MG29511 | HALF HEAD MODEL WITH NECK, MUSCLES, BLOOD VESSELS & NERVE BRANCHES

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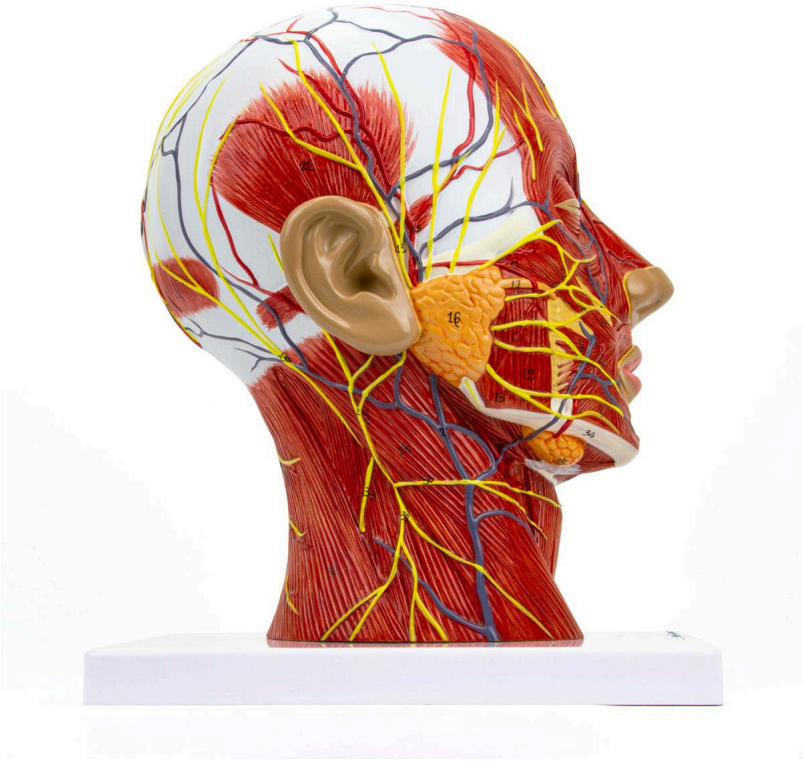

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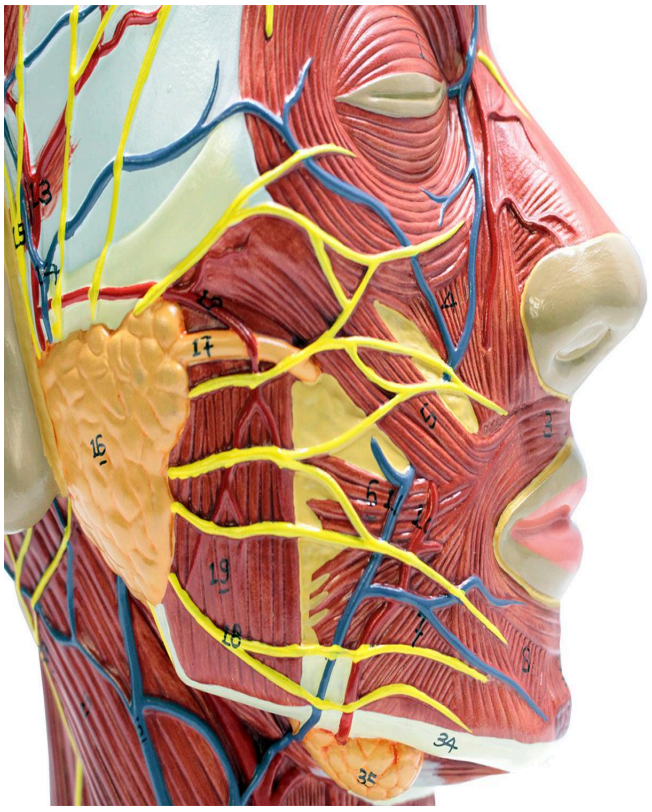

This life-size anatomical model represents the right half of the human head and neck, sectioned along a sagittal plane. Superficial dissection of the facial muscles exposes the main blood vessels and nerve branches of the face, scalp, and parotid and submandibular glands. Deep median dissection reveals the brain with its internal structure, the pharynx, the upper respiratory tract, and a section of the cervical vertebrae.

Applications:
Ideal for detailed study of head and neck anatomy, including neuroanatomy, upper respiratory system, cervical structures, facial musculature, and superficial vascular and nerve networks. Perfect for healthcare students and professionals in medical, nursing, physical therapy, dental, and related courses, offering a complete teaching tool for topographic and functional understanding.

