



The Forearm

Skin

The **sensory nerve supply** to the skin of the forearm is from the anterior and posterior branches of the lateral cutaneous nerve of the forearm, a continuation of the musculocutaneous nerve, and from the anterior and posterior branches of the medial cutaneous nerve of the forearm (Fig. 9.38). A narrow strip of skin down the middle of the posterior surface of the forearm is supplied by the posterior cutaneous nerve of the forearm.

The **superficial veins** of the forearm lie in the superficial fascia (Fig. 9.39). The **cephalic vein** arises from the lateral side of the dorsal venous arch on the back of the

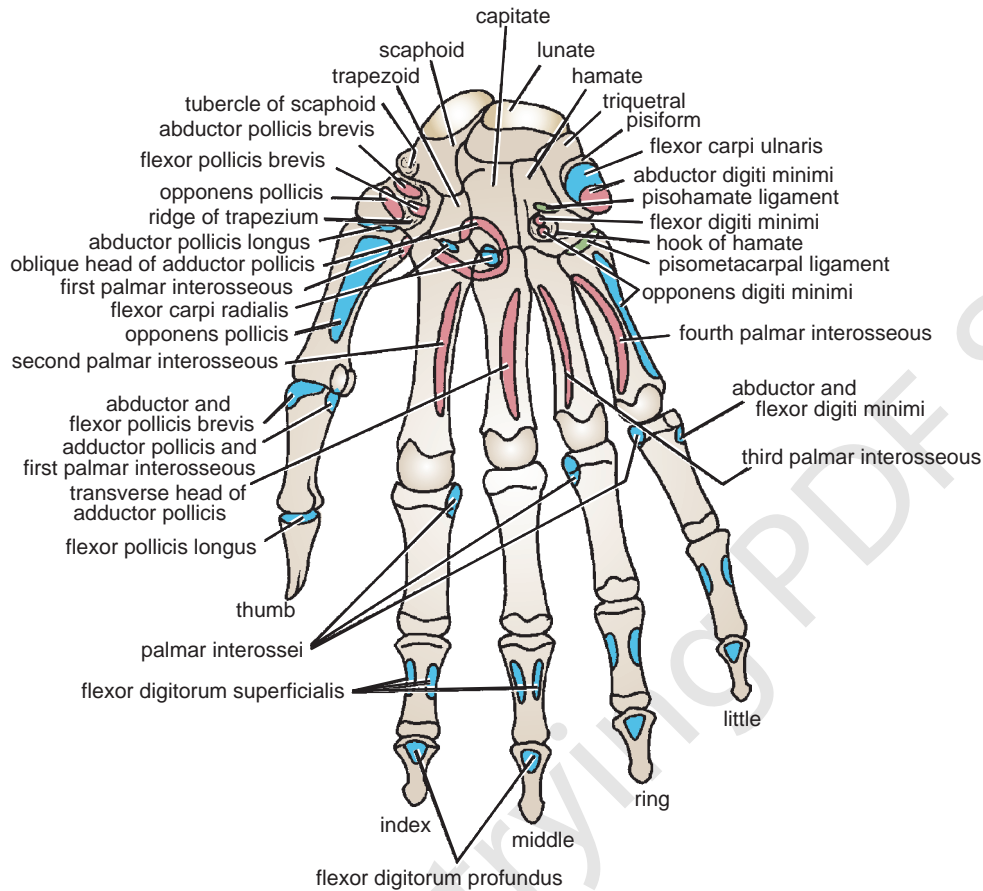


FIGURE 9.51 Important muscular attachments to the anterior surfaces of the bones of the hand.

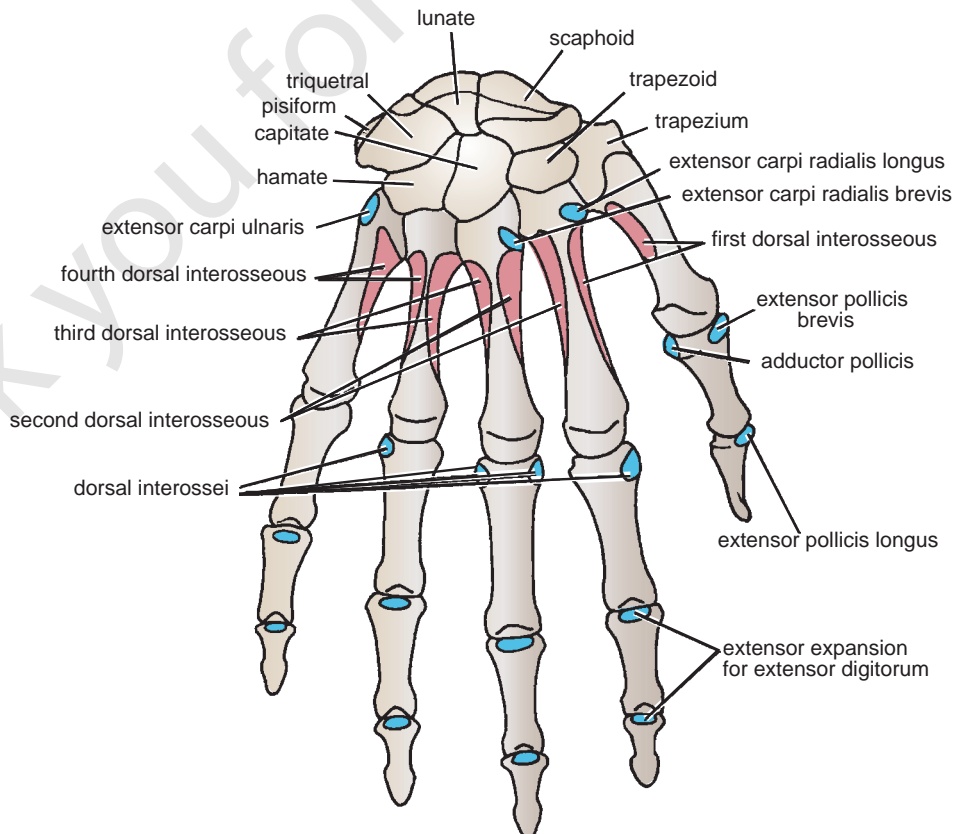


FIGURE 9.52 Important muscular attachments to the posterior surfaces of the bones of the hand.



CLINICAL NOTES

Injuries to the Bones of the Hand

Fracture of the scaphoid bone is common in young adults; unless treated effectively, the fragments will not unite, and permanent weakness and pain of the wrist will result, with the subsequent development of osteoarthritis. The fracture line usually goes through the narrowest part of the bone, which, because of its location, is bathed in synovial fluid. The blood vessels to the scaphoid enter its proximal and distal ends, although the blood supply is occasionally confined to its distal end. If the latter occurs, a fracture deprives the proximal fragment of its arterial supply, and this fragment undergoes avascular necrosis. Deep tenderness in the anatomic snuffbox after a fall on the outstretched hand in a young adult makes one suspicious of a fractured scaphoid.

Dislocation of the lunate bone occasionally occurs in young adults who fall on the outstretched hand in a way that causes

hyperextension of the wrist joint. Involvement of the median nerve is common.

Fractures of the metacarpal bones can occur as a result of direct violence, such as the clenched fist striking a hard object. The fracture always angulates dorsally. The “boxer’s fracture” commonly produces an oblique fracture of the neck of the fifth and sometimes the fourth metacarpal bones. The distal fragment is commonly displaced proximally, thus shortening the finger posteriorly.

Bennett’s fracture is a fracture of the base of the metacarpal of the thumb caused when violence is applied along the long axis of the thumb or the thumb is forcefully abducted. The fracture is oblique and enters the carpometacarpal joint of the thumb, causing joint instability.

Fractures of the phalanges are common and usually follow direct injury.

hand and winds around the lateral border of the forearm; it then ascends into the cubital fossa and up the front of the arm on the lateral side of the biceps. It terminates in the axillary vein in the deltopectoral triangle (see page 419). As the cephalic vein passes up the upper limb, it receives a variable number of tributaries from the lateral and posterior surfaces of the limb (Fig. 9.39). The **median cubital vein**, a branch of the cephalic vein in the cubital fossa, runs upward and medially and joins the basilic vein. In the cubital fossa, the median cubital vein crosses in front of the brachial artery and the median nerve, but it is separated from them by the bicipital aponeurosis.

