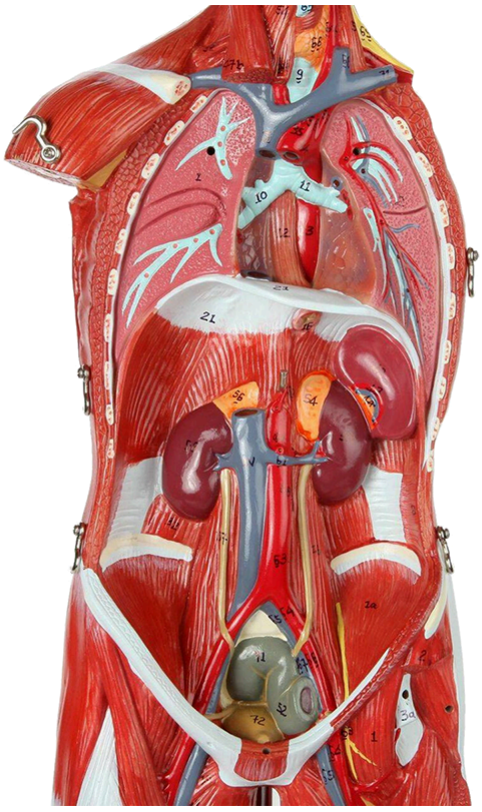
MG23421 | HUMAN MUSCLE FIGURE, 1/2 NATURAL SIZE, 30 PARTS

Nasco
HEALTHCARE



This high-quality anatomical model, at half life-size, offers a complete replica of human muscular anatomy and organs. It illustrates in detail the surface of the deepest muscles, tendons, ligaments, vessels, and other bodily structures, allowing for in-depth study. Its internal organs are removable, facilitating detailed examination and understanding of anatomical relationships.

Applications:

* Detailed study of muscular anatomy, tendons, ligaments, and vessels.
* In-depth examination of internal organs and their relationships.
* Encouraging learning and educational support in anatomy, physiology, and pathophysiology.
* Comparative analysis of anatomical models and individual organ structures.
* Continuing education for students and healthcare professionals.

Technical Differentiators:

* Half life-size for easy handling and viewing.
* Complete representation of muscular anatomy and internal organs.
* Precise details of deep muscles, tendons, ligaments, and vessels.
* Removable internal organs, facilitating the study of anatomical relationships.

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: Half life-size
* Material: High-quality resin

Main Structures:

sternocleidomastoid muscle: The sternocleidomastoid muscle is a large, superficial muscle of the neck that extends from the manubrium and clavicle to the mastoid process of the temporal bone. It is responsible for rotating the head to the opposite side and laterally flexing it to the same side, as well as assisting in neck flexion and forced breathing. Its prominence makes it an important anatomical landmark.

thyroid gland: The thyroid gland is a butterfly-shaped endocrine gland located in the anterior part of the neck, below the thyroid cartilage. It produces thyroid hormones (T3 and T4) that regulate the body's metabolism, and calcitonin, which helps control blood calcium levels. It is crucial for growth, development, and maintenance of metabolic homeostasis.

heart: The heart is a hollow muscular organ, approximately the size of a closed fist, located in the middle mediastinum of the thoracic cavity. It functions as a pump that propels oxygen-rich blood and nutrients throughout the body, and deoxygenated blood to the lungs for oxygenation. It is divided into four chambers (two atria and two ventricles) and has a valve system that ensures unidirectional blood flow.

right lung: The right lung is one of the two main respiratory organs, located in the thoracic cavity and responsible for gas exchange. It is larger than the left lung and divided into three lobes (superior, middle, and inferior) by two fissures (oblique and horizontal). Its primary function is to absorb oxygen from the air and release carbon dioxide from the blood.

brain: The brain is the largest part of the encephalon and the control center of the central nervous system. Located within the skull, it is responsible for higher cognitive functions such as thought, memory, language, emotions, sensory perception, and motor control. It is composed of various structures, including the cerebral lobes, thalamus, hypothalamus, and brainstem, each with specialized functions.

