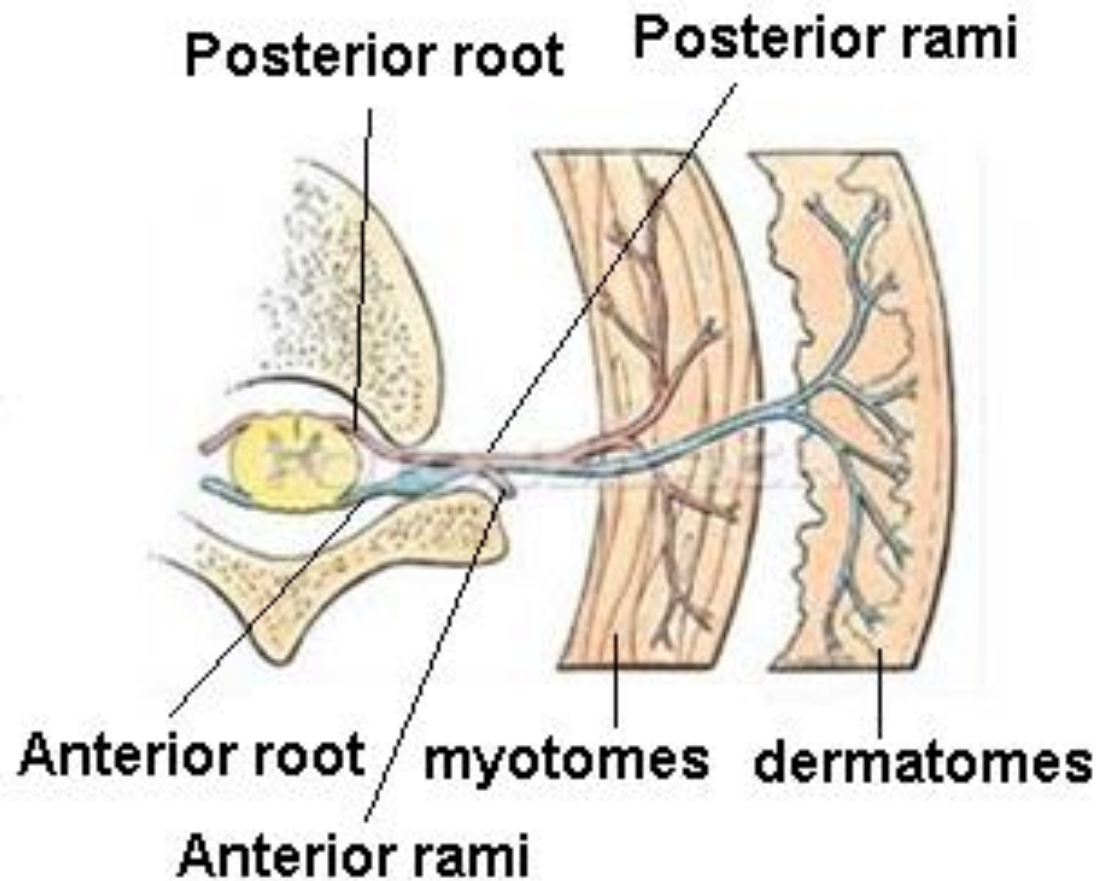


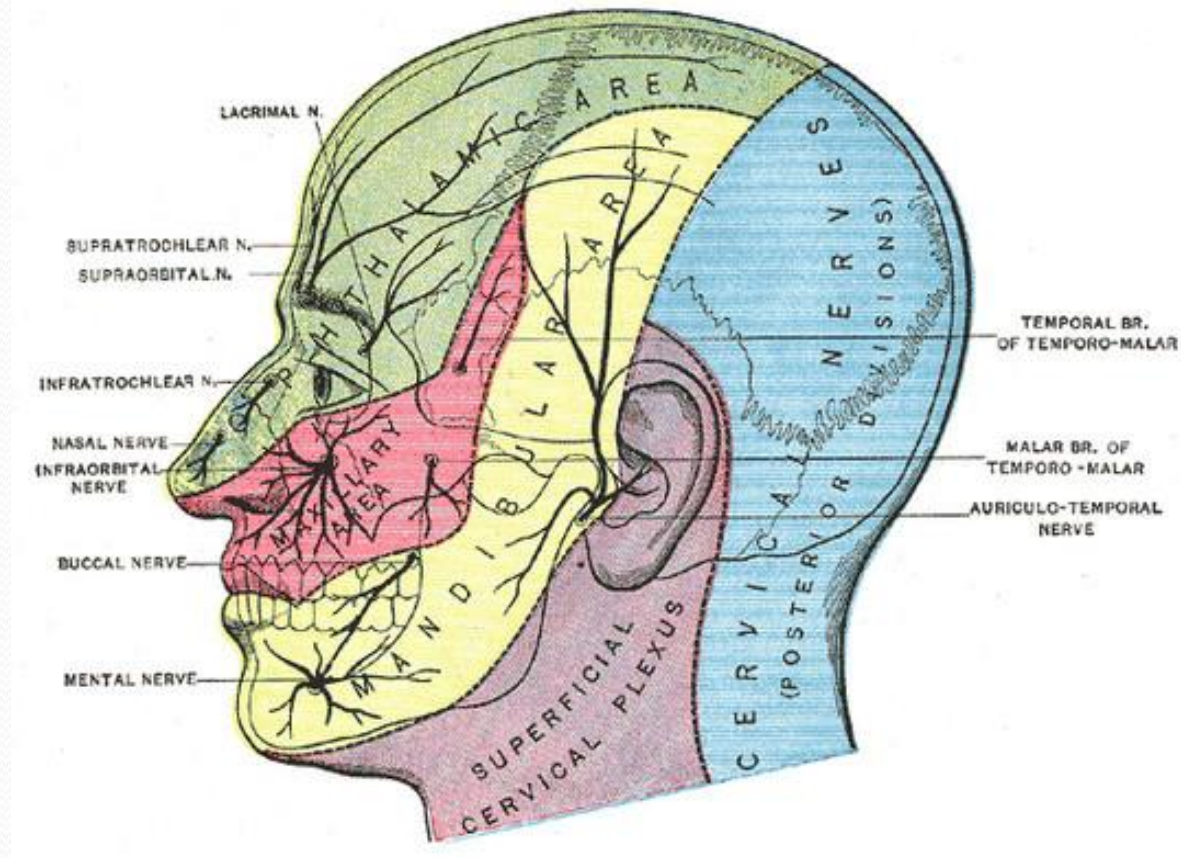
Peripheral Nerves of Upper Extremity

Dermatomes / myotomes



