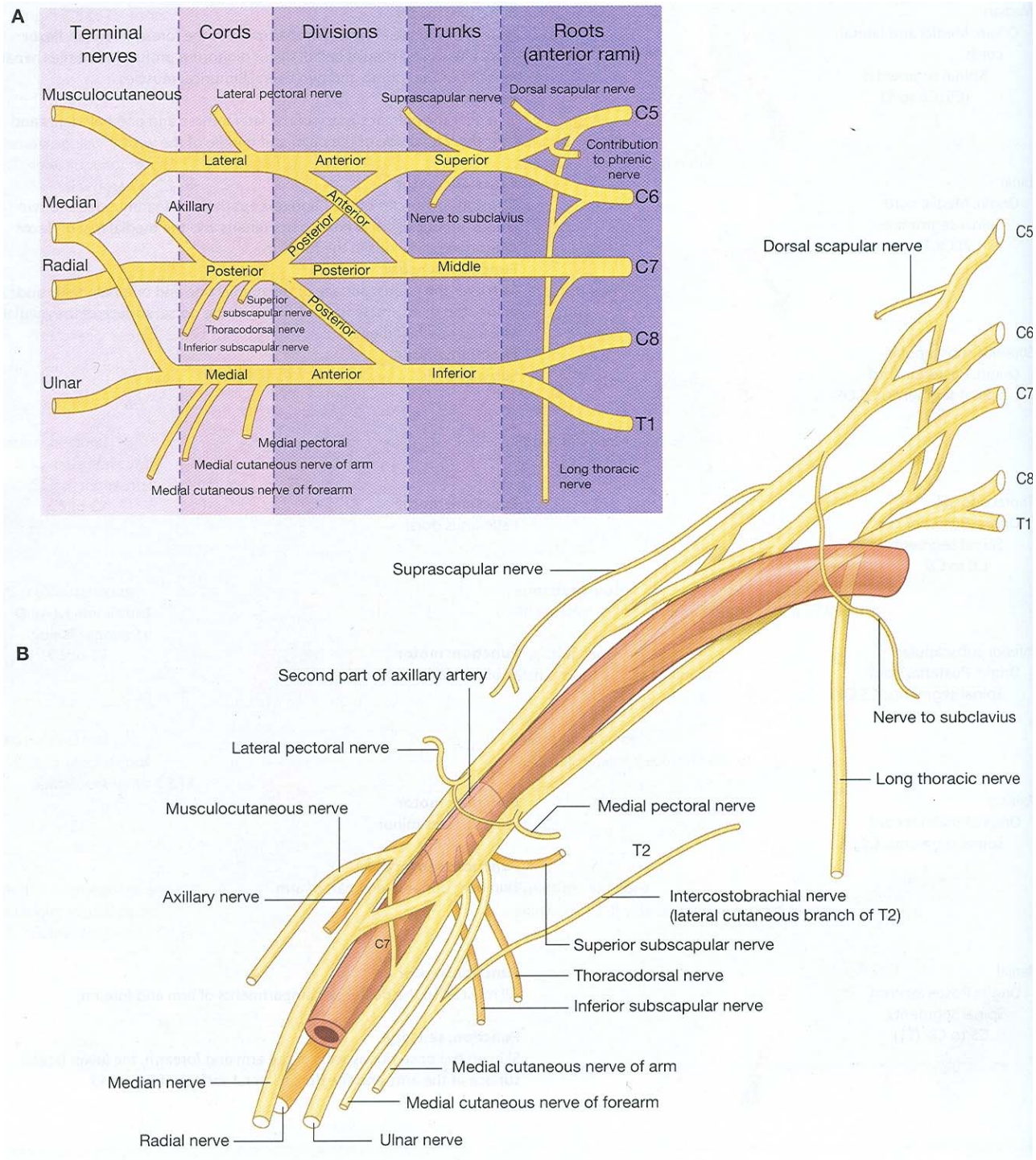
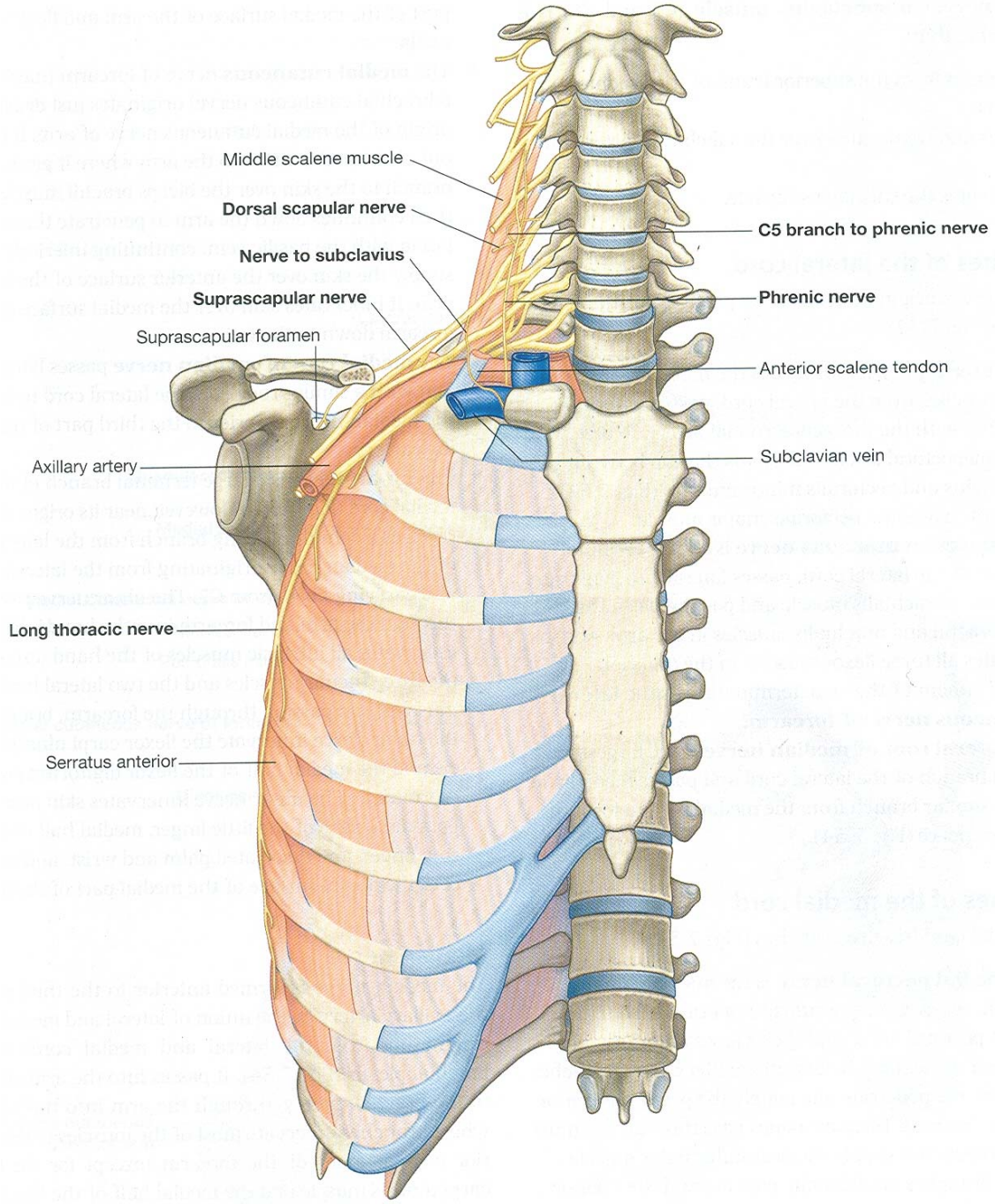
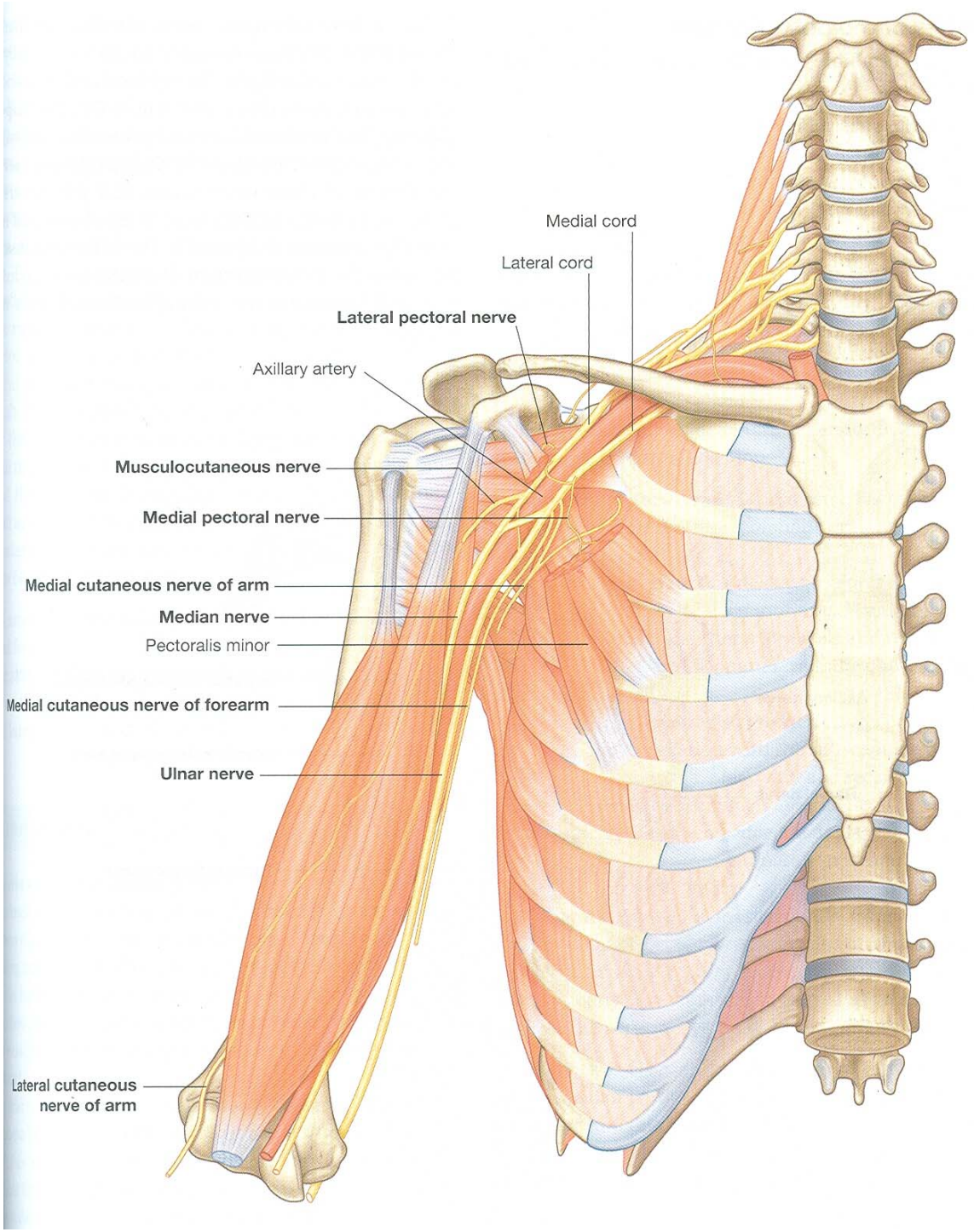