The **basilic vein** arises from the medial side of the dorsal venous arch on the back of the hand and winds around the medial border of the forearm; it then ascends into the cubital fossa and up the front of the arm on the medial side of the biceps (Fig. 9.39). Its termination, by joining the venae comitantes of the brachial artery to form the axillary vein, is described on page 351. It receives the median cubital vein and a variable number of tributaries from the medial and posterior surfaces of the upper limb.

The **superficial lymph vessels** from the thumb and lateral fingers and the lateral areas of the hand and forearm follow the cephalic vein to the infraclavicular group of nodes (Fig. 9.40). Those from the medial fingers and the medial areas of the hand and the forearm follow the basilic vein to the cubital fossa. Here, some of the vessels drain into the **supratrochlear lymph node**, whereas others bypass the node and accompany the basilic vein to the axilla, where they drain into the lateral group of axillary nodes. The efferent vessels from the supratrochlear node also drain into the lateral axillary nodes (Fig. 9.40).

Fascial Compartments of the Forearm

The forearm is enclosed in a sheath of deep fascia, which is attached to the periosteum of the posterior subcutaneous border of the ulna (Fig. 9.53). This fascial sheath, together with the interosseous membrane and fibrous intermuscular septa, divides the forearm into several compartments, each having its own muscles, nerves, and blood supply.



CLINICAL NOTES

Compartment Syndrome of the Forearm

The forearm is enclosed in a sheath of deep fascia, which is attached to the periosteum of the posterior subcutaneous border of the ulna (Fig. 9.53). This fascial sheath, together with the interosseous membrane and fibrous intermuscular septa, divides the forearm into several compartments, each having its own muscles, nerves, and blood supply. There is very little room within each compartment, and any edema can cause secondary vascular compression of the blood vessels; the veins are first affected, and later the arteries.

Soft tissue injury is a common cause, and early diagnosis is critical. Early signs include altered skin sensation (caused by ischemia of the sensory nerves passing through the compartment), pain disproportionate to any injury (caused by pressure on nerves within the compartment), pain on passive stretching of muscles that pass through the compartment (caused by muscle ischemia), tenderness of the skin over the compartment (a late sign caused by edema), and absence of capillary refill in the nail beds (caused by pressure on the arteries within the compartment). Once the diagnosis is made, the deep fascia must be incised surgically

(continued)

to decompress the affected compartment. A delay of as little as 4 hours can cause irreversible damage to the muscles.

Volkmann's Ischemic Contracture

Volkmann's ischemic contracture is a contracture of the muscles of the forearm that commonly follows fractures of the distal end of the humerus or fractures of the radius and ulna. In this syndrome, a localized segment of the brachial artery goes into spasm, reducing the arterial flow to the flexor and the extensor muscles so that they undergo ischemic necrosis. The flexor muscles are larger than the extensor muscles, and they are therefore the ones mainly affected. The muscles are replaced by fibrous tissue, which contracts, producing the deformity. The arterial spasm is usually caused by an overtight cast, but in some cases the fracture itself may be responsible. The deformity can

be explained only by understanding the anatomy of the region. Three types of deformity exist:

- The long flexor muscles of the carpus and fingers are more contracted than the extensor muscles, and the wrist joint is flexed; the fingers are extended. If the wrist joint is extended passively, the fingers become flexed.
- The long extensor muscles to the fingers, which are inserted into the extensor expansion that is attached to the proximal phalanx, are greatly contracted; the metacarpophalangeal joints and the wrist joint are extended, and the interphalangeal joints of the fingers are flexed.
- Both the flexor and extensor muscles of the forearm are contracted. The wrist joint is flexed, the metacarpophalangeal joints are extended, and the interphalangeal joints are flexed.

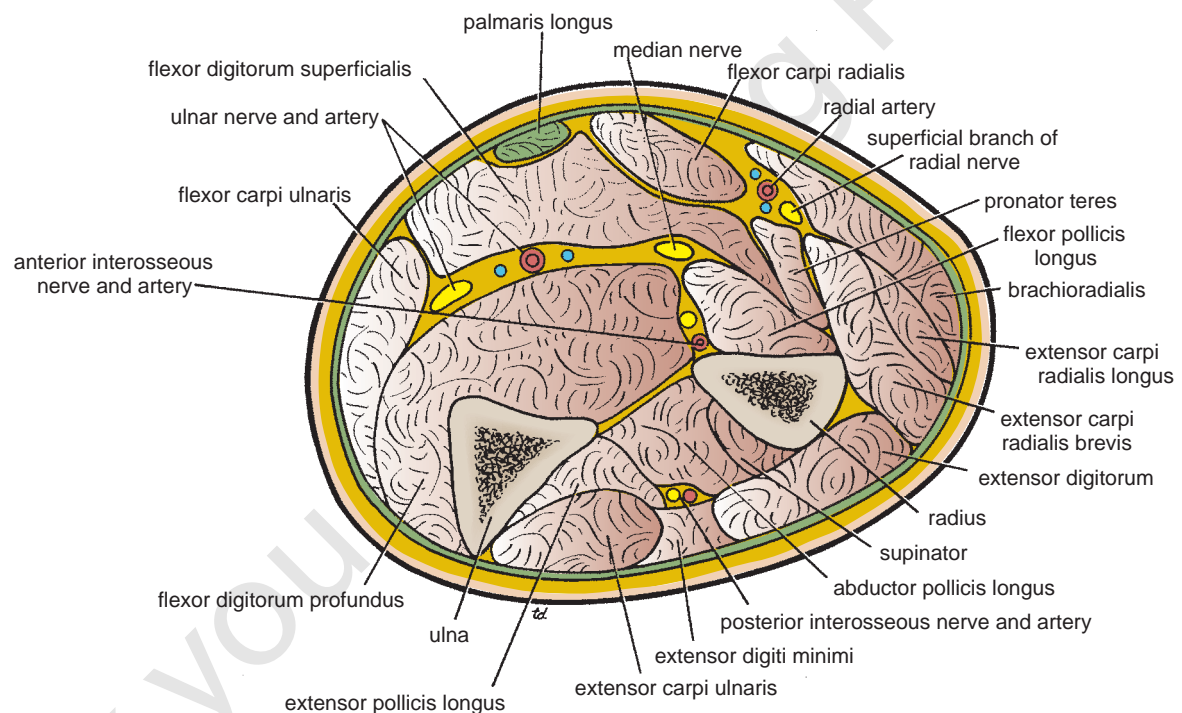


FIGURE 9.53 Cross section of the forearm at the level of insertion of the pronator teres muscle.

Interosseous Membrane

The interosseous membrane is a strong membrane that unites the shafts of the radius and the ulna; it is attached to their interosseous borders (Figs. 9.49 and 9.53). Its fibers run obliquely downward and medially so that a force applied to the lower end of the radius (e.g., falling on the outstretched hand) is transmitted from the radius to the ulna and from there to the humerus and scapula. Its fibers are taut when the forearm is in the midprone position—that is, the position of function. The interosseous membrane provides attachment for neighboring muscles.

Flexor and Extensor Retinacula

The flexor and extensor retinacula are strong bands of deep fascia that hold the long flexor and extensor tendons in position at the wrist.

Flexor Retinaculum

The flexor retinaculum is a thickening of deep fascia that holds the long flexor tendons in position at the wrist. It stretches across the front of the wrist and converts the concave anterior surface of the hand into an osteofascial tunnel, the **carpal tunnel**, for the passage of the median nerve and the flexor tendons of the thumb and fingers (Fig. 9.54).

It is attached medially to the pisiform bone and the hook of the hamate and laterally to the tubercle of the scaphoid and the trapezium bones. The attachment to the trapezium consists of superficial and deep parts and forms a synovial-lined tunnel for passage of the tendon of the flexor carpi radialis.

The upper border of the retinaculum corresponds to the distal transverse skin crease in front of the wrist and is continuous with the deep fascia of the forearm. The lower border is attached to the palmar aponeurosis (Fig. 9.55).