Technical Differentiators:
This model features a precise sagittal section of the right half of the head and neck, offering a detailed view of the anatomical layers. It stands out for its superficial dissection that reveals blood vessels and nerve branches of the face, scalp, and parotid and submandibular glands. Deep median dissection exposes the brain with its internal structures, the pharynx, the upper respiratory tract, and a section of the cervical vertebrae, providing a comprehensive understanding of regional topography.

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). T his 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: Life-size

Main Structures:

Brain: The brain is the control center of the nervous system, responsible for cognitive, sensory, motor, and emotional functions. It processes information, regulates behavior, and stores memories, being fundamental for perception and interaction with the environment.

Pons: Located in the brainstem, the pons is a vital structure that acts as a communication bridge between the brain and cerebellum, and between the brain and spinal cord. It plays a crucial role in regulating sleep, breathing, and sensations, as well as coordinating movements and facial expressions.

Cerebellum: Situated in the posterior and inferior part of the brain, the cerebellum is essential for fine motor coordination, balance, and posture. It refines voluntary movements, ensuring they are smooth and precise, and is also involved in some cognitive and learning functions.

Spinal cord: Part of the central nervous system, the spinal cord extends from the medulla oblongata to the lumbar region. Its main function is to transmit nerve signals between the brain and the rest of the body, as well as mediating reflexes.

Tongue: A muscular organ located in the oral cavity, the tongue is fundamental for speech, chewing, swallowing, and taste. Its mobility and the presence of taste buds allow for a variety of essential functions for feeding and communication.

Mandible: The largest and strongest bone of the face, the mandible forms the lower part of the mouth and houses the lower teeth. It is a mobile bone, crucial for chewing and speech, articulating with the temporal bone through the temporomandibular joint.

Parotid gland: One of the largest salivary glands, the parotid gland is located on the side of the face, anterior to the ear. It produces serous saliva that is released into the oral cavity through the parotid duct (Stensen's duct), aiding in digestion and m oistening the mouth.

External carotid artery: One of the main blood vessels of the neck and head, the external

carotid artery is responsible for supplying oxygenated blood to most of the structures of the face and neck, including the tongue, pharynx, thyroid gland, and maxillofacial region.

Sternocleidomastoid muscle: A large and prominent muscle in the neck, the sternocleidomastoid is vital for head movements. It acts in rotating the head to the opposite side, flexing the neck, and, together, in bilateral flexion of the head.

Epiglottis: A leaf-shaped cartilage located at the top of the larynx, the epiglottis is crucial for protecting the airways during swallowing. It folds over to cover the entrance of the larynx, preventing food and liquids from entering the trachea.

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 to choose 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, and Throat 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.

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)

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

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:

- Superior sagittal sinus
- Brain
- Corpus callosum
- Septum pellucidum
- Fornix
- Pineal gland
- Posterior commissure
- Anterior commissure
- Third ventricle
- Midbrain tegmentum
- Pons
- Cerebellum
- Fourth ventricle
- Medulla oblongata
- Hypophysis
- Optic chiasm
- Sphenoid sinus
- Superior nasal concha
- Middle nasal concha
- Spinal cord
- Axis
- Atlas
- Pharyngeal tonsil
- Hyoid bone
- Auditory tube opening
- Inferior nasal concha
- Hard palate
- Soft palate
- Palatine tonsil
- Oropharynx
- Laryngopharynx
- Cricoid cartilage
- Vestibule
- Vestibular folds
- Vocal fold

- Infraglottic cavity
- Thyroid cartilage
- Epiglottis
- Hyoid bone
- Mylohyoid muscle
- Geniohyoid muscle
- Genioglossus muscle
- Tongue
- Mandible
- Mentalis muscle
- Depressor labii inferioris muscle
- Orbicularis oris muscle
- Body of the mandible
- Submandibular gland
- Depressor anguli oris muscle
- External carotid artery
- Facial artery
- Zygomaticus muscle
- Levator labii superioris muscle
- Facial vein
- Risorius muscle
- Branches of the facial nerve
- Masseter muscle
- Parotid gland
- Parotid duct
- Superior auricular muscle
- Occipital belly of the occipitofrontalis muscle
- Greater occipital nerve
- Occipital artery
- Superficial temporal vein
- Auriculotemporal nerve
- Lesser occipital nerve
- Greater auricular nerve
- External jugular vein
- Sternocleidomastoid muscle
- Transverse cervical nerve
- Supraclavicular nerve
- Occipital artery
- Trapezius muscle
- Frontal sinus
- Nasal cavity
- Orbicularis oculi muscle
- Occipitofrontalis muscle

- Supraorbital nerve
- Optic nerve
- Oculomotor nerve