



**MG23167 | HAND WITH MUSCLES, TENDONS,
LIGAMENTS, NERVES AND ARTERIES, 7
PARTS**









Life-size anatomical model demonstrating the detailed anatomy of the hand. The superficial layers are removable at different levels to reveal the internal structures, including muscles, blood vessels, nerves, tendons, ligaments, and bones, all accurately represented.

Applications:

- * Detailed study of hand anatomy.
- * Surgical training and pre-operative planning.
- * Anatomy education for students and healthcare professionals.
- * Visual aid for clinical demonstrations and lectures.

Technical Differentiators:

- * Removable superficial layers for progressive visualization of internal structures.
- * Detailed representation of muscles, blood vessels, nerves, tendons, ligaments, and bones.
- * Manufactured with durable synthetic material.
- * Accompanies interactive 3D anatomical model with augmented reality.

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: Life-size
- * Material: Synthetic

Main Structures:

Aponeurosis: An aponeurosis is a sheet of fibrous connective tissue, similar to a tendon, that serves to connect muscles to other parts of the body, such as bones or other muscles. Unlike tendons, aponeuroses are wider and flatter, allowing for a broader distribution of muscle force.

Transverse metacarpal ligament: This ligament is a fibrous band that connects the heads of the metacarpal bones in the palm of the hand. It contributes to the stability of the metacarpal arch, helping to maintain the shape of the hand and facilitating grasping.

Cruciform part of the fibrous sheath: The fibrous sheath of the fingers is a system of ligaments that surrounds the flexor tendons, keeping them close to the finger bones. The cruciform part is a specific portion of this sheath, with fibers arranged in a cross shape, which allows for the smooth movement of the tendons during finger flexion and extension.

Branch of the palmar digital nerve: These nerve branches are responsible for providing sensory innervation to the skin of the fingers in the palmar region. They are derived from the median and ulnar nerves and allow for the perception of touch, pressure, pain, and temperature in the fingers.

Annular part of the fibrous sheath: Similar to the cruciform part, the annular part of the fibrous sheath is a section of the sheath that surrounds the flexor tendons. Its ring-shaped structure helps keep the tendons in place, preventing them from moving away from the bones during movement.

Distal phalanx of the little finger: The distal phalanx is the most distal bone in the little finger (fifth finger). It is smaller and flatter than the other phalanges and supports the nail. The distal phalanx allows for the final flexion of the little finger.

Middle phalanx of the little finger: Located between the proximal and distal phalanx in the little finger, the middle phalanx contributes to finger flexion. It is absent in the thumb, which has only proximal and distal phalanges.

Proximal phalanx of the little finger: The proximal phalanx is the base bone of the little finger, articulating with the metacarpal bone in the palm of the hand. It allows for flexion and extension of the little finger at the metacarpophalangeal joint.



Flexor digitorum profundus tendon: This tendon is one of the main ones responsible for finger flexion. It extends from the forearm to the distal phalanx of each finger (except the thumb), allowing for flexion of the distal interphalangeal joint.

Palmaris longus tendon: Present in many individuals, the palmaris longus tendon extends from the forearm to the palmar aponeurosis in the palm of the hand. It assists in wrist flexion and tensioning of the palmar aponeurosis.

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.

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:

- Aponeurosis
- Transverse metacarpal ligament
- Cruciform part of the fibrous sheath
- Branch of the palmar digital nerve
- Annular part of the fibrous sheath
- Distal phalanx of the little finger
- Middle phalanx of the little finger
- Proximal phalanx of the little finger
- Flexor digitorum profundus tendon
- Palmaris longus tendon
- Flexor carpi radialis tendon
- Flexor digitorum superficialis tendon
- Flexor pollicis longus tendon
- Flexor carpi ulnaris tendon
- Distal phalanx of the thumb
- Intertendinous connection
- Extensor indicis tendon
- Extensor carpi radialis brevis tendon
- Superficial branch of the radial nerve



- Extensor pollicis longus tendon sheath
- Extensor pollicis brevis and abductor pollicis longus tendon sheath
- Extensor pollicis tendon
- Extensor pollicis longus tendon
- Extensor carpi radialis longus tendon
- Distal phalanx of the thumb
- Radius
- Extensor carpi tendons sheath
- Extensor carpi ulnaris tendon sheath
- Extensor digiti minimi tendon sheath
- Extensor digitorum and extensor indicis tendon sheath
- Extensor retinaculum
- Extensor carpi ulnaris tendon
- Extensor digiti minimi tendon
- Extensor digitorum tendon
- Ulna
- Dorsal branch of the ulnar nerve
- Opponens pollicis muscle
- Proximal phalanx of the thumb
- Abductor pollicis brevis muscle
- Radial artery of the index finger
- Dorsal interosseous muscles
- Bone marrow
- Extensor indicis tendon
- Ulnar nerve
- Palmar metacarpal arteries
- Flexor pollicis brevis muscle
- Dorsal digital artery
- Palmaris brevis muscle
- Abductor digiti minimi muscle
- Proper palmar digital arteries
- Ulnar nerve
- Superficial branch of the radial artery
- Abductor pollicis longus tendon
- Flexor pollicis longus tendon