Extensor Retinaculum

The extensor retinaculum is a thickening of deep fascia that stretches across the back of the wrist and holds the long extensor tendons in position (Figs. 9.56 and 9.57). It converts the grooves on the posterior surface of the distal ends of the radius and ulna into six separate tunnels for the passage of the long extensor tendons. Each tunnel is lined with a synovial sheath, which extends above and below the retinaculum on the tendons. The tunnels are separated from one another by fibrous septa that pass from the deep surface of the retinaculum to the bones.

The retinaculum is attached medially to the pisiform bone and the hook of the hamate and laterally to the distal end of the radius. The upper and lower borders of

the retinaculum are continuous with the deep fascia of the forearm and hand, respectively.

The contents of the tunnels beneath the extensor retinaculum are described on page 397.

Carpal Tunnel

The bones of the hand and the flexor retinaculum form the carpal tunnel (Fig. 9.54). The median nerve lies in a **restricted space** between the tendons of the flexor digitorum superficialis and the flexor carpi radialis muscles. For further details, see page 398.

Contents of the Anterior Fascial Compartment of the Forearm

- **Muscles:** A **superficial group**, consisting of the pronator teres, the flexor carpi radialis, the palmaris longus, and the flexor carpi ulnaris; an **intermediate group** consisting of the flexor digitorum superficialis; and a **deep group** consisting of the flexor pollicis longus, the flexor digitorum profundus, and the pronator quadratus
- **Blood supply to the muscles:** Ulnar and radial arteries
- **Nerve supply to the muscles:** All the muscles are supplied by the median nerve and its branches, except the flexor carpi ulnaris and the medial part of the flexor digitorum profundus, which are supplied by the ulnar nerve.

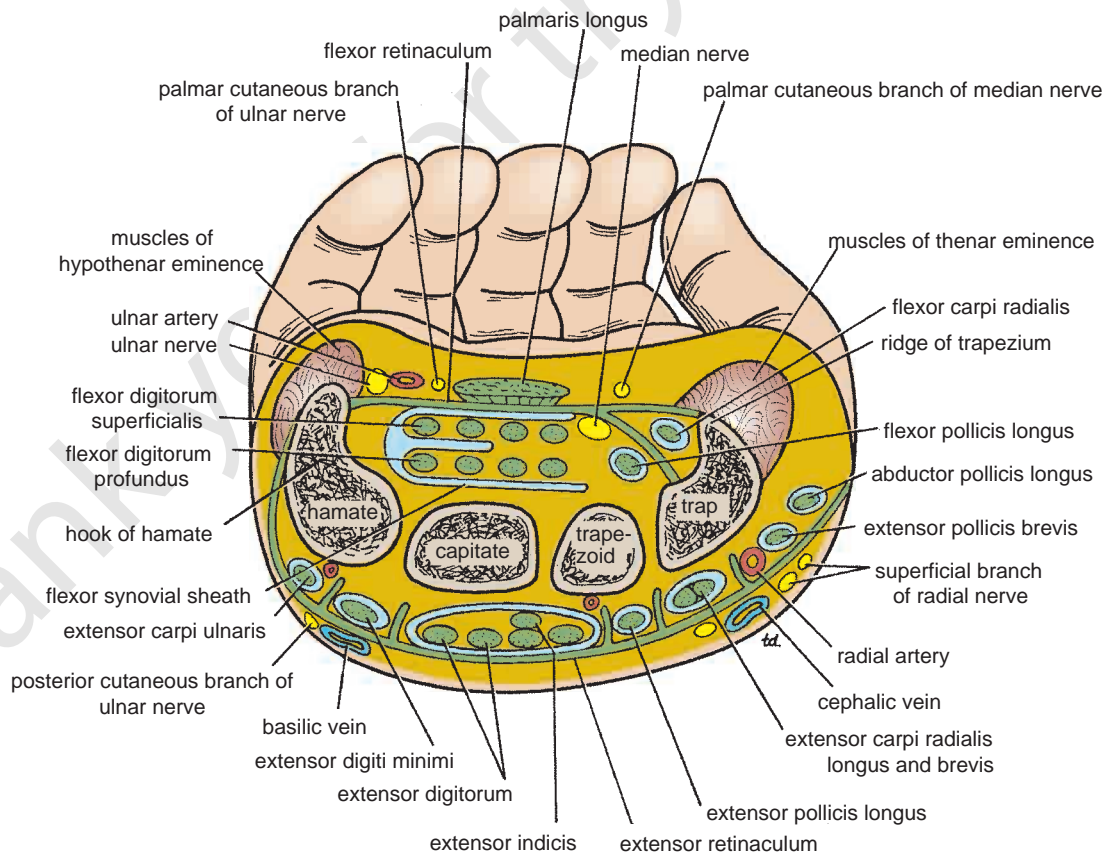


FIGURE 9.54 Cross section of the hand showing the relation of the tendons, nerves, and arteries to the flexor and extensor retinacula.

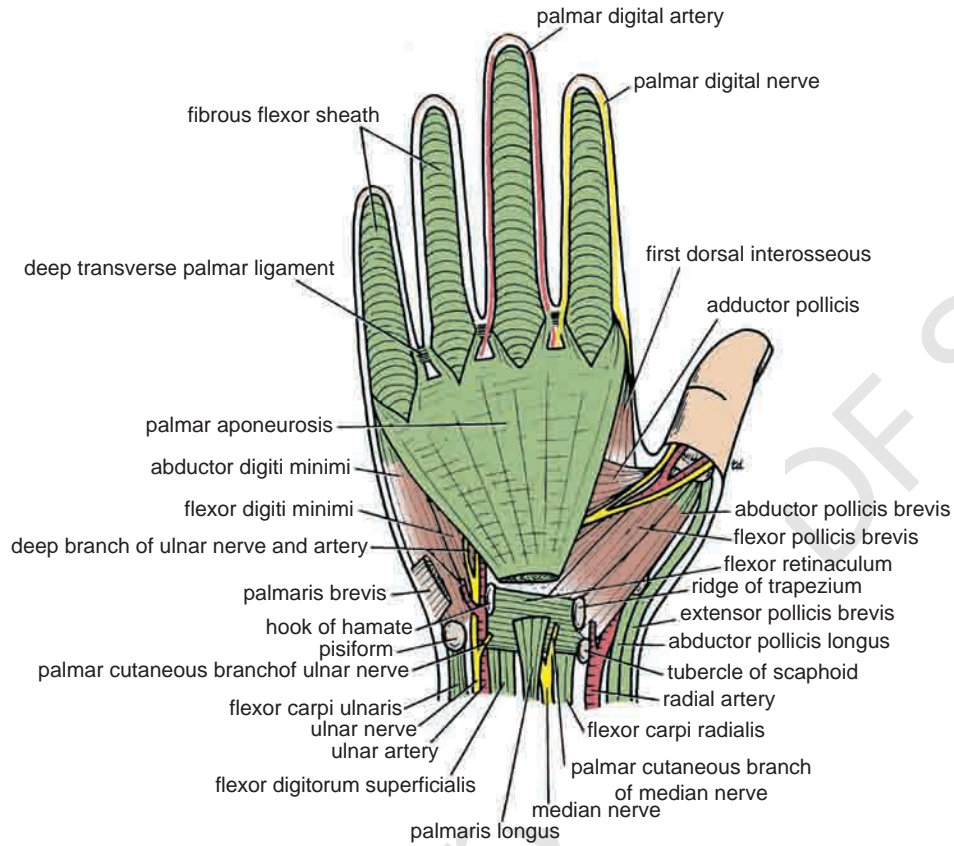


FIGURE 9.55 Anterior view of the palm of the hand. The palmar aponeurosis has been left in position.