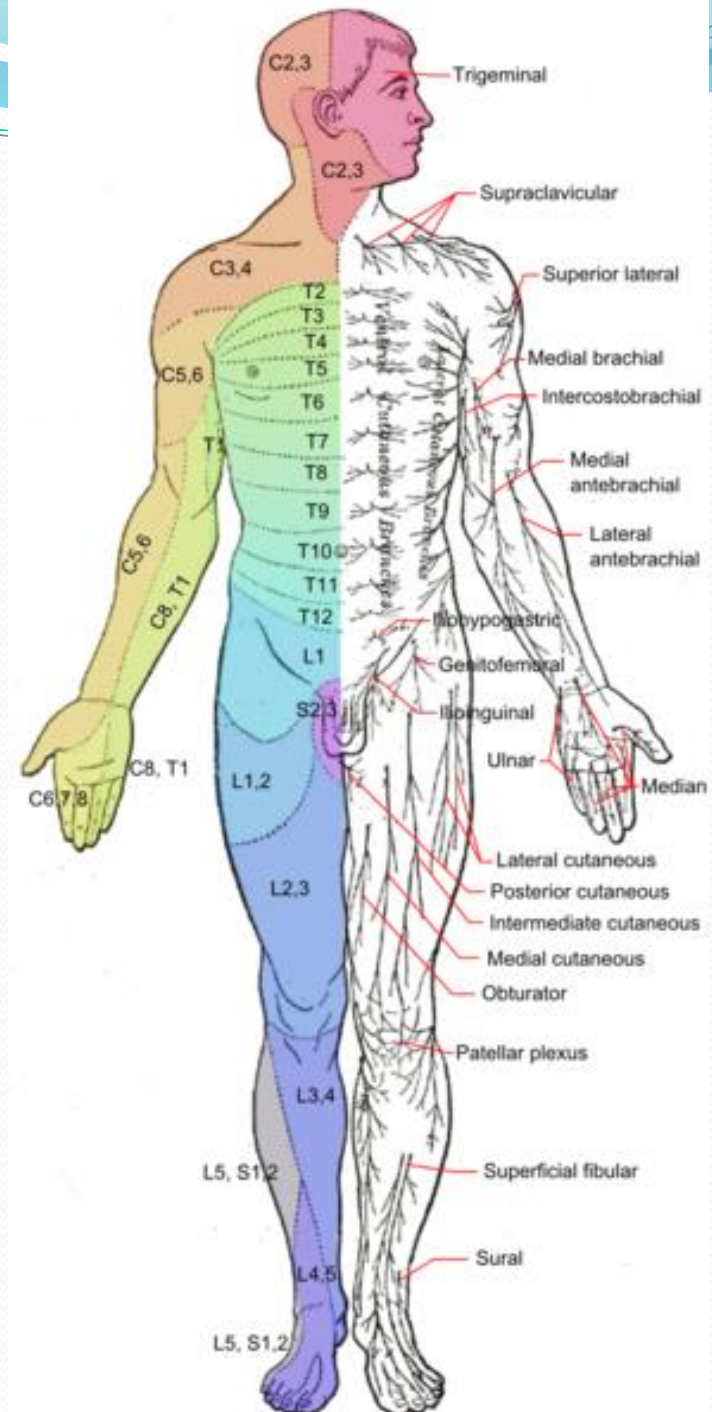
Head Dermatomes

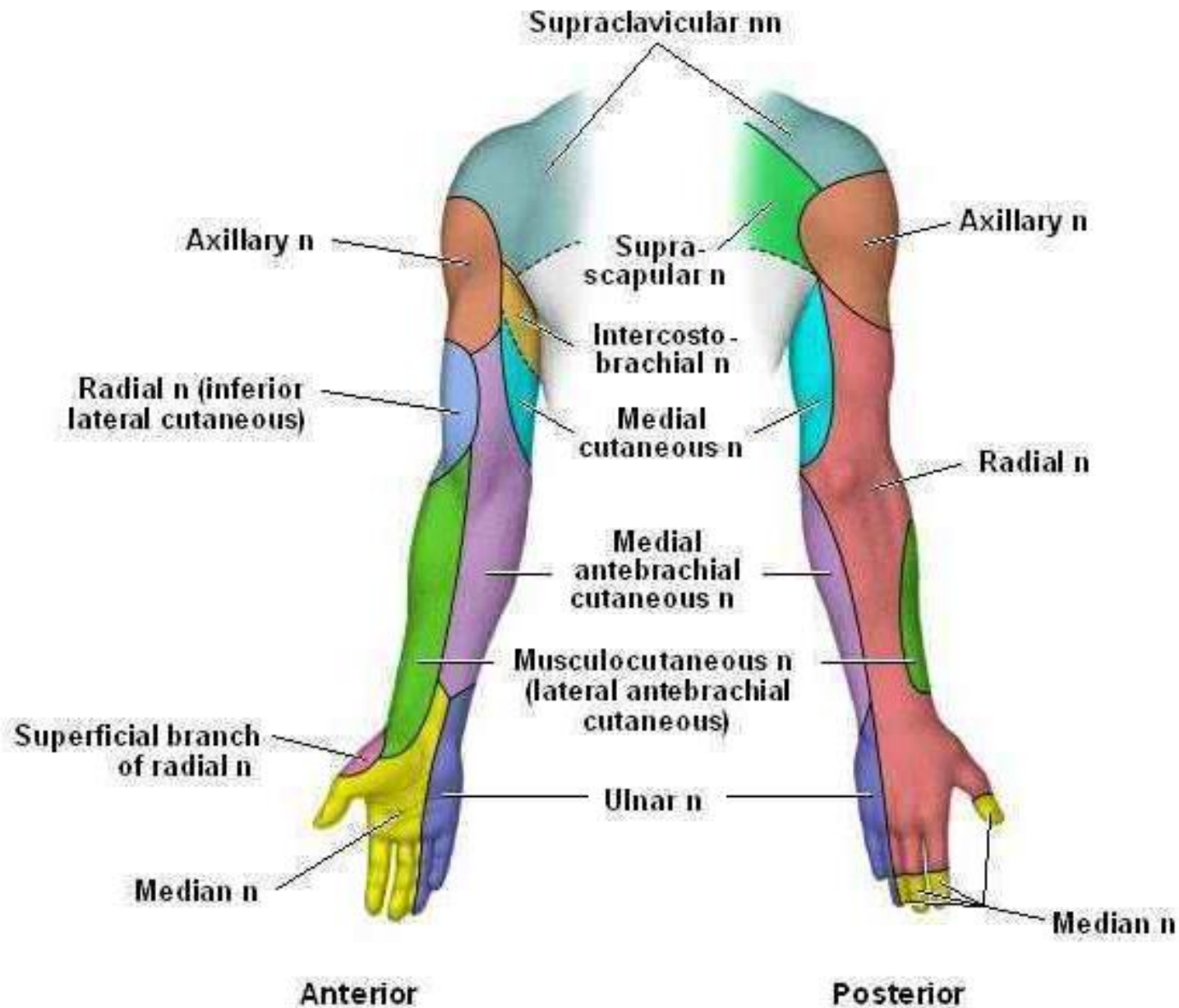
- Trigeminal nerve (most of the anterolateral skin of the face)
- Cervical plexus (skin of the neck and pinna)
- Cervical spinal nerve – posterior root (skin posterior of the scalp and neck)