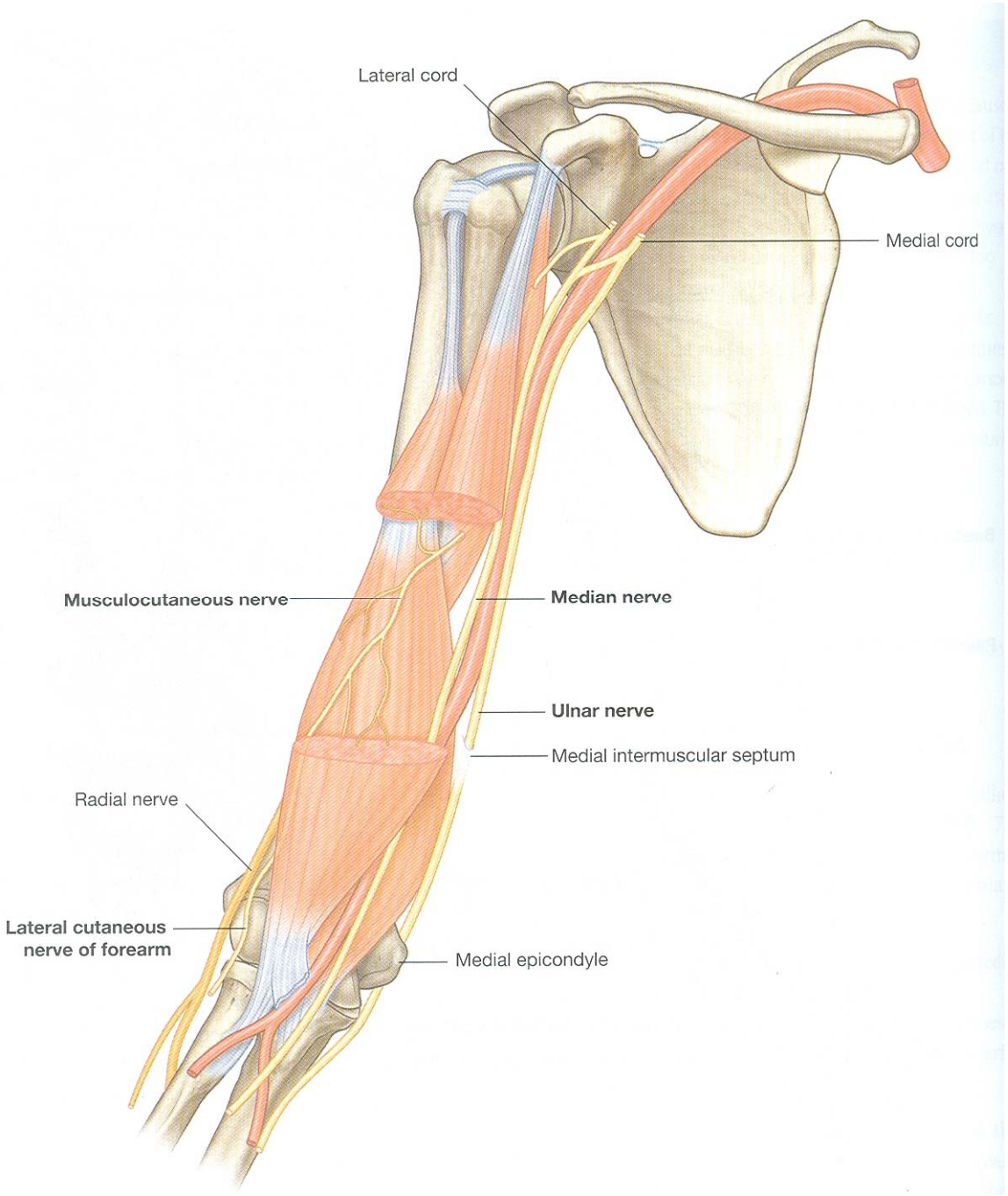
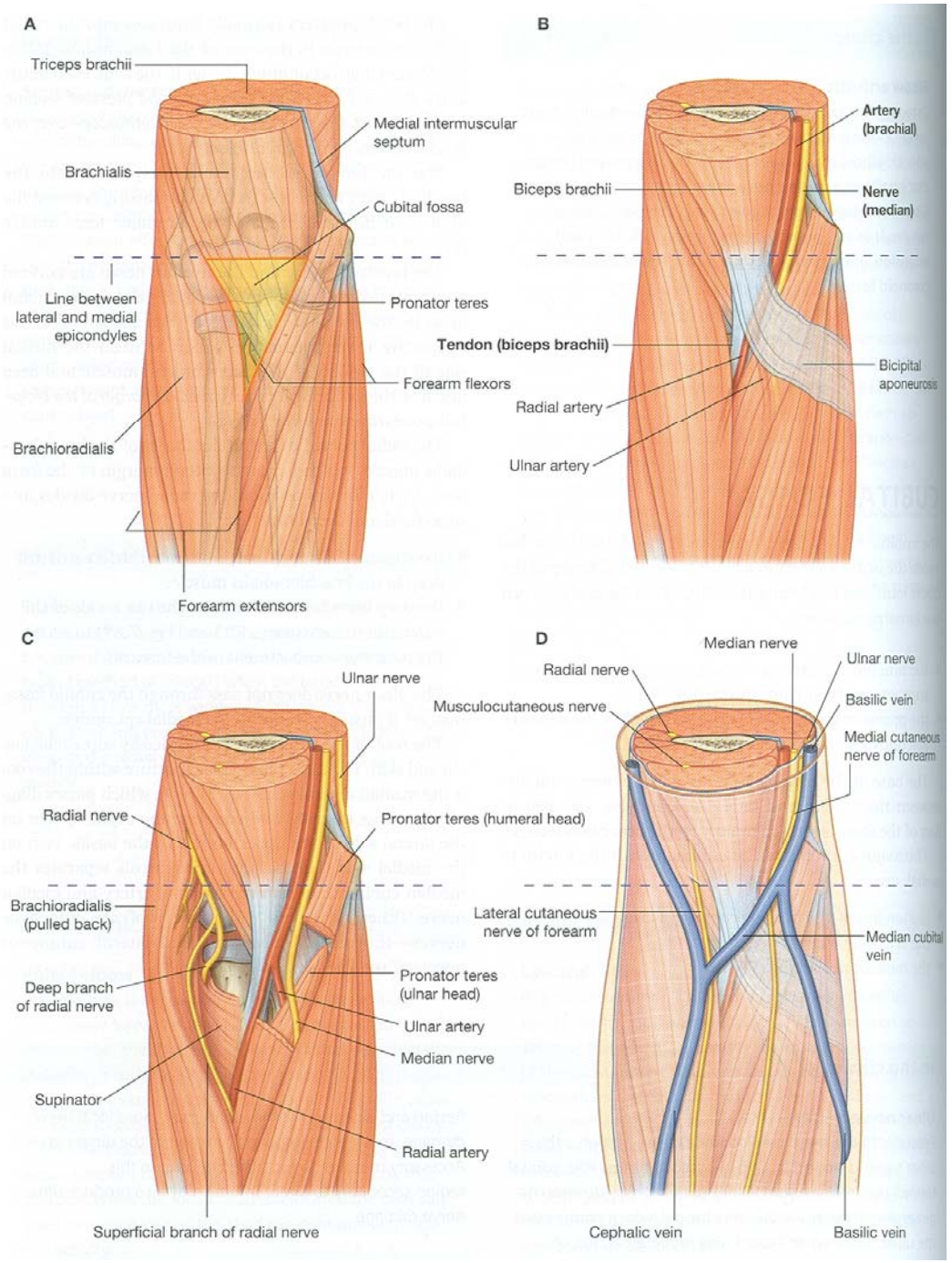