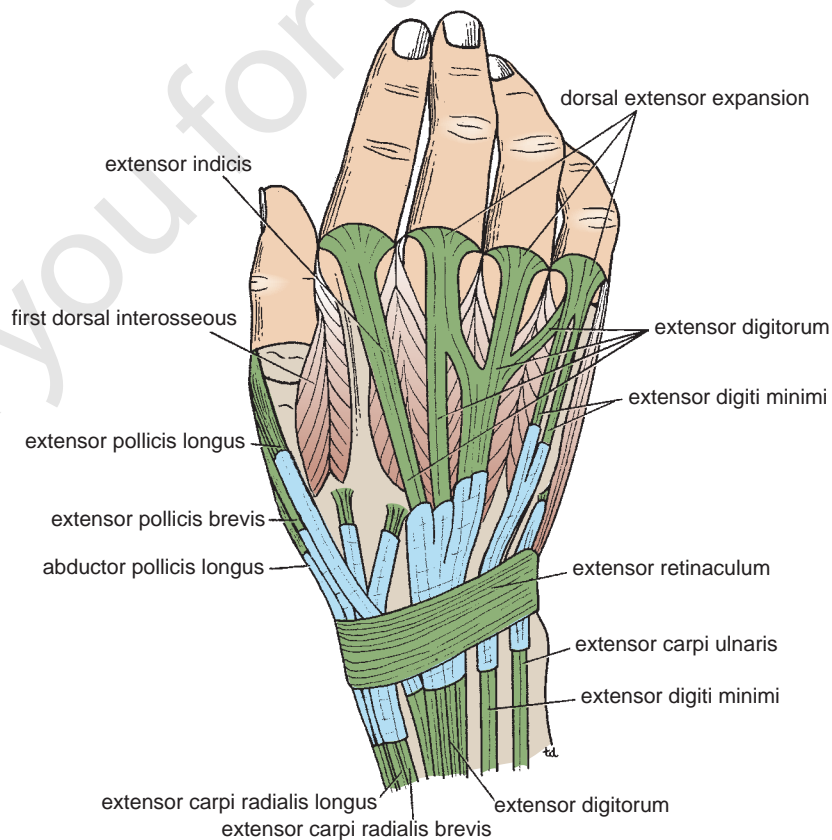


FIGURE 9.56 Dorsal surface of the hand showing the long extensor tendons and their synovial sheaths.

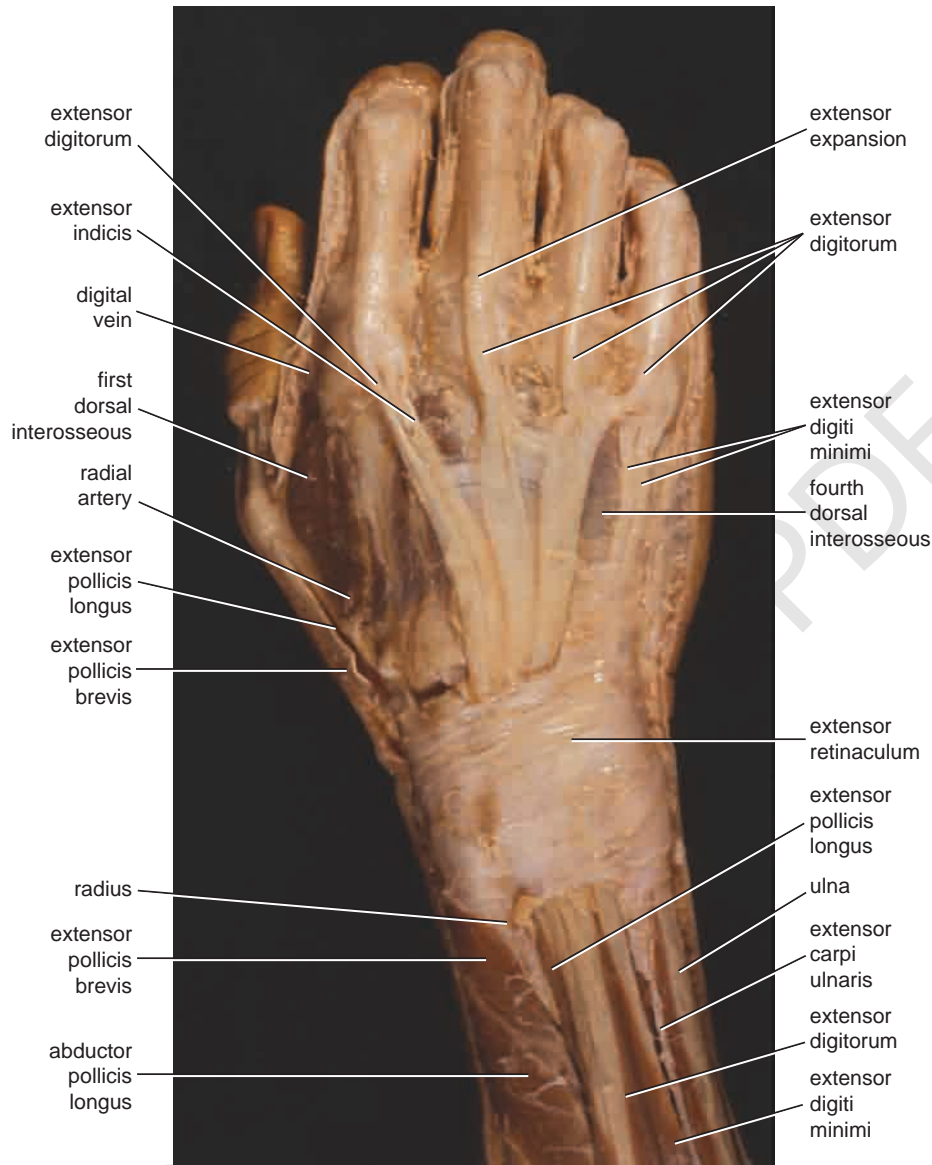


FIGURE 9.57 Dissection of the dorsal surface of the right hand showing the long extensor tendons and the extensor retinaculum.



CLINICAL NOTES

Absent Palmaris Longus

The palmaris longus muscle may be absent on one or both sides of the forearm in about 10% of persons. Others show variation in form, such as centrally or distally placed muscle belly in the place of a proximal one. Because the muscle is relatively weak, its absence produces no disability.

Muscles of the Anterior Fascial Compartment of the Forearm

The muscles of the anterior fascial compartment are seen in Figures 9.58, 9.59, 9.60, and 9.61 and are described in Table 9.6. Note that the superficial group of muscles possesses a common tendon of origin, which is attached to the medial epicondyle of the humerus.

Arteries of the Anterior Fascial Compartment of the Forearm

Ulnar Artery The ulnar artery is the larger of the two terminal branches of the brachial artery (Figs. 9.42 and 9.60).

It begins in the cubital fossa at the level of the neck of the radius. It descends through the anterior compartment of the forearm and enters the palm **in front of** the flexor retinaculum in company with the ulnar nerve (Fig. 9.62). It ends by forming the **superficial palmar arch**, often anastomosing with the superficial palmar branch of the radial artery (Fig. 9.62).

In the upper part of its course, the ulnar artery lies deep to most of the flexor muscles. Below, it becomes superficial and lies between the tendons of the flexor carpi ulnaris and the tendons of the flexor digitorum superficialis. In front of the flexor retinaculum, it lies just lateral to the pisiform bone and is covered only by skin and fascia (site for taking ulnar pulse).

TABLE 9.6 Muscles of the Anterior Fascial Compartment of the Forearm

Muscle	Origin	Insertion	Nerve Supply	Nerve Roots ^a	Action
Pronator Teres					
Humeral head	Medial epicondyle of humerus	Lateral aspect of shaft of radius	Median nerve	C6, 7	Pronation and flexion of forearm
Ulnar head	Medial border of coronoid process of ulna				
Flexor carpi radialis	Medial epicondyle of humerus	Bases of second and third metacarpal bones	Median nerve	C6, 7	Flexes and abducts hand at wrist joint
Palmaris longus	Medial epicondyle of humerus	Flexor retinaculum and palmar aponeurosis	Median nerve	C7, 8	Flexes hand
Flexor Carpi Ulnaris					
Humeral head	Medial epicondyle of humerus	Pisiform bone, hook of the hamate, base at fifth metacarpal bone	Ulnar nerve	C8; T1	Flexes and adducts hand at wrist joint
Ulnar head	Medial aspect of olecranon process and posterior border of ulna				
Flexor Digitorum Superficialis					
Humeroulnar head	Medial epicondyle of humerus; medial border of coronoid process of ulna	Middle phalanx of medial four fingers	Median nerve	C7, 8; T1	Flexes middle phalanx of fingers and assists in flexing proximal phalanx and hand
Radial head	Oblique line on anterior surface of shaft of radius				
Flexor pollicis longus	Anterior surface of shaft of radius	Distal phalanx of thumb	Anterior interosseous branch of median nerve	C8; T1	Flexes distal phalanx of thumb
Flexor digitorum profundus	Anteromedial surface of shaft of ulna	Distal phalanges of medial four fingers	Ulnar (medial half) and median (lateral half) nerves	C8; T1	Flexes distal phalanx of fingers; then assists in flexion of middle and proximal phalanges and wrist
Pronator quadratus	Anterior surface of shaft of ulna	Anterior surface of shaft of radius	Anterior interosseous branch of median nerve	C8; T1	Pronates forearm

^aThe predominant nerve root supply is indicated by boldface type.

