



MG29364 | HAND WITH LIGAMENTS AND MUSCLES, 4 PARTS



Life-size anatomical model of the hand, allowing detailed visualization of superficial and deep structures. The palmar aponeurosis and palmaris brevis muscle are removable to reveal the intricate network of underlying muscles, tendons, vessels, and nerves. Deep palmar dissection allows observation of the palmaris longus tendon, palmar carpal ligament, and median nerve, while partial removal of the thenar muscles exposes the superficial palmar branch of the radial artery. Superficial dorsal dissection reveals ligaments, nerves, and vessels.

Applications:

- * Detailed study of hand anatomy.
- * Surgical training.
- * Anatomy education for students and healthcare professionals.
- * Visualization of hand structures at different levels of depth.

**Technical Differentiators:**

- * Life-size representation.
- * Removable structures for in-depth study.
- * Dissections that allow visualization of different anatomical layers.
- * 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 (A.R.). This exclusive interactive platform stimulates learning, allowing for comparative analysis of anatomical structures and offering opportunities for continued education in anatomy, physiology, and pathophysiology.

Technical Specifications:

- * Scale: Life-size
- * Material: Resin

Main Structures:

1. Palmar aponeurosis: A thick layer of fibrous connective tissue located in the palm of the hand. It extends from the transverse carpal ligament to the bases of the fingers and protects the underlying tendons and nerves, in addition to contributing to the grip strength of the hand.

2. Palmaris brevis muscle: Small intrinsic muscle of the hand located in the hypothenar region (ulnar side of the palm). It originates in the palmar aponeurosis and inserts into the skin of the medial border of the hand, wrinkling the skin to assist in gripping.

3. Abductor pollicis brevis muscle: One of the three thenar muscles (thumb muscles), located in the palm of the hand. It is responsible for abduction of the thumb (movement that moves the thumb away from the hand).

4. Flexor pollicis brevis muscle: Also a thenar muscle, located deep to the abductor pollicis brevis. It assists in flexion of the metacarpophalangeal joint of the thumb.

5. Opponens pollicis muscle: Thenar muscle that allows opposition of the thumb, an essential movement for fine gripping. It pulls the thumb towards the center of the palm, allowing it to touch the other fingers.

6. Palmaris longus tendon: Thin, long tendon that extends from the forearm to the palm of the hand. It inserts into the palmar aponeurosis and assists in wrist flexion, in addition to tensioning the palmar aponeurosis to improve gripping.

7. Transverse carpal ligament: Strong band of connective tissue that extends across the



carpal bones, forming the roof of the carpal tunnel. It keeps the flexor tendons and median nerve in their proper places.

8. Median nerve: One of the main nerves of the upper limb, which passes through the carpal tunnel. It provides sensory innervation to the palm of the hand and the palmar surface of the fingers (except the little finger) and motor innervation to some of the thenar muscles.

9. Ulnar artery: One of the main blood vessels of the forearm and hand. It enters the hand superficially to the flexor retinaculum and contributes to the formation of the superficial palmar arch, which irrigates the fingers.

10. Radial artery: One of the main blood vessels of the forearm and hand. It contributes to the formation of the deep palmar arch, which irrigates the hand.

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. You can 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, supplying 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:

- 1. Palmar aponeurosis
- 2. Palmaris brevis muscle
- 3. Abductor pollicis brevis muscle
- 4. Flexor pollicis brevis muscle
- 5. Opponens pollicis muscle
- 6. Adductor pollicis muscle
- 7. Palmaris longus tendon
- 8. Transverse carpal ligament
- 9. Flexor digitorum superficialis tendons
- 10. Lumbrical muscle
- 11. Ulnar nerve
- 12. Ulnar artery
- 13. Superficial palmar arch



- 14. Median nerve
- 15. Common palmar digital nerves and arteries
- 16. Superficial palmar branch of radial artery
- 17. Abductor digiti minimi muscle
- 18. Flexor digiti minimi brevis muscle
- 19. Opponens digiti minimi muscle
- 20. Deep palmar (arterial) arch
- 21. Palmar interosseous muscles
- 22. Palmar metacarpal arteries
- 23. Superficial branch of palmar nerve
- 24. Dorsal branch of ulnar nerve
- 25. Radial artery
- 26. Dorsal venous network of hand
- 27. Extensor digitorum tendon
- 28. Dorsal interosseous muscles