left kidney: The left kidney is one of the two bean-shaped organs, located retroperitoneally, one on each side of the vertebral column, in the lumbar region. Its main function is to filter blood to remove metabolic waste and excess water, forming urine. It also plays a crucial role

in regulating blood pressure, red blood cell production, and electrolyte balance.

left hepatic lobe: The left hepatic lobe is one of the main divisions of the liver, the largest glandular organ in the body, located in the upper right quadrant of the abdomen. Although smaller than the right lobe, it performs the same essential liver functions, such as nutrient metabolism, detoxification of harmful substances, bile production for fat digestion, and glycogen storage.

pancreas: The pancreas is an elongated gland located behind the stomach, extending from the duodenum to the spleen. It has exocrine and endocrine functions. As an exocrine gland, it produces digestive enzymes that are released into the duodenum. As an endocrine gland, it secretes hormones such as insulin and glucagon, which are essential for regulating blood glucose levels.

sciatic nerve: The sciatic nerve is the largest and longest nerve in the human body, originating from the sacral plexus in the lumbar and gluteal region. It extends through the posterior thigh and leg, innervating most of the posterior thigh muscles and all the muscles of the leg and foot. It is responsible for the sensitivity and movement of much of the lower limbs.

hyoid bone: The hyoid bone is a small, U-shaped bone located in the anterior part of the neck, between the mandible and the thyroid cartilage. It is unique in that it does not articulate directly with any other bone, being suspended by muscles and ligaments. It plays a fundamental role in swallowing, speech, and breathing, serving as an attachment point for various muscles of the tongue, pharynx, and neck.

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 Retina, Ear, Throat, Pulses, Heart, Lung, and Abdominal exams. This solution helps develop 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)

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 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:

- protruded muscle
- orbicularis oculi muscle
- left adrenal gland
- anterior auricular muscle
- posterior auricular muscle
- occipital belly of the occipitofrontalis muscle
- parotid gland
- orbicularis oris muscle
- levator labii superioris alaeque nasi muscle
- levator labii superioris muscle

- zygomaticus minor muscle
- zygomaticus major muscle
- lateral pterygoid muscle
- medial pterygoid muscle
- buccinator muscle
- depressor anguli oris muscle
- depressor labii inferioris muscle
- hyoid bone
- submandibular gland
- stylohyoid muscle
- posterior belly of the digastric muscle
- mylohyoid muscle
- anterior belly of the digastric muscle
- thyroid cartilage
- thyrohyoid muscle
- sternohyoid muscle
- superior belly of the omohyoid muscle
- sternothyroid muscle
- thyroid gland
- sternocleidomastoid muscle
- inferior belly of the omohyoid muscle
- sternal head
- clavicular head
- anterior scalene muscle
- common carotid artery
- internal jugular vein
- brachial plexus
- subclavian artery
- subclavian vein
- middle scalene muscle
- posterior scalene muscle
- levator scapulae muscle
- splenius capitis muscle
- semispinalis capitis muscle
- acromion
- spine of the scapula
- trapezius muscle
- trachea
- right main bronchus
- left main bronchus
- esophagus
- thoracic aorta
- hilum of the lung

- abdominal part of the esophagus
- rhomboid minor muscle
- rhomboid major muscle
- latissimus dorsi muscle
- posterior layer of the thoracolumbar fascia
- serratus posterior inferior muscle
- erector spinae muscle
- serratus anterior muscle
- right adrenal gland
- left kidney
- right kidney
- left adrenal vessels
- celiac trunk
- left renal artery
- left renal vein
- abdominal aorta
- inferior mesenteric artery
- urethra
- psoas major muscle
- iliacus muscle
- left common iliac artery
- left common iliac vein
- left external iliac artery
- left external iliac vein
- median sacral artery
- rectum
- urinary bladder
- quadratus lumborum muscle
- rectus abdominis muscle
- pyramidalis muscle
- iliopsoas muscle
- femoral nerve
- femoral artery
- femoral vein
- pectineus muscle
- adductor brevis muscle
- iliotibial tract
- vastus medialis muscle
- vastus intermedius muscle
- gracilis muscle
- adductor magnus muscle
- tendon of the quadriceps femoris muscle
- patella