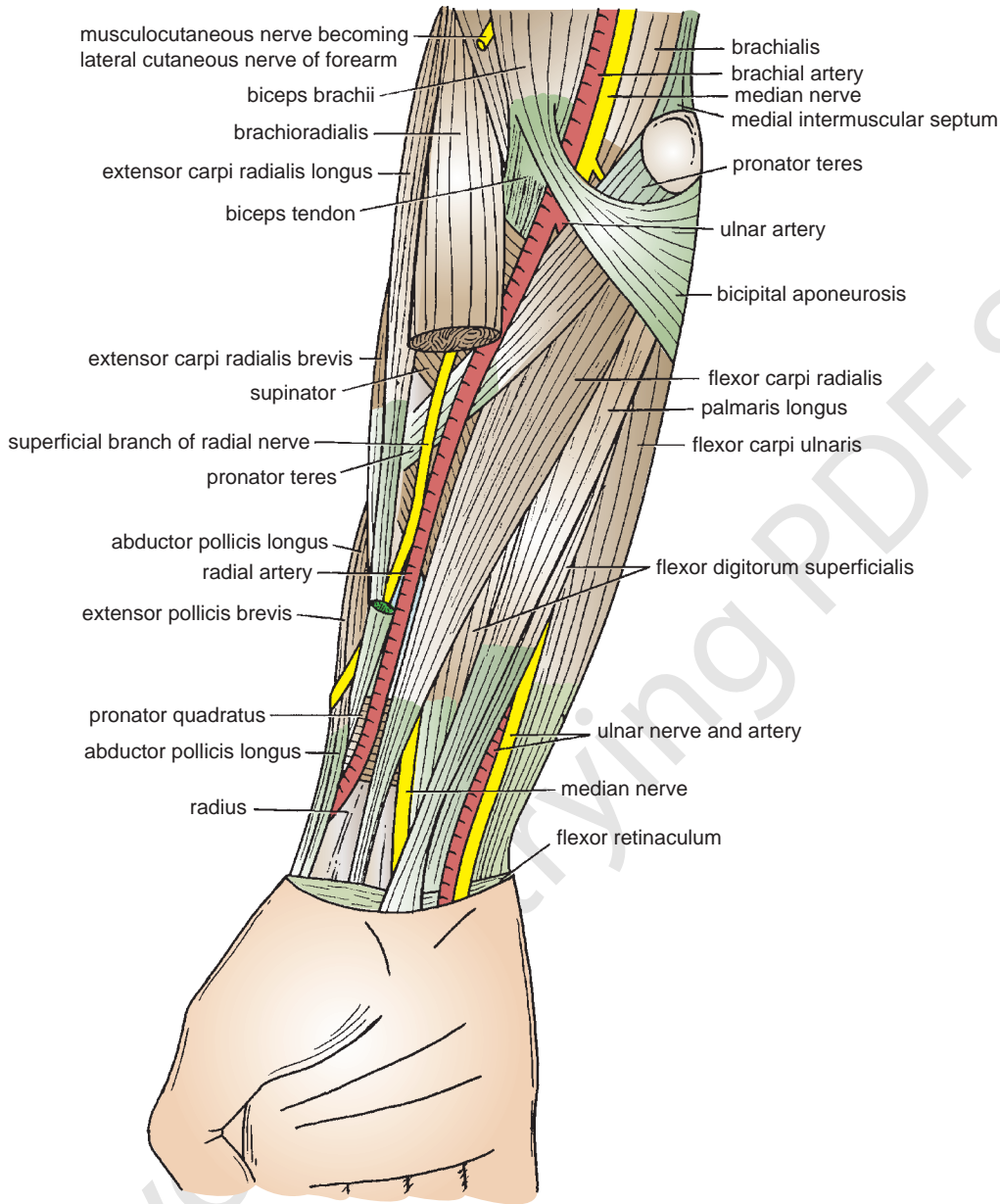


FIGURE 9.58 Anterior view of the forearm. The middle portion of the brachioradialis muscle has been removed to display the superficial branch of the radial nerve and the radial artery.

Branches

- **Muscular branches** to neighboring muscles
- **Recurrent branches** that take part in the arterial anastomosis around the elbow joint (Fig. 9.61)
- **Branches that take part in the arterial anastomosis around the wrist joint**
- The **common interosseous artery**, which arises from the upper part of the ulnar artery and after a brief course divides into the **anterior** and **posterior interosseous arteries** (Fig. 9.61). The interosseous arteries are distributed to the muscles lying in front of and behind

the interosseous membrane; they provide nutrient arteries to the radius and ulna bone.

Radial Artery The radial artery is the smaller of the terminal branches of the brachial artery. It begins in the cubital fossa at the level of the neck of the radius (Figs. 9.58, 9.59, and 9.60). It passes downward and laterally, beneath the brachioradialis muscle and resting on the deep muscles of the forearm. In the middle third of its course, the superficial branch of the radial nerve lies on its lateral side.

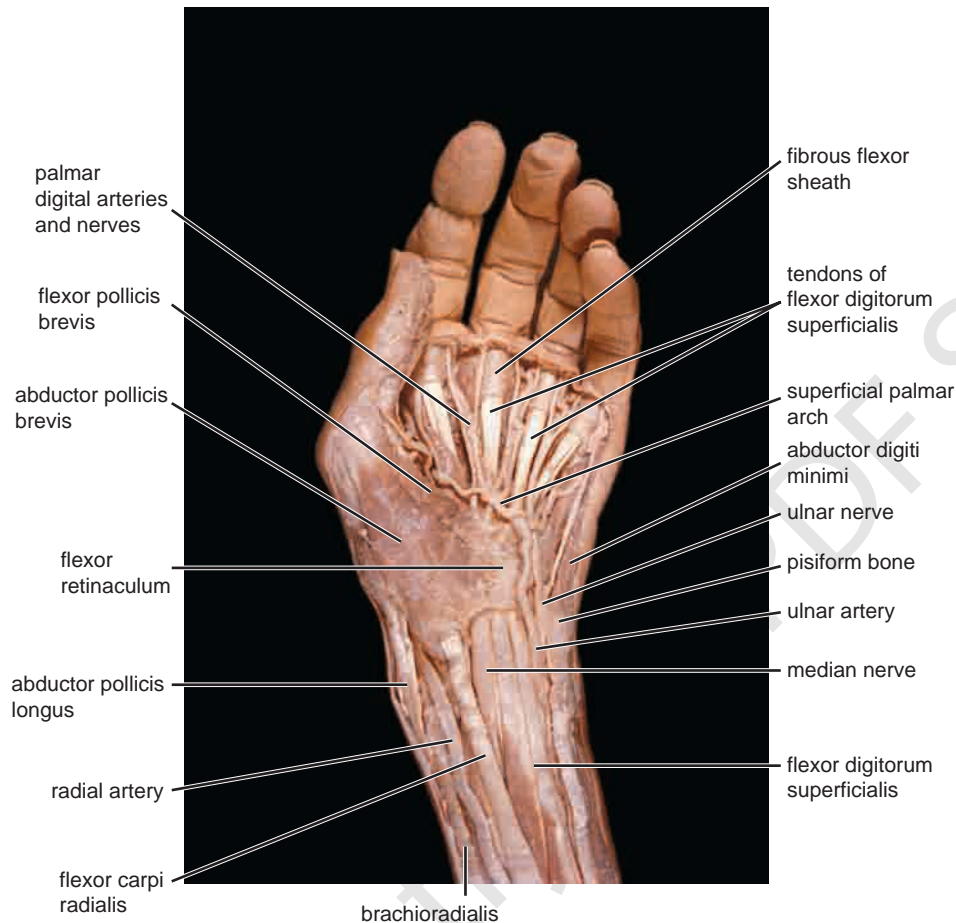


FIGURE 9.59 Dissection of the front of the left forearm and hand showing the superficial structures.