Dermatomes

- Area of the skin that supplied by single spinal nerve.
- the area of the skin that provides sensory input to the dorsal roots of a pair of spinal nerves
- There are 8 cervical, 12 thoracic, 5 lumbar and 5 sacral spinal nerves that relays cutaneous sensation (pain, thermal, itch, touch etc) from particular region of the body to the brain
- Dermatomes are useful in neurology for finding the site of damage to the spine





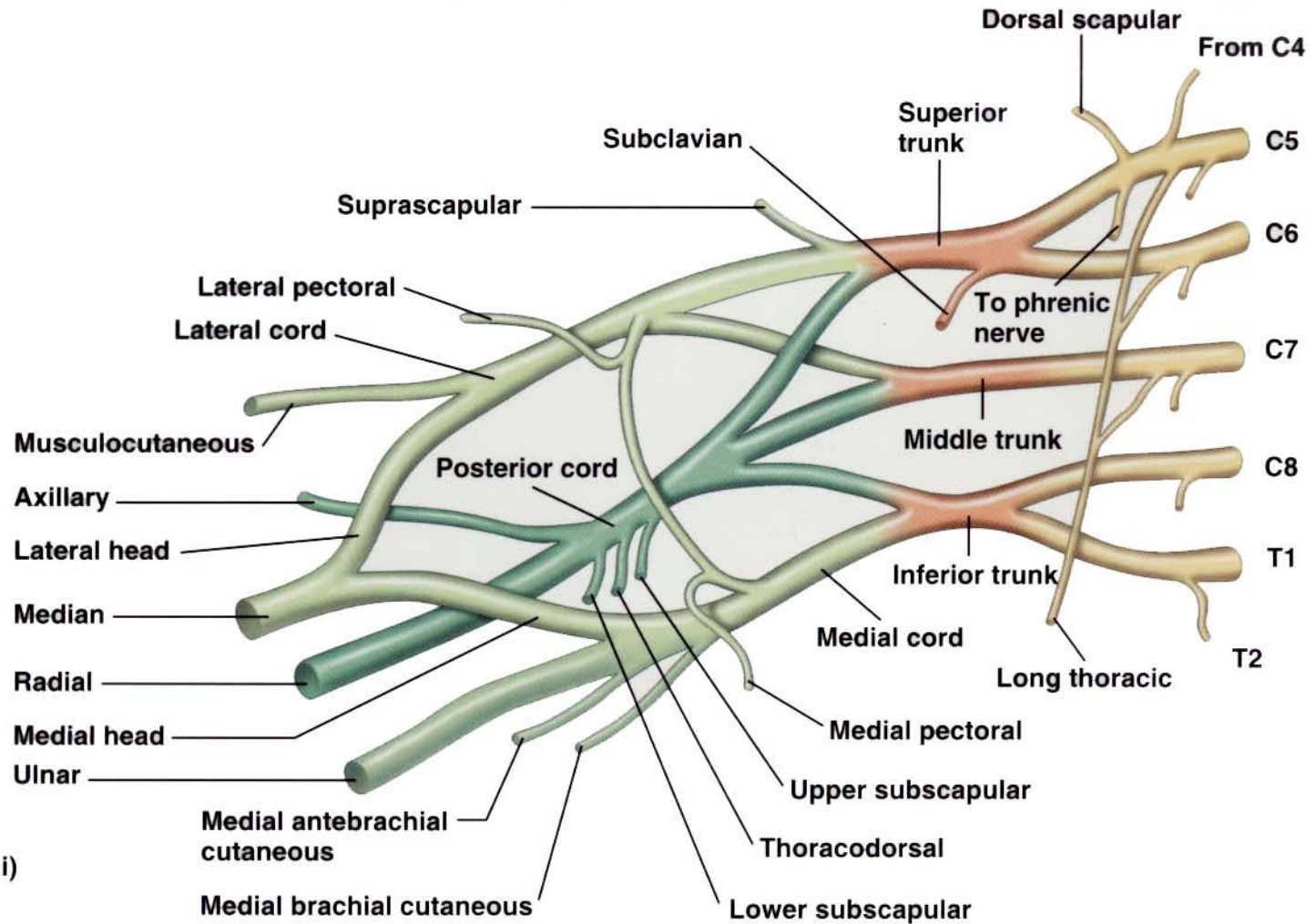
Brachial Plexus

- 5 main nerves arise from brachial plexus:
 1. Axillary nerve
 2. Musculocutaneous nerve
 3. Radial nerve
 4. Median nerve
 5. Ulnar nerve

Brachial Plexus

- Networking of spinal nerves, formed by ventral (anterior rami) of cervical spinal nerves C5-C8 and thoracic spinal nerves T1.
- Brachial plexus is responsible for cutaneous (sensory) and muscular (motor) innervation of the entire upper limb.