- patellar ligament
- tibial tuberosity
- pes anserinus
- medial surface of the tibia body
- anterior tibial artery
- deep fibular nerve
- extensor hallucis longus muscle
- extensor digitorum longus muscle
- fibularis brevis muscle
- fibularis longus muscle
- medial malleolus of the tibia
- lateral malleolus of the tibia
- tendon of the fibularis tertius muscle
- extensor digitorum longus muscle
- extensor hallucis brevis muscle
- vastus lateralis muscle
- gluteus minimus muscle
- piriformis muscle
- sacrotuberous ligament
- ischial tuberosity
- obturator internus muscle
- superior gemellus muscle
- inferior gemellus muscle
- quadratus femoris muscle
- sciatic nerve
- semimembranosus muscle
- semimembranosus muscle
- popliteal artery and vein
- tibial nerve
- posterior tibial artery
- common fibular nerve
- popliteus muscle
- posterior tibial artery
- flexor digitorum longus muscle
- tibial nerve
- tibialis posterior muscle
- flexor hallucis longus muscle
- tensor fasciae latae muscle
- medial head of gastrocnemius muscle
- lateral head of gastrocnemius muscle
- Biceps brachii
- Triceps brachii long head
- Triceps brachii lateral head

- Brachialis
- Deltoid
- Brachialis
- Pronator teres
- Brachioradialis
- Extensor carpi radialis longus
- Extensor carpi radialis brevis
- Extensor digitorum longus
- Abductor pollicis longus
- Extensor retinaculum
- Extensor pollicis brevis tendon
- Extensor pollicis longus tendon
- Interosseous muscle
- Dorsal interosseous muscle
- Anconeus
- Flexor carpi ulnaris
- Palmar aponeurosis
- Thenar eminence
- Palmaris brevis
- Palmaris longus tendon
- Deep antebrachial fascia
- gluteus medius muscle
- soleus muscle
- calcaneal tendon
- frontal lobe
- parietal lobe
- temporal lobe
- olfactory bulb
- optic nerve (II)
- oculomotor nerve (III)
- trochlear nerve (IV)
- trigeminal nerve (V)
- abducens nerve (VI)
- facial nerve (VII)
- vestibulocochlear nerve (VIII)
- glossopharyngeal nerve (IX)
- vagus nerve (X)
- accessory nerve (XI)
- hypoglossal nerve (XII)
- occipital lobe
- cerebrum
- corpus callosum

- septum pellucidum
- fornix
- thalamus
- midbrain
- pons
- medulla oblongata
- cerebellum
- quadriceps femoris muscle
- rectus femoris muscle
- flexor carpi radialis muscle
- palmaris longus muscle
- flexor digitorum superficialis muscle
- gluteus maximus muscle
- spleen
- tail of pancreas
- splenic artery
- body of pancreas
- pancreatic duct
- superior mesenteric artery
- superior mesenteric vein
- horizontal part of duodenum
- head of pancreas
- accessory pancreatic duct
- minor duodenal papilla
- major duodenal papilla
- superior part of duodenum
- descending part of duodenum
- head of pancreas
- common bile duct
- hepatic portal vein
- splenic vein
- flexor hallucis longus tendon
- flexor digitorum longus tendon
- plantaris muscle
- plantaris muscle
- oblique head of adductor hallucis muscle
- extensor digitorum muscle
- extensor digiti minimi muscle
- Anterior Deltoid - Clavicular
- Posterior Deltoid - Spinal
- Middle Deltoid - Acromial
- right auricle
- right atrium