A
Terminal nerves
Cords
Divisions
Trunks
Roots (anterior rami)
Musculocutaneous
Lateral pectoral nerve
Suprascapular nerve
Dorsal scapular nerve
C5
Lateral
Anterior
Superior
Contribution to phrenic nerve
C6
Median
Axillary
Anterior
Posterior
Nerve to subclavius
Radial
Posterior
Posterior
Middle
C7
Superior subscapular nerve
Posterior
Thoracodorsal nerve
Inferior subscapular nerve
C8
Ulnar
Medial
Anterior
Inferior
T1
Medial pectoral
Medial cutaneous nerve of arm
Medial cutaneous nerve of forearm
Long thoracic nerve
B
Dorsal scapular nerve
C5
C6
C7
C8
T1
Suprascapular nerve
Second part of axillary artery
Nerve to subclavius
Lateral pectoral nerve
Long thoracic nerve
Musculocutaneous nerve
Medial pectoral nerve
T2
Axillary nerve
Intercostobrachial nerve
(lateral cutaneous branch of T2)
C7
Superior subscapular nerve
Thoracodorsal nerve
Inferior subscapular nerve
Medial cutaneous nerve of arm
Median nerve
Medial cutaneous nerve of forearm
Radial nerve
Ulnar nerve

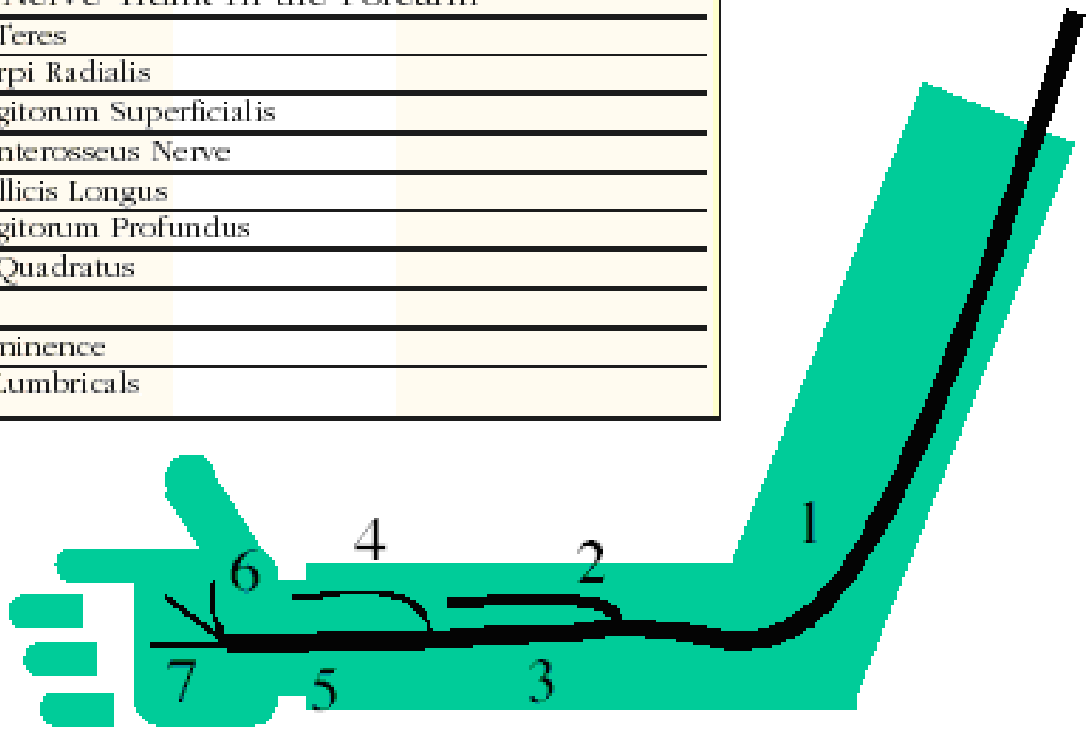

Middle scalene muscle
Dorsal scapular nerve
Nerve to subclavius
Suprascapular nerve
Suprascapular foramen
Axillary artery
Long thoracic nerve
Serratus anterior
C5 branch to phrenic nerve
Phrenic nerve
Anterior scalene tendon
Subclavian vein


Medial cord
Lateral cord
Lateral pectoral nerve
Axillary artery
Musculocutaneous nerve
Medial pectoral nerve
Medial cutaneous nerve of arm
Median nerve
Pectoralis minor
Medial cutaneous nerve of forearm
Ulnar nerve
Lateral cutaneous nerve of arm


Lateral cord
Medial cord
Musculocutaneous nerve
Median nerve
Ulnar nerve
Medial intermuscular septum
Radial nerve
Lateral cutaneous nerve of forearm
Medial epicondyle