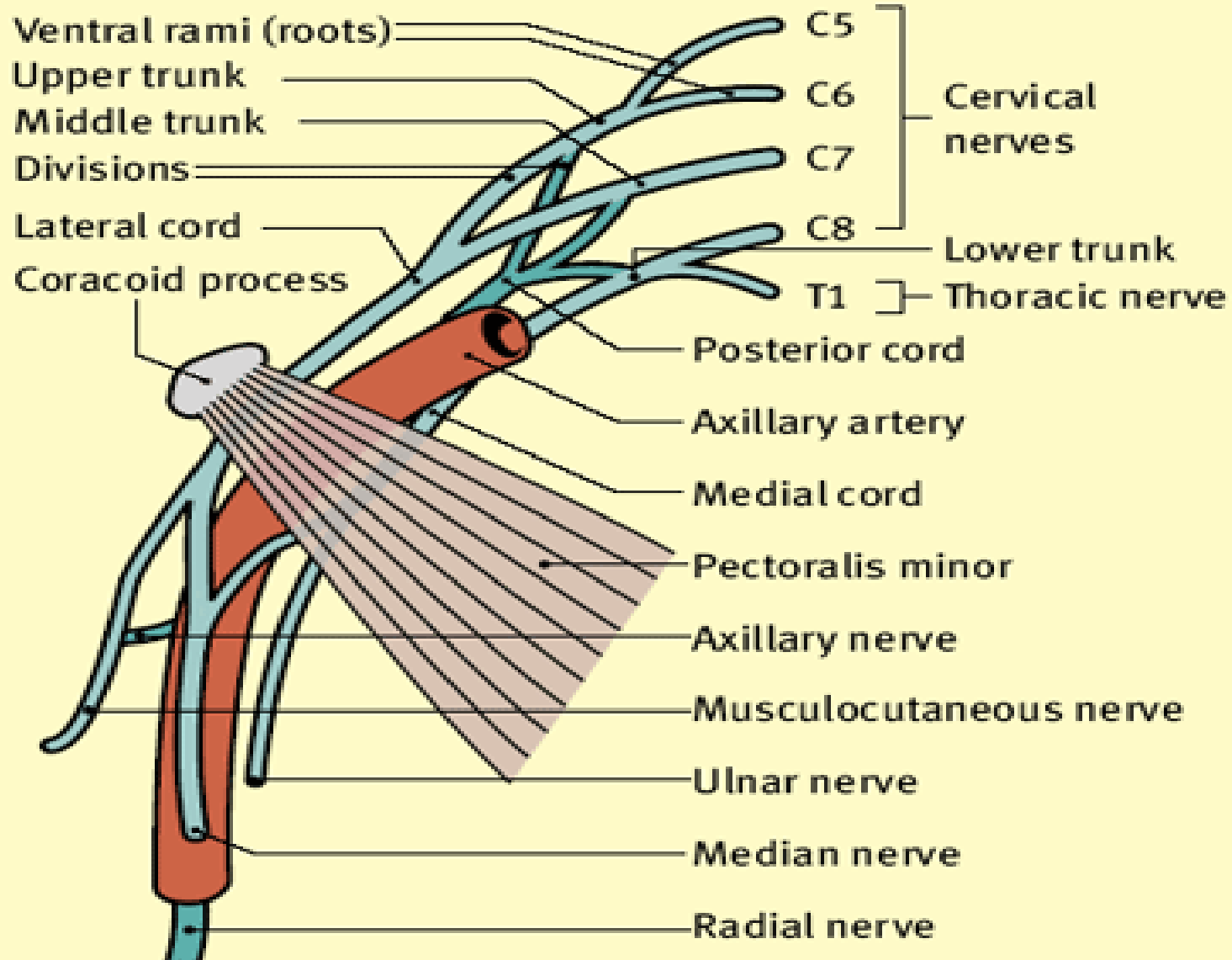
Brachial Plexus