In the distal part of the forearm, the radial artery lies on the anterior surface of the radius and is covered only by skin and fascia. Here, the artery has the tendon of brachioradialis on its lateral side and the tendon of flexor carpi radialis on its medial side (site for taking the radial pulse).

The radial artery leaves the forearm by winding around the lateral aspect of the wrist to reach the posterior surface of the hand (see page 406).

Branches in the Forearm

- **Muscular branches** to neighboring muscles
- **Recurrent branch**, which takes part in the arterial anastomosis around the elbow joint (Fig. 9.60)
- **Superficial palmar branch**, which arises just above the wrist (Fig. 9.60), enters the palm of the hand, and frequently joins the ulnar artery to form the **superficial palmar arch**

Nerves of the Anterior Fascial Compartment of the Forearm

Median Nerve The median nerve leaves the cubital fossa by passing between the two heads of the pronator teres (Fig. 9.60). It continues downward behind the flexor digi-

torum superficialis and rests posteriorly on the flexor digitorum profundus. At the wrist, the median nerve emerges from the lateral border of the flexor digitorum superficialis muscle and lies behind the tendon of the palmaris longus (Figs. 9.58, 9.59, and 9.60). It enters the palm by passing **behind** the flexor retinaculum (see pages 394 and 395).

Branches

- **Muscular branches** in the cubital fossa to the pronator teres, the flexor carpi radialis, the palmaris longus, and the flexor digitorum superficialis (Fig. 9.22)
- **Articular branches** to the elbow joint
- **Anterior interosseous nerve**
- **Palmar cutaneous branch.** This arises in the lower part of the forearm and is distributed to the skin over the lateral part of the palm (Fig. 9.38).

Anterior Interosseous Nerve The anterior interosseous nerve arises from the median nerve as it emerges from between the two heads of the pronator teres. It passes downward on the anterior surface of the interosseous membrane, between the flexor pollicis longus and the flexor digitorum profundus (Fig. 9.61). It ends on the anterior surface of the carpus.

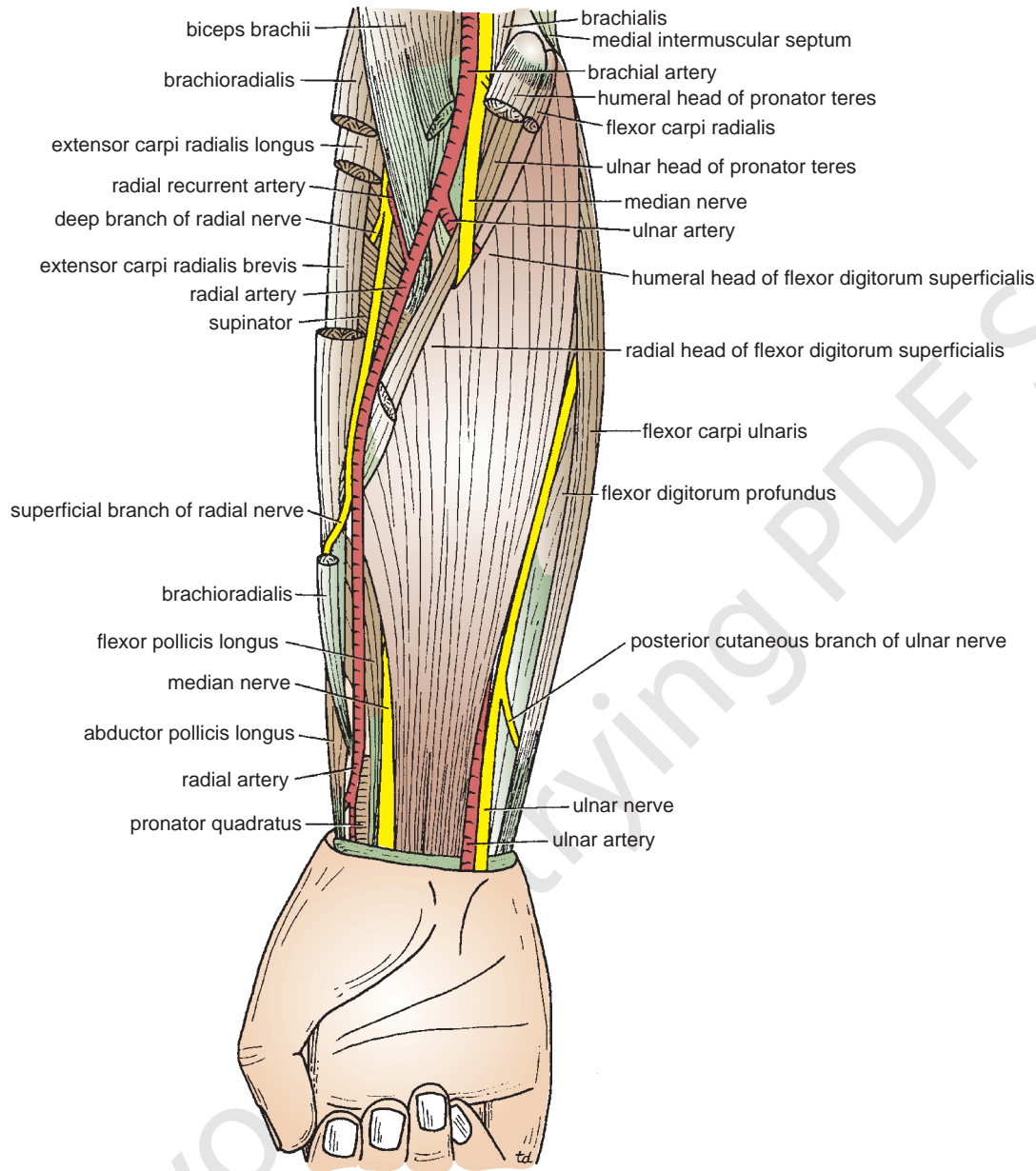


FIGURE 9.60 Anterior view of the forearm. Most of the superficial muscles have been removed to display the flexor digitorum superficialis, median nerve, superficial branch of the radial nerve, and radial artery. Note that the ulnar head of the pronator teres separates the median nerve from the ulnar artery.

Branches

- **Muscular branches** to the flexor pollicis longus, the pronator quadratus, and the lateral half of the flexor digitorum profundus
- **Articular branches** to the wrist and distal radioulnar joints. It also supplies the joints of the hand.

Ulnar Nerve The ulnar nerve (Fig. 9.61) passes from behind the medial epicondyle of the humerus, crosses the medial ligament of the elbow joint, and enters the front of the forearm by passing between the two heads of the flexor carpi ulnaris. It then runs down the forearm between the flexor carpi ulnaris and the flexor digitorum profundus muscles. In the distal two thirds of the forearm, the ulnar

artery lies on the lateral side of the ulnar nerve (Fig. 9.61). At the wrist, the ulnar nerve becomes superficial and lies between the tendons of the flexor carpi ulnaris and flexor digitorum superficialis muscles (Figs. 9.58 and 9.59). The ulnar nerve enters the palm of the hand by passing **in front** of the flexor retinaculum and lateral to the pisiform bone; here, it has the ulnar artery lateral to it (see page 394).