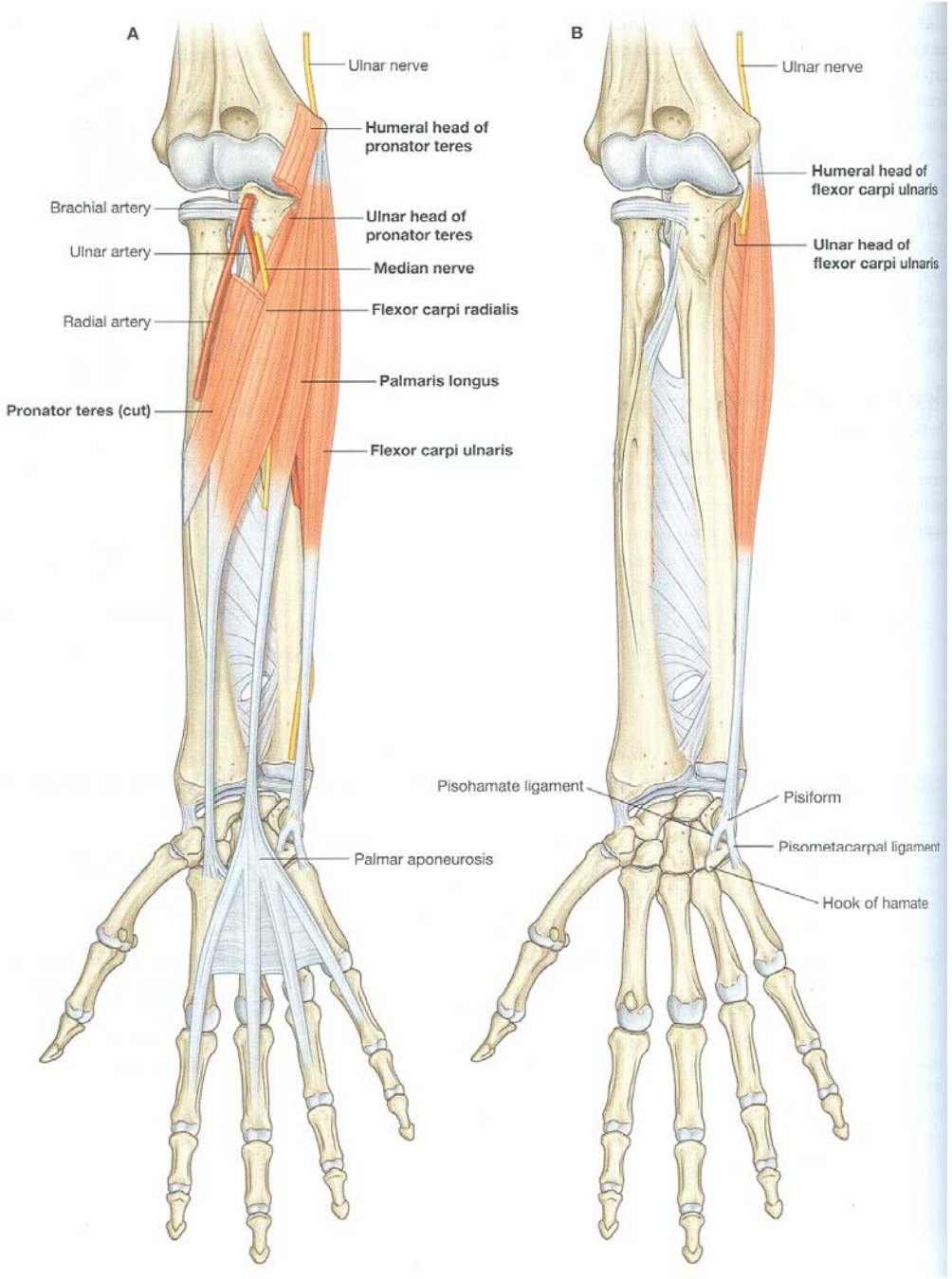

A
Triceps brachii
Medial intermuscular septum
Brachialis
Cubital fossa
Line between lateral and medial epicondyles
Pronator teres
Forearm flexors
Brachioradialis
Forearm extensors
B
Artery (brachial)
Biceps brachii
Nerve (median)
Tendon (biceps brachii)
Bicipital aponeurosis
Radial artery
Ulnar artery
C
Ulnar nerve
Radial nerve
Pronator teres (humeral head)
Brachioradialis (pulled back)
Deep branch of radial nerve
Pronator teres (ulnar head)
Ulnar artery
Median nerve
Supinator
Radial artery
Superficial branch of radial nerve
D
Median nerve
Radial nerve
Ulnar nerve
Musculocutaneous nerve
Basilic vein
Medial cutaneous nerve of forearm
Lateral cutaneous nerve of forearm
Median cubital vein
Cephalic vein
Basilic vein

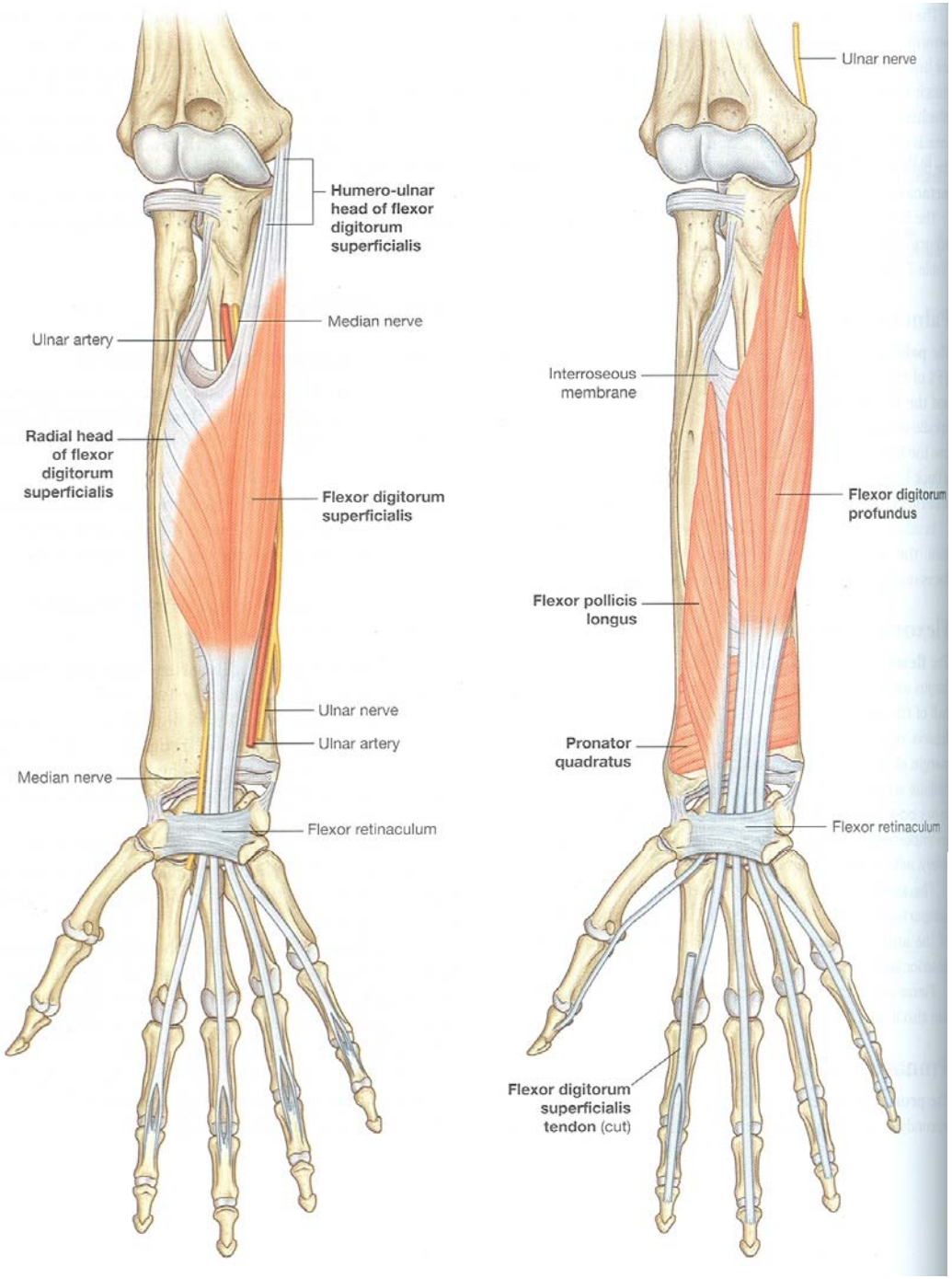
Median Nerve Trunk In the Forearm
Pronator Teres
Flexor Carpi Radialis
Flexor Digitorum Superficialis
Anterior Interosseus Nerve
Flexor Pollicis Longus
Flexor Digitorum Profundus
Pronator Quadratus
Hand
Thenar Eminence
Lateral 2 Lumbricals

