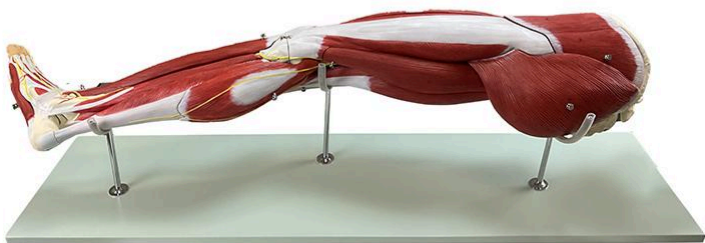




MG30418 | LEG MUSCLES LIFE-SIZE, 23 PARTS



Nasco
HEALTHCARE





This comprehensive 23-part anatomical model offers an in-depth view of the lower limb, detailing superficial and deep muscles, vascular structures, nerves, and ligaments. It precisely illustrates the Popliteal Fossa, focusing on the distal thigh and proximal leg structures, with its muscular boundaries and neurovascular content. The muscular anatomy is richly detailed, encompassing the superficial and deep layers of the gluteal region, hip muscles, thigh muscles (including the quadriceps femoris and hamstrings), and leg and foot muscles, complemented by a comprehensive representation of the vascular and nervous systems.

Applications:

Ideal for in-depth study of lower limb anatomy, this model is an exceptional tool for students and healthcare professionals in anatomy, physiology, and pathophysiology courses. It is indicated for enhancing knowledge of the anatomical and functional relationships of muscles, vessels, and nerves, being a valuable resource for continuing education and comparative analysis of structures.

Technical Differentiators:

- * Model segmented into 23 parts, allowing detailed analysis of layers and structures.
- * Precise representation of the Popliteal Fossa and its complex relationships.
- * Detailed muscular anatomy, including superficial and deep muscles of the gluteal region,



thigh, leg, and foot.

* Comprehensive vascular and nervous system, highlighting important arteries, veins, and nerves of the lower limb.

* Assists in understanding the topographic and functional organization of structures.

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

Technical Specifications:

* Number of parts: 23

Main Structures:

Extensor hallucis longus muscle: Located in the anterior region of the leg, this muscle is responsible for dorsiflexion of the hallux (big toe) and assists in ankle dorsiflexion. Its action is crucial for the swing phase of gait, preventing the toe from dragging on the ground.

Sartorius muscle: The longest muscle in the human body, the sartorius crosses the thigh diagonally from the anterior superior iliac spine to the medial aspect of the tibia (pes anserinus). Its actions include flexion, abduction, and lateral rotation of the hip, as well as flexion of the knee, contributing to movements such as crossing the legs.

Gracilis muscle: Located in the medial region of the thigh, the gracilis is an adductor muscle that extends from the pubis to the tibia, being part of the pes anserinus group. It acts in adduction of the thigh, flexion of the knee, and medial rotation of the leg.

Rectus femoris muscle: Part of the quadriceps femoris, the rectus femoris is the only muscle in this group that crosses two joints: hip and knee. It originates at the anterior inferior iliac spine and acts in hip flexion and knee extension, being essential for activities such as kicking.

Vastus medialis muscle: One of the four components of the quadriceps femoris, the vastus medialis is located on the medial aspect of the thigh. Its main function is knee extension, being particularly important for patellar stabilization and complete knee extension in the final degrees.

Tibialis anterior muscle: Located on the anterior part of the leg, the tibialis anterior is the main muscle responsible for ankle dorsiflexion and foot inversion. It is fundamental for lifting the foot off the ground during gait and for ankle stability.



Extensor digitorum longus muscle: Located on the anterior aspect of the leg, this muscle is responsible for dorsiflexion of the four lateral toes (second to fifth) and assists in ankle dorsiflexion. Its action is vital for locomotion, preventing the dragging of the toes.

Biceps femoris muscle: One of the hamstring muscles, the biceps femoris has two heads (long and short) and is located on the posterior aspect of the thigh. It is responsible for knee flexion and hip extension, as well as promoting lateral rotation of the leg when the knee is flexed.

Semitendinosus muscle: Also part of the hamstring group, the semitendinosus is located medially on the posterior aspect of the thigh. Its main function is knee flexion and hip extension, also contributing to medial rotation of the leg.

Gluteus maximus muscle: The largest and most superficial of the gluteal muscles, the gluteus maximus forms the main mass of the buttock region. It is a powerful hip extensor, essential for climbing stairs, running, and rising from a chair, as well as being an important lateral rotator of the femur.

Tibial nerve: Main branch of the sciatic nerve in the posterior region of the thigh, the tibial nerve descends through the popliteal fossa and continues through the leg and foot. It innervates the muscles of the posterior region of the leg (ankle and toe flexors) and provides sensitivity to the sole of the foot, being crucial for locomotion and proprioception.

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 Pulse examinations. This solution assists in developing diagnostic skills in different clinical scenarios, allowing professionals and students to explore and enhance their skills with greater safety and precision.

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:

- Extensor hallucis longus muscle
- Femoral nerve
- Sartorius muscle
- External iliac vein
- External iliac artery
- Iliac artery
- Common iliac vein
- Internal iliac vein
- Internal iliac artery
- Sacral plexus
- Iliacus muscle
- Sartorius muscle
- Adductor longus muscle
- Gracilis muscle
- Rectus femoris muscle
- Vastus medialis muscle
- Tibialis anterior muscle
- Extensor digitorum longus muscle
- Biceps femoris muscle
- Semitendinosus muscle
- Gluteus medius muscle
- Gluteus maximus muscle
- Tibial nerve
- Gastrocnemius muscle
- Flexor digitorum brevis muscle
- Abductor digiti minimi muscle