Branches

- **Muscular branches** to the flexor carpi ulnaris and to the medial half of the flexor digitorum profundus (Fig. 9.23)
- **Articular branches** to the elbow joint

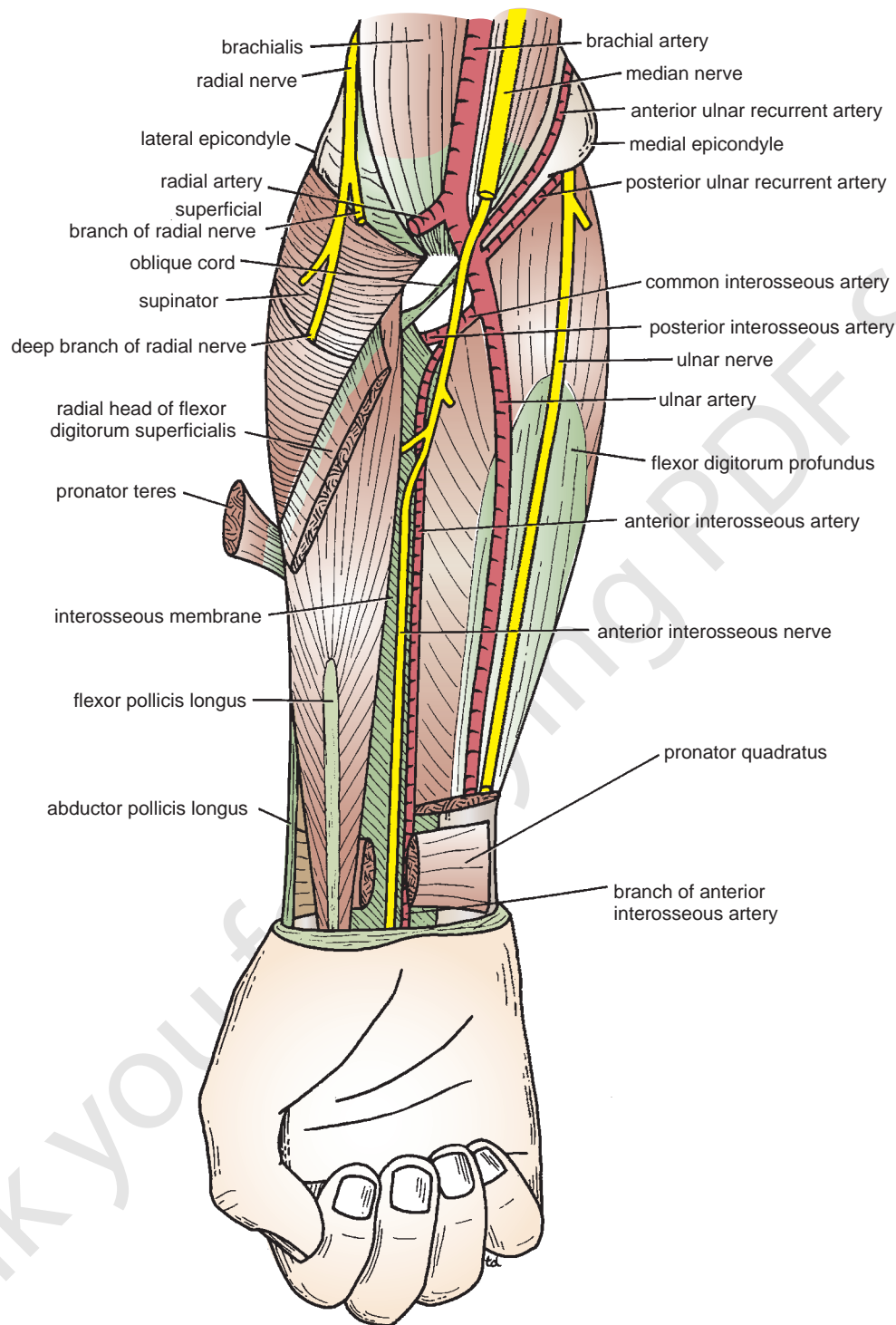


FIGURE 9.61 Anterior view of the forearm showing the deep structures.

- The **palmar cutaneous branch** is a small branch that arises in the middle of the forearm (Fig. 9.38) and supplies the skin over the hypothenar eminence.
- The **dorsal posterior cutaneous branch** is a large branch that arises in the distal third of the forearm. It passes medially between the tendon of the flexor carpi ulnaris and the ulna and is distributed on the posterior surface of the hand and fingers.

Contents of the Lateral Fascial Compartment of the Forearm

The lateral fascial compartment may be regarded as part of the posterior fascial compartment.

- **Muscles:** Brachioradialis and extensor carpi radialis longus
- **Blood supply:** Radial and brachial arteries

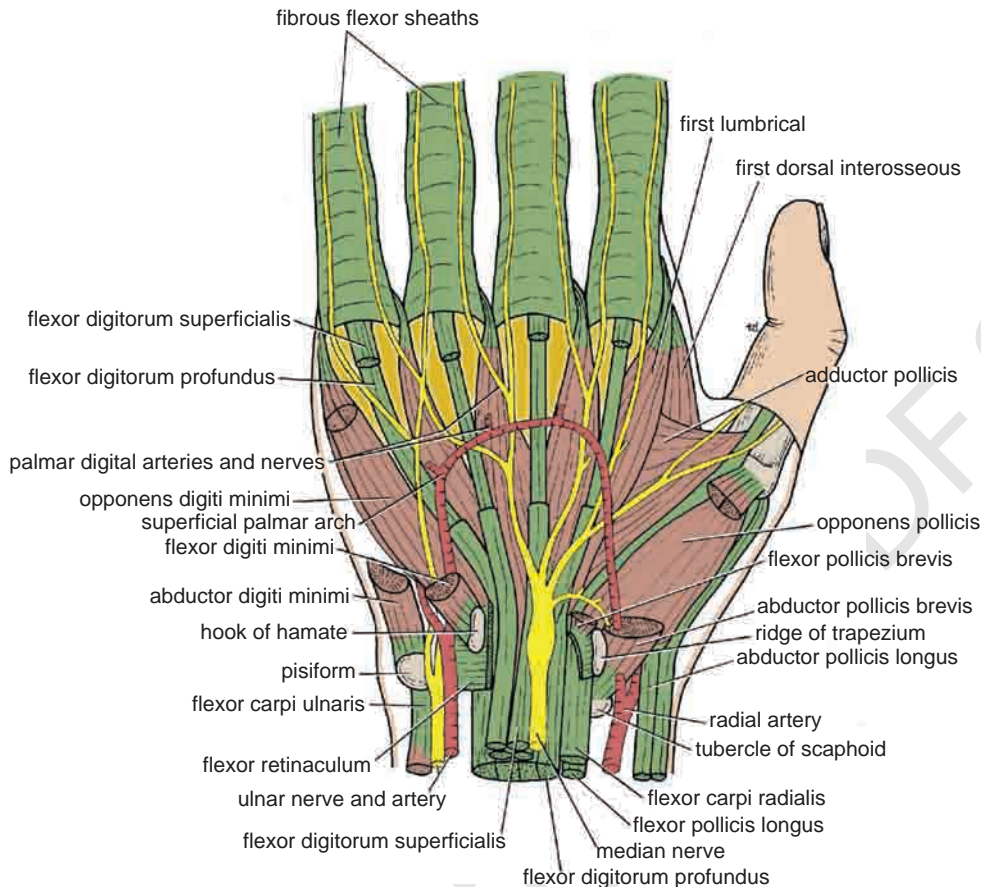


FIGURE 9.62 Anterior view of the palm of the hand. The palmar aponeurosis and the greater part of the flexor retinaculum have been removed to display the superficial palmar arch, the median nerve, and the long flexor tendons. Segments of the tendons of the flexor digitorum superficialis have been removed to show the underlying tendons of the flexor digitorum profundus.

■ Nerve supply to the muscles: Radial nerve

Muscles of the Lateral Fascial Compartment of the Forearm

The muscles of the lateral fascial compartment of the forearm are seen in Figures 9.58 and 9.60 and are described in Table 9.7.

Arteries of the Lateral Compartment of the Forearm

The arterial supply is derived from branches of the radial and brachial arteries.

Nerve of the Lateral Compartment of the Forearm

Radial Nerve The radial nerve pierces the lateral intermuscular septum in the lower part of the arm and passes forward into the cubital fossa (Fig. 9.47). It then passes downward in front of the lateral epicondyle of the humerus, lying between the brachialis on the medial side and the brachioradialis and extensor carpi radialis longus on the lateral side (Fig. 9.60). At the level of the lateral epicondyle, it divides into superficial and deep branches (Figs. 9.60 and 9.61).