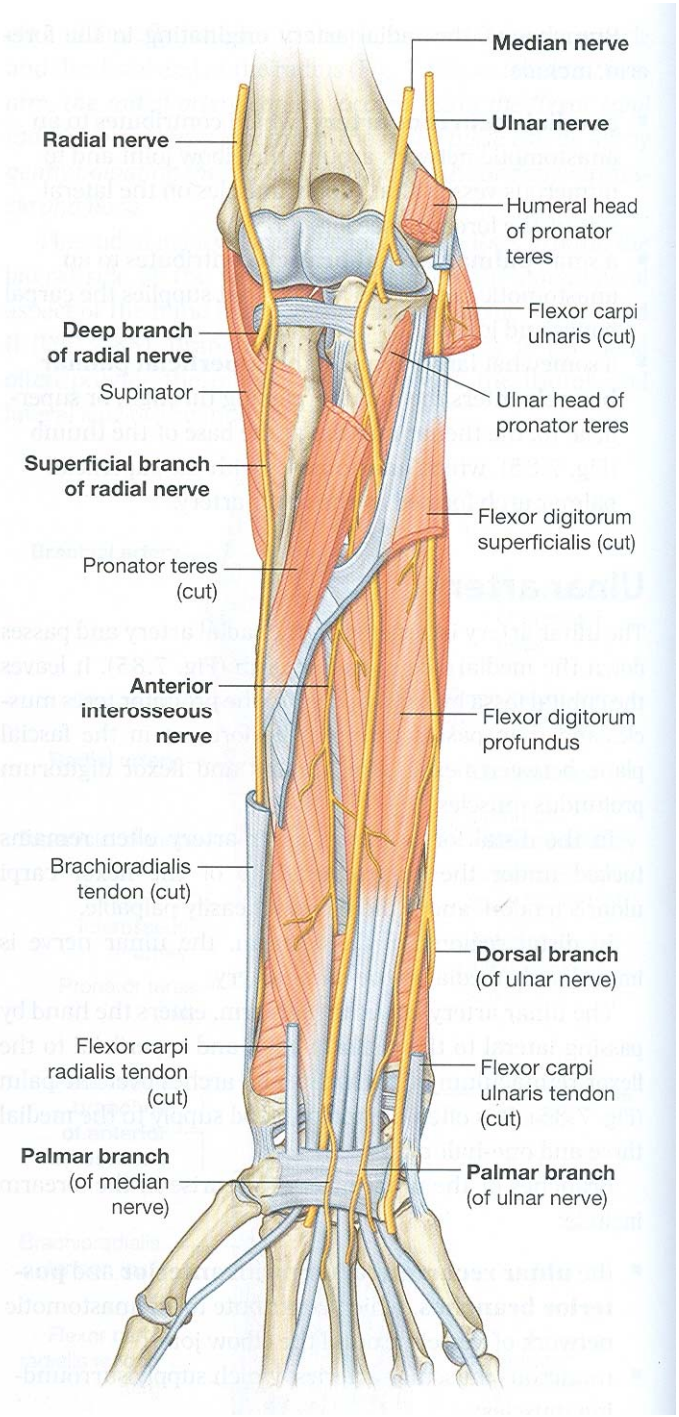


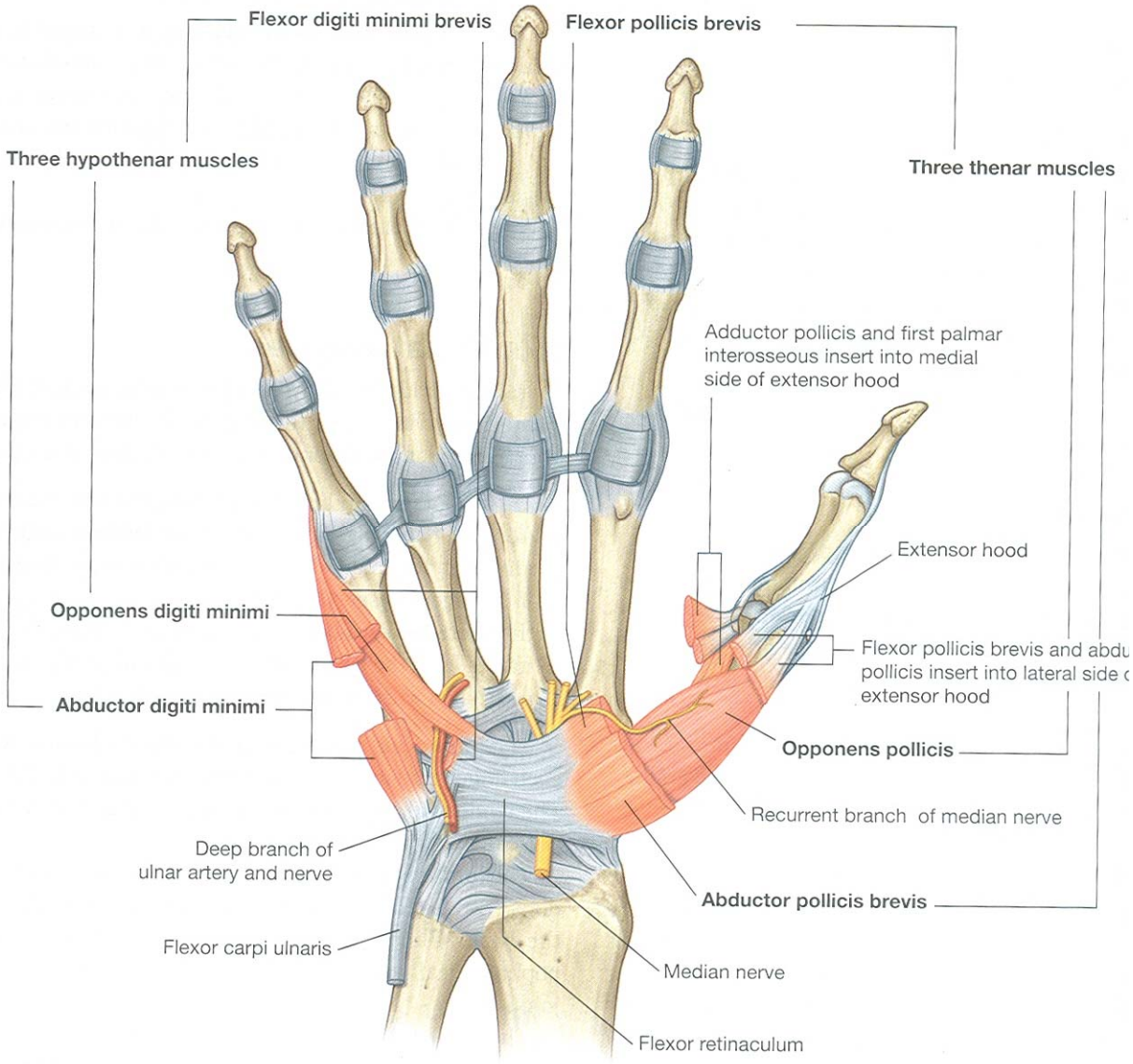
Branches of the Median Nerve

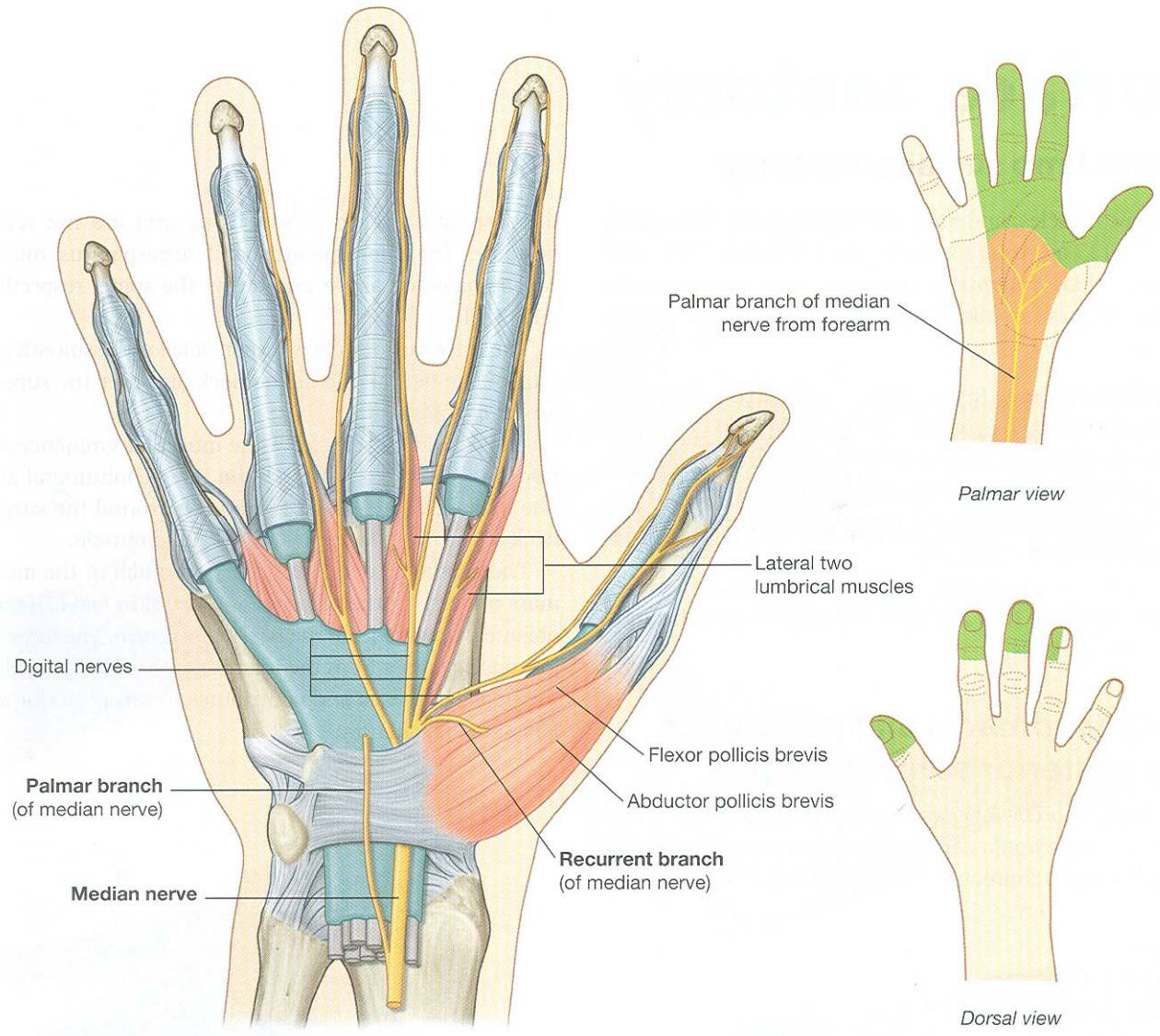
1. Branches to Pronator Teres, Palmaris Longus, Flexor Carpi Radialis, Flexor Digitorum, Superficialis
2. Anterior Interosseus
3. Nerve passes between flexor digitorum superficialis and flexor digitorum profundus.
4. Palmar cutaneous branch
5. Nerve in carpal tunnel
6. Branch to thenar eminence
7. Branches to lumbrical and cutaneous branches to 3 1/2 digits.