- right coronary artery
- right ventricle
- left anterior descending artery
- left auricle
- great cardiac vein
- circumflex artery
- left ventricle
- pectinate muscles
- abdominal part of the esophagus
- cardia
- lesser curvature
- pylorus
- pyloric part
- body of the stomach
- right gastroepiploic artery
- right gastric artery
- fundus of the stomach
- short gastric arteries
- left gastroepiploic artery
- left gastric artery
- greater curvature
- right lung
- superior lobe
- right horizontal fissure
- oblique fissure
- right middle lobe
- inferior lobe
- transverse colon
- jejunum
- ileum
- ascending colon
- cecum
- vermiform appendix
- sigmoid colon
- descending colon
- anterior tibial muscle
- longus adductor muscle
- left hepatic lobe
- right hepatic lobe
- bare area of the liver
- quadrate lobe
- caudate lobe
- gallbladder

- cystic duct
- common hepatic duct
- common bile duct
- proper hepatic artery
- ligamentum venosum
- hepatic portal vein
- inferior vena cava
- left lung
- inferior lobe
- oblique fissure
- superior lobe
- tricuspid valve
- masseter muscle
- sartorius muscle
- brachiocephalic trunk
- left common carotid artery
- left subclavian artery
- aortic arch
- ligamentum arteriosum
- superior vena cava
- ascending aorta
- pulmonary trunk
- pulmonary valve
- mitral valve
- aortic valve
- fossa ovalis
- opening of coronary sinus
- tricuspid valve
- left pulmonary veins
- left atrium
- right pulmonary veins
- coronary sinus
- inferior vena cava
- small cardiac vein
- middle cardiac vein
- supraspinatus muscle
- spine of the scapula
- acromion
- clavicle
- pectoralis minor muscle
- infraspinatus muscle
- teres minor muscle
- teres major muscle

- lateral head
- triceps brachii muscle
- long head
- medial head
- subclavius muscle
- axillary artery
- posterior cord of the brachial plexus
- axillary nerve
- lateral cord of the brachial plexus
- medial cord of the brachial plexus
- posterior circumflex humeral artery
- radial nerve
- subscapularis muscle
- teres major muscle
- latissimus dorsi muscle
- deep brachial artery
- ulnar nerve
- median nerve
- coracobrachialis muscle
- brachial artery
- brachialis muscle
- brachioradialis muscle
- extensor carpi radialis longus muscle
- extensor carpi radialis brevis muscle
- supinator muscle
- deep branch of the radial nerve
- posterior interosseous artery
- abductor pollicis longus muscle
- extensor pollicis brevis muscle
- extensor pollicis longus muscle
- extensor indicis muscle
- dorsal interosseous muscles
- flexor digiti minimi brevis muscle
- abductor digiti minimi muscle
- opponens digiti minimi muscle
- lumbrical muscles
- abductor pollicis brevis muscle
- flexor pollicis brevis muscle
- opponens pollicis muscle
- extensor carpi ulnaris muscle
- flexor carpi ulnaris muscle
- flexor digitorum profundus muscle
- pronator quadratus muscle

- flexor pollicis longus muscle
- radial artery
- pronator teres muscle
- ulnar artery
- anconeus muscle
- Biceps Brachii
- Biceps Brachii - short head
- Biceps Brachii - long head
- semimembranosus muscle
- biceps femoris muscle
- pectoralis major muscle
- clavicular head
- sternocostal head
- abdominal head
- serratus anterior muscle
- external oblique muscle
- pyramidalis muscle
- umbilicus
- anterior rectus sheath
- linea alba
- tendinous intersection
- rectus abdominis muscle
- internal oblique muscle
- sternum
- pectoralis minor muscle
- external intercostal muscle
- internal intercostal muscle
- rib
- costal cartilage
- clavicle
- subclavius muscle
- body wall
- rib
- costal cartilage
- sternum
- transversus thoracis muscle
- diaphragm
- arcuate line
- transversus abdominis muscle
- external oblique muscle
- internal oblique muscle
- transversus abdominis muscle
- frontal belly of the occipitofrontalis muscle

- superior auricular muscle
- epicranial aponeurosis
- temporal muscle