Branches

- **Muscular branches** to the brachioradialis, to the extensor carpi radialis longus, and a small branch to the lateral part of the brachialis muscle (Fig. 9.25)
- **Articular branches** to the elbow joint
- **Deep branch of the radial nerve.** This winds around the neck of the radius, within the supinator muscle (Fig. 9.61), and enters the posterior compartment of the forearm (Fig. 9.61).
- **Superficial branch of the radial nerve**

Superficial Branch of the Radial Nerve The superficial branch of the radial nerve is the direct continuation of the nerve after its main stem has given off its deep branch in front of the lateral epicondyle of the humerus (Fig. 9.60). It runs down under cover of the brachioradialis muscle on the lateral side of the radial artery. In the distal part of the forearm, it leaves the artery and passes backward under the tendon of the brachioradialis (Fig. 9.60). It reaches the posterior surface of the wrist, where it divides into terminal branches that supply the skin on the lateral two thirds of the posterior surface of the hand (Fig. 9.38) and the posterior surface over the proximal phalanges of the lateral three

TABLE 9.7 Muscles of the Lateral Fascial Compartment of the Forearm

Muscle	Origin	Insertion	Nerve Supply	Nerve Roots ^a	Action
Brachioradialis	Lateral supracondylar ridge of humerus	Base of styloid process of radius	Radial nerve	C5, 6, 7	Flexes forearm at elbow joint; rotates forearm to the midprone position
Extensor carpi radialis longus	Lateral supracondylar ridge of humerus	Posterior surface of base of second metacarpal bone	Radial nerve	C6, 7	Extends and abducts hand at wrist joint

^aThe predominant nerve root supply is indicated by boldface type.

and a half fingers. The area of skin supplied by the nerve on the dorsum of the hand is variable.

Contents of the Posterior Fascial Compartment of the Forearm

- **Muscles:** The **superficial group** includes the extensor carpi radialis brevis, extensor digitorum, extensor digiti minimi, extensor carpi ulnaris, and anconeus. These muscles possess a common tendon of origin, which is attached to the lateral epicondyle of the humerus. The **deep group** includes the supinator, abductor pollicis longus, extensor pollicis brevis, extensor pollicis longus, and extensor indicis.
- **Blood supply:** Posterior and anterior interosseous arteries
- **Nerve supply to the muscles:** Deep branch of the radial nerve

Muscles of the Posterior Fascial Compartment of the Forearm

The muscles of the posterior fascial compartment are seen in Figures 9.64 and 9.65 and are described in Table 9.8.



CLINICAL NOTES

Stenosing Synovitis of the Abductor Pollicis Longus and Extensor Pollicis Brevis Tendons

As a result of repeated friction between these tendons and the styloid process of the radius, they sometimes become edematous and swell. Later, fibrosis of the synovial sheath produces a condition known as **stenosing tenosynovitis** in which movement of the tendons becomes restricted. Advanced cases require surgical incision along the constricting sheath.

Arteries of the Posterior Fascial Compartment of the Forearm

The **anterior** and **posterior interosseous arteries** arise from the common interosseous artery, a branch of the ulnar artery (Figs. 9.61 and 9.65). They pass downward on the anterior and posterior surfaces of the interosseous

membrane, respectively, and supply the adjoining muscles and bones. They end by taking part in the anastomosis around the wrist joint.



CLINICAL NOTES

Rupture of the Extensor Pollicis Longus Tendon

Rupture of this tendon can occur after fracture of the distal third of the radius. Roughening of the dorsal tubercle of the radius by the fracture line can cause excessive friction on the tendon, which can then rupture. Rheumatoid arthritis can also cause rupture of this tendon.

“Anatomic Snuffbox”

The anatomic snuffbox is a term commonly used to describe a triangular skin depression on the lateral side of the wrist that is bounded medially by the tendon of the extensor pollicis longus and laterally by the tendons of the abductor pollicis longus and extensor pollicis brevis (Fig. 9.64). Its clinical importance lies in the fact that the scaphoid bone is most easily palpated here and that the pulsations of the radial artery can be felt here (Fig. 9.100).



CLINICAL NOTES

Tennis Elbow

Tennis elbow is caused by a partial tearing or degeneration of the origin of the superficial extensor muscles from the lateral epicondyle of the humerus. It is characterized by pain and tenderness over the lateral epicondyle of the humerus, with pain radiating down the lateral side of the forearm; it is common in tennis players, violinists, and housewives.

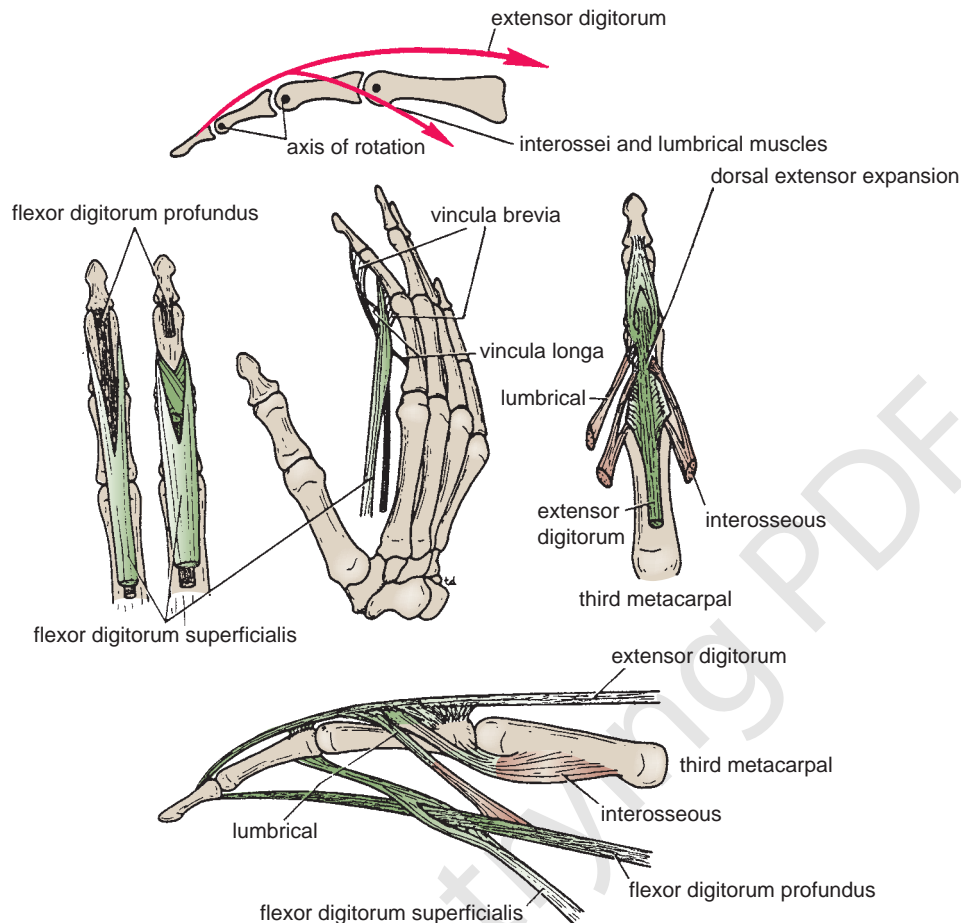


FIGURE 9.63 Insertions of long flexor and extensor tendons in the fingers. Insertions of the lumbrical and interossei muscles are also shown. The uppermost figure illustrates the action of the lumbrical and interossei muscles in flexing the metacarpophalangeal joints and extending the interphalangeal joints.

Nerve of the Posterior Fascial Compartment of the Forearm

Deep Branch of the Radial Nerve The deep branch arises from the radial nerve in front of the lateral epicondyle of the humerus in the cubital fossa (Fig. 9.61). It pierces the supinator and winds around the lateral aspect of the neck of the radius in the substance of the muscle to reach the posterior compartment of the forearm. The nerve descends in the interval between the superficial and deep groups of muscles (Fig. 9.65). It eventually reaches the posterior surface of the wrist joint.

Branches

- **Muscular branches** to the extensor carpi radialis brevis and the supinator, the extensor digitorum, the extensor digiti minimi, the extensor carpi ulnaris, the abductor pollicis longus, the extensor pollicis brevis, the extensor pollicis longus, and the extensor indicis
- **Articular branches** to the wrist and carpal joints