A
Ulnar nerve
Humeral head of pronator teres
Brachial artery
Ulnar head of pronator teres
Ulnar artery
Median nerve
Radial artery
Flexor carpi radialis
Palmaris longus
Pronator teres (cut)
Flexor carpi ulnaris
Palmar aponeurosis
B
Ulnar nerve
Humeral head of flexor carpi ulnaris
Ulnar head of flexor carpi ulnaris
Pisohamate ligament
Pisiform
Pisometacarpal ligament
Hook of hamate


Humero-ulnar head of flexor digitorum superficialis
Median nerve
Ulnar artery
Radial head of flexor digitorum superficialis
Flexor digitorum superficialis
Ulnar nerve
Ulnar artery
Median nerve
Flexor retinaculum
Ulnar nerve
Interroseous membrane
Flexor digitorum profundus
Flexor pollicis longus
Pronator quadratus
Flexor retinaculum
Flexor digitorum superficialis tendon (cut)


Median nerve
Ulnar nerve
Radial nerve
Humeral head of pronator teres
Flexor carpi ulnaris (cut)
Deep branch of radial nerve
Supinator
Ulnar head of pronator teres
Superficial branch of radial nerve
Flexor digitorum superficialis (cut)
Pronator teres (cut)
Anterior interosseous nerve
Flexor digitorum profundus
Brachioradialis tendon (cut)
Dorsal branch (of ulnar nerve)
Flexor carpi radialis tendon (cut)
Flexor carpi ulnaris tendon (cut)
Palmar branch (of median nerve)
Palmar branch (of ulnar nerve)


Flexor digiti minimi brevis
Flexor pollicis brevis
Three hypothenar muscles
Three thenar muscles
Adductor pollicis and first palmar interosseous insert into medial side of extensor hood
Extensor hood
Opponens digiti minimi
Flexor pollicis brevis and abdu
pollicis insert into lateral side
extensor hood
Abductor digiti minimi
Opponens pollicis
Recurrent branch of median nerve
Deep branch of ulnar artery and nerve
Abductor pollicis brevis
Flexor carpi ulnaris
Median nerve
Flexor retinaculum


Palmar branch of median nerve from forearm
Palmar view
Lateral two lumbrical muscles
Digital nerves
Flexor pollicis brevis
Abductor pollicis brevis
Palmar branch (of median nerve)
Recurrent branch (of median nerve)
Median nerve
Dorsal view

Situation of innervated muscles	Muscles	Effects of paralysis by nerve destruction
Shoulder	Nil	
Arm	Nil	
Forearm	Flexor carpi radialis Pronator teres Pronator quadratus* Flexor pollicis longus*	Weakened wrist flexion with ulnar deviation (flexor carpi ulnaris) *Pronation lost* Flexion of thumb lost at IP and weakened at CM & MP if only anterior interosseous nerve destroyed (flexor pollicis brevis, opponens pollicis). If total median nerve is destroyed above elbow, then thumb flexion is lost in all joints
Hand	Flexor digitorum profundus, lateral half* Flexor digitorum superficialis	DIP flexion, lost, index and middle PIP flexion lost, index and middle PIP flexion weak, ring and little (flexor digitorum profundus)
	Lumbricals, lateral two	MP flexion weak all fingers: index and middle (interossei only); ring (flexor digitorum profundus, lumbrical, interossei); little (flexor digitorum profundus, flexor digiti minimi, interosseous) IP extension weakened, index and middle (ext. digitorum and indicis, interossei)
	Abductor pollicis brevis Flexor pollicis brevis Opponens pollicis	CM & MP of thumb, weakened flexion (flexor pollicis longus) and abduction (abductor pollicis longus) *Opposition of thumb lost*

compression

-at elbow: supracondylar ligament

-at forearm: prox. Arch of fl.dig.super.

