oropharynx:** The middle portion of the pharynx, extending from the soft palate to the epiglottis. Serves as a pathway for air and food, containing the palatine tonsils.

- **Laryngopharynx:** The lower portion of the pharynx, which extends from the epiglottis to the level of the cricoid cartilage. Connects to the larynx anteriorly and to the esophagus



posteriorly, being a common pathway for air and food.

- **Trachea:** A cartilaginous tube that extends from the larynx to the main bronchi, forming part of the lower airway. Its cartilaginous ring structure prevents collapse, ensuring continuous passage of air.

- **Esophagus:** A muscular tube that extends from the pharynx to the stomach, located posteriorly to the trachea. Its main function is to transport the food bolus through peristaltic contractions.

**II. Thoracic Region:** This part of the model highlights the vital organs located in the rib cage, essential for breathing and blood circulation, protected by the bony structure of the ribs and sternum.

- **Lungs (Section of the right lung visible):** Paired and spongy organs located in the thoracic cavity, responsible for gas exchange (hematosis). The model may display a section that reveals the internal structure and the bronchial tree.

**III. Abdominal Region:** This section of the model focuses on the organs located in the abdominal cavity, crucial for digestion, nutrient absorption, metabolism, and waste elimination.

- **Stomach:** A J-shaped organ located in the upper abdomen, responsible for the chemical and mechanical digestion of food, mixing it with gastric juices before sending it to the small intestine.

#### **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 Retina, Ear, Throat, Pulses, Heart, Lung, and Abdominal 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 accuracy.

**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
- Choriorretinal 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)

**Ear exams:** Conduct 9 realistic diagnostic exams.

- AOM
- Chronic
- Ear Ventilation
- Earwax
- Foreign Object
- Normal
- Otitis Externa
- Pseudomembrane
- Tympanosclerosis

**Throat exams:** Conduct 6 realistic diagnostic exams.

- Normal
- Oral Cancer (Benign)
- Oral Cancer (Malignant)
- Oral Dysplasia
- Pharyngitis
- Tonsillitis

**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

**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 Anatomical Models:**

They are developed with resin replication technology, addressing the scarcity of natural anatomical specimens 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:**

- I. Head and Neck Region:
  - - Brain (Cerebrum, Cerebellum and Brainstem)
  - - Nasal cavity
  - - Oral cavity (Mouth)
  - - Tongue
  - - Pharynx
    - - Nasopharynx
    - - Oropharynx
    - - Laryngopharynx
  - - Larynx
  - - Epiglottis



- - Trachea
- - Esophagus
- - Vertebral column (Cervical vertebrae)
- - Spinal cord (within vertebral column)
- II. Thoracic Region:
  - - Ribs (Cross-section)
  - - Lungs (Right lung section visible)
  - - Heart (Chambers and major vessels implied)
  - - Diaphragm
  - - Vertebral column (Thoracic vertebrae)
  - - Spinal cord (within vertebral column)
- III. Abdominal Region:
  - - Liver
  - - Stomach
  - - Intestines (Small and Large intestine sections visible)
  - - Kidneys (Posteriorly, if sectioned appropriately)
  - - Vertebral column (Lumbar vertebrae)
  - - Spinal cord (within vertebral column)