Trauma : any where along its course

axilla, # shaft

acute copression: bleeding into the forearm or a/v fistulas in dialysis

Entrapment syndromes

- carpal tunnel syndrome

Anterior interosseus syndrome

- Pronator syndrome

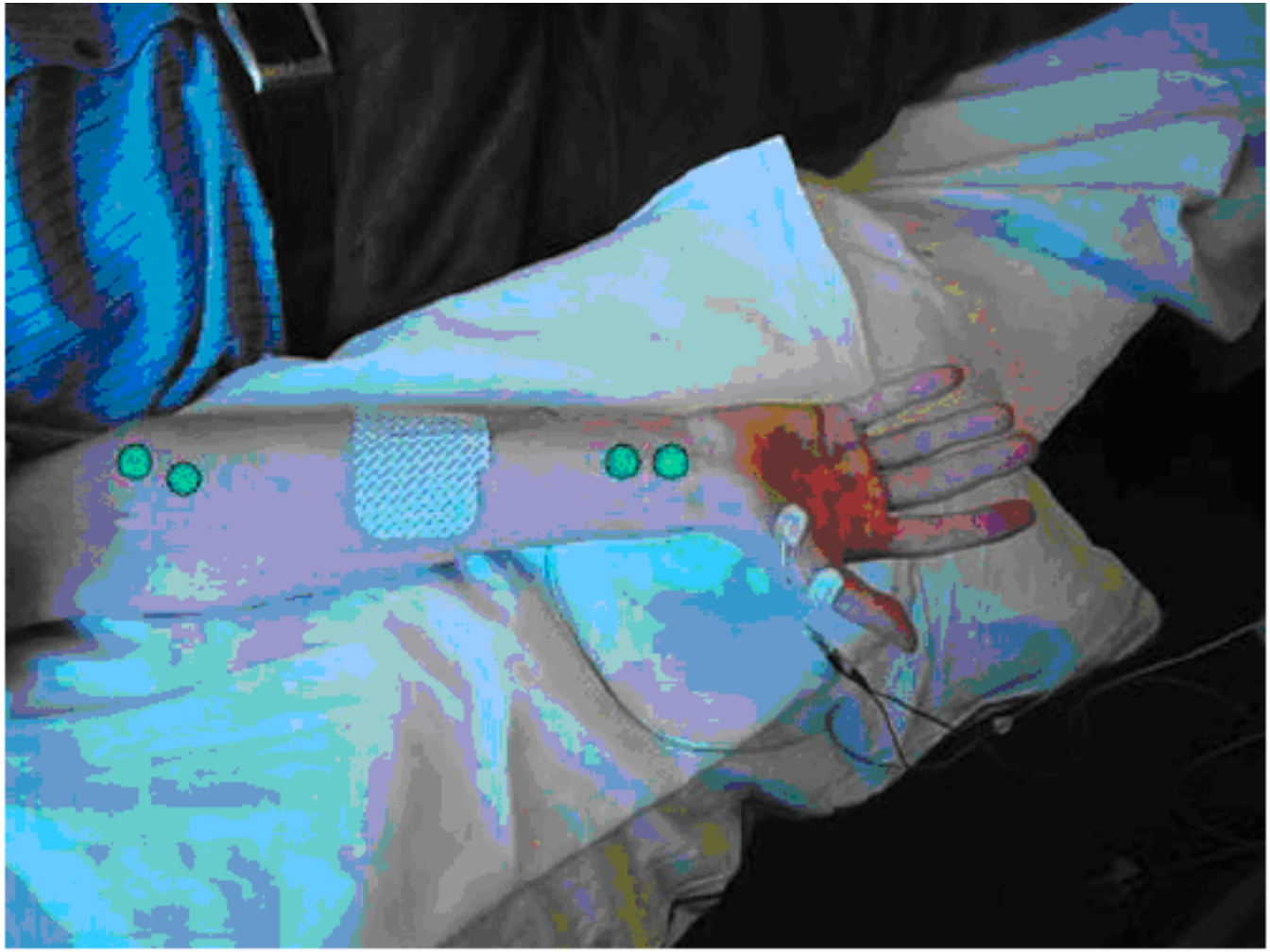


Figure 1: Set up for Median motor study, electrodes are placed over the abductor pollicis brevis (APB), the nerve is stimulated at the wrist and elbow (green markers).

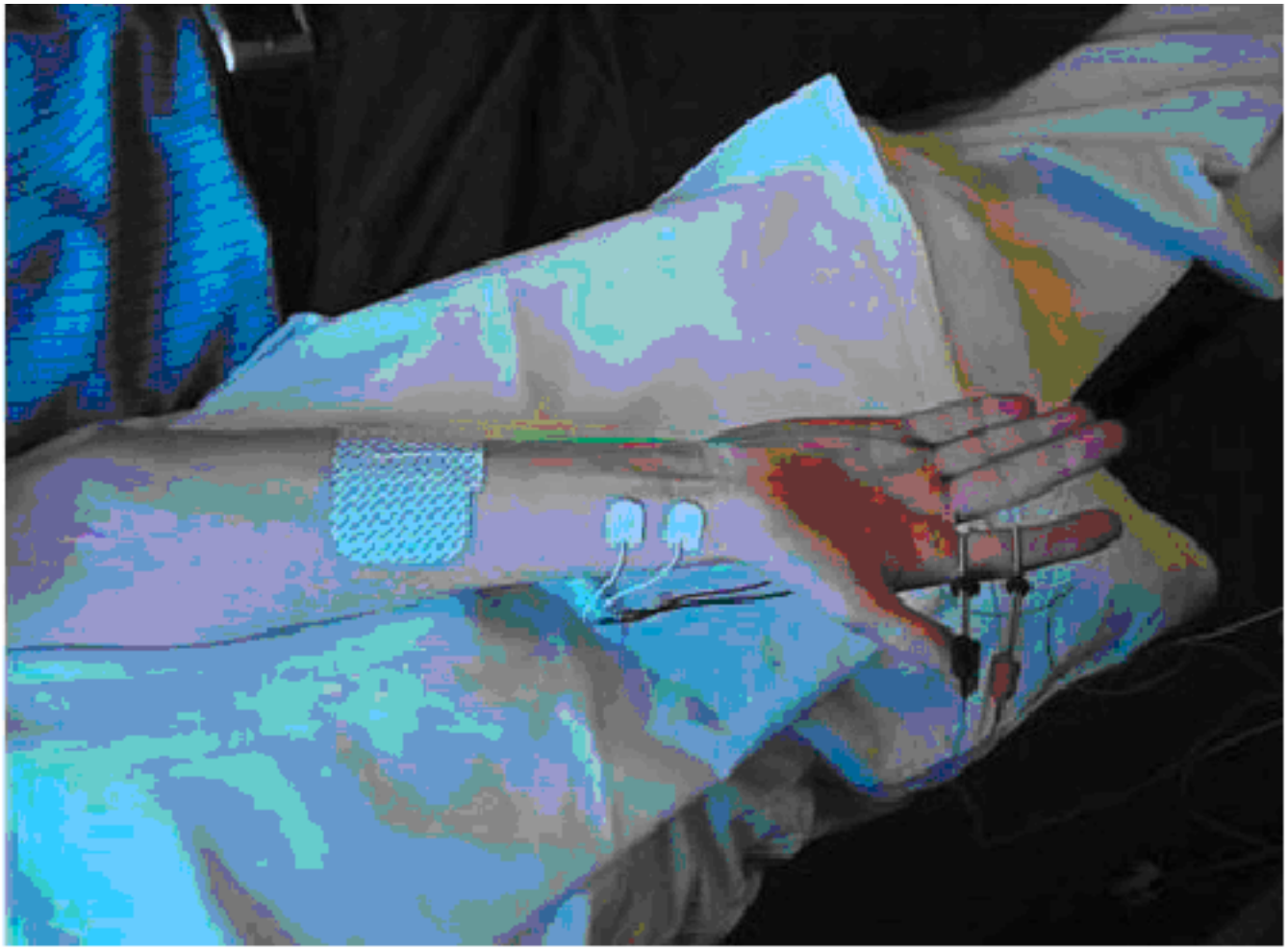


Figure 2: Set up for median sensory study, digital nerves are stimulated with ring electrodes and the response is recorded radial to the palmaris tendon.

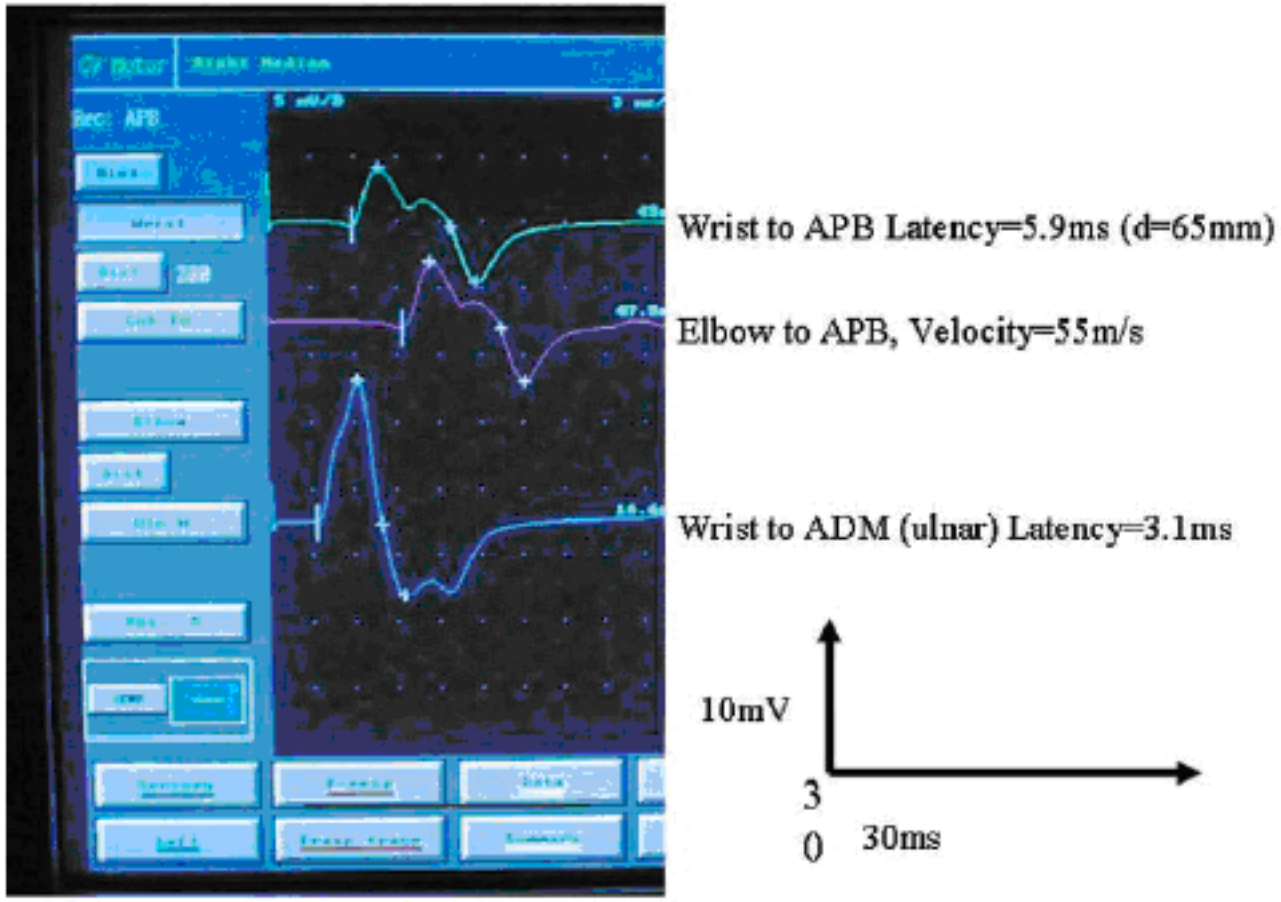


Figure 3: Median motor study in carpal tunnel syndrome, median motor conduction is delayed across the carpal tunnel, note the difference in latency between the distal median motor study and the normal distal ulnar study, median conduction in the forearm is within normal limits.

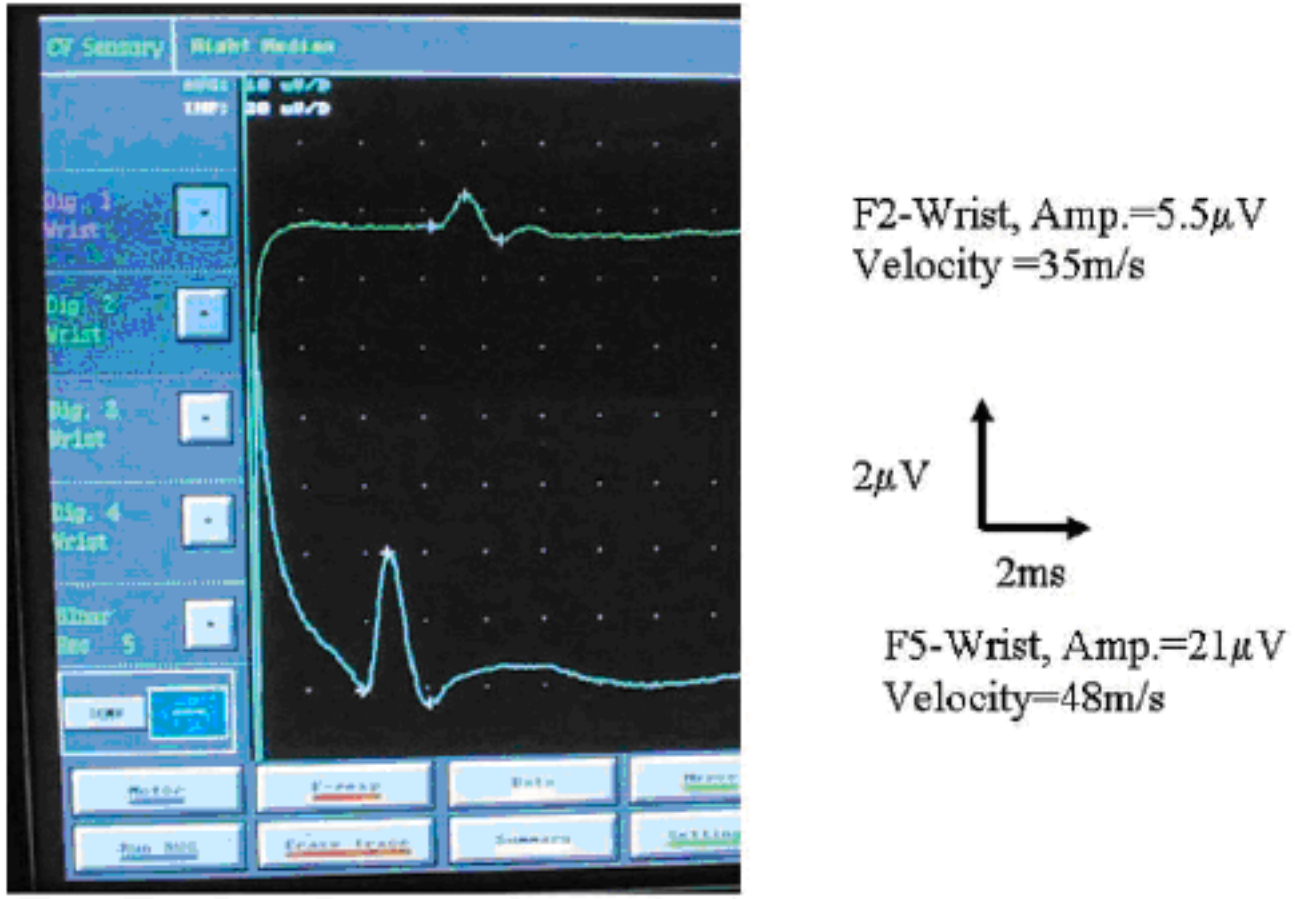


Figure 4: Median sensory study in carpal tunnel syndrome, note the slowing and the reduction in amplitude in the median sensory action potential compared with the normal ulnar sensory action potential.

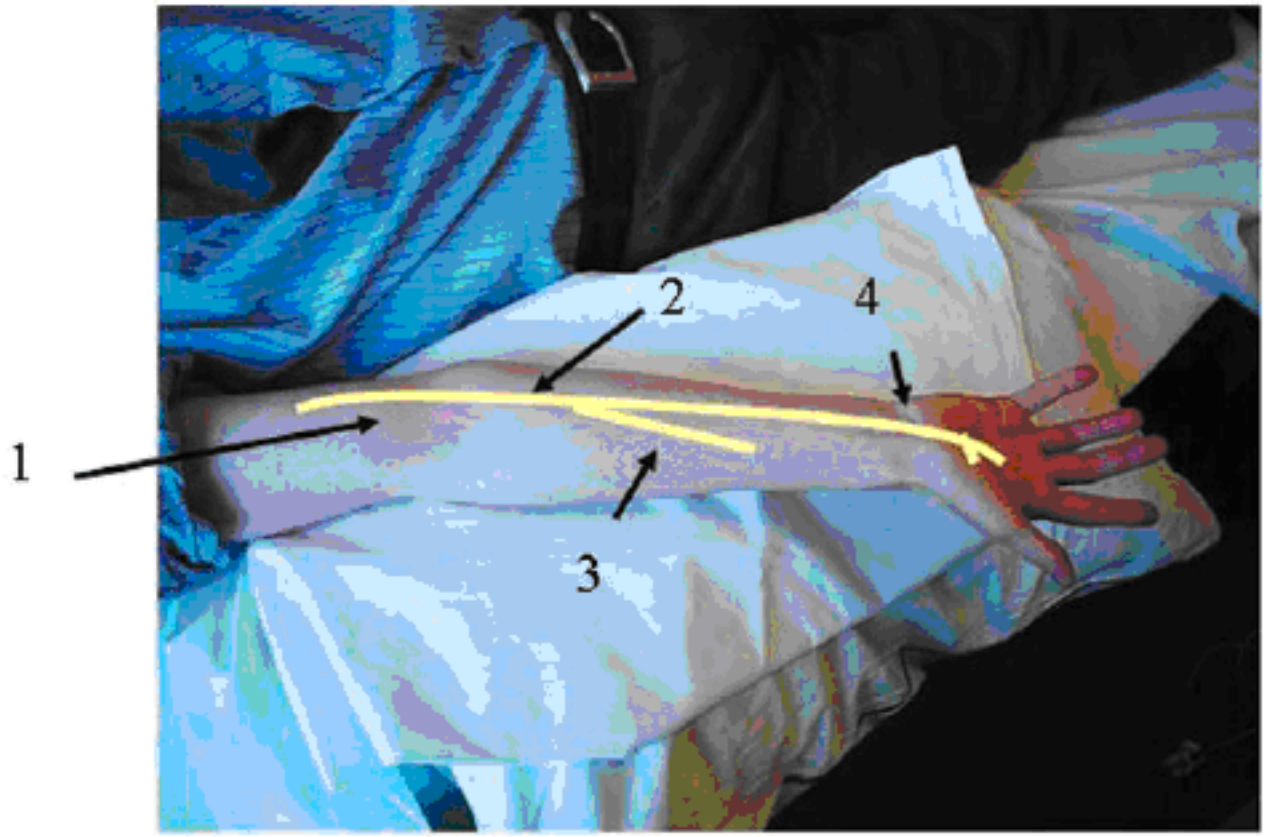


Figure 5: Four sites of median nerve entrapment, 1 Ligament of Struthers, 2 Pronator Teres, 3 Anterior interosseus nerve, 4 Carpal Tunnel.