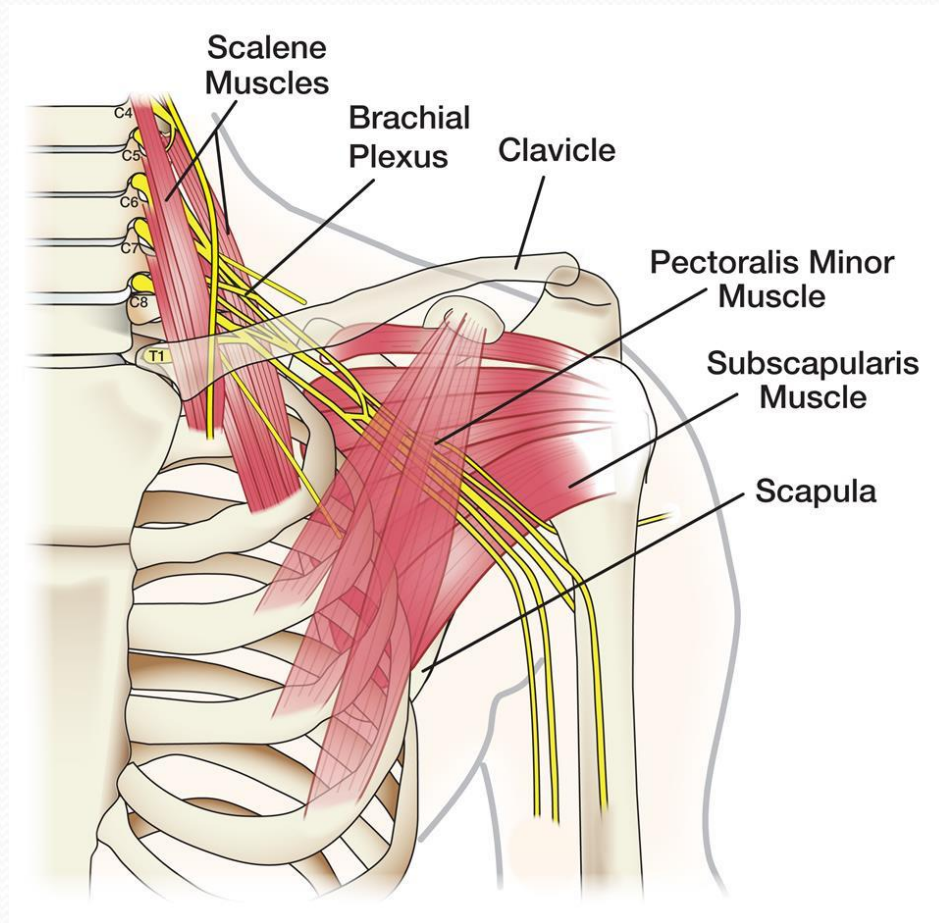
(a) Origin of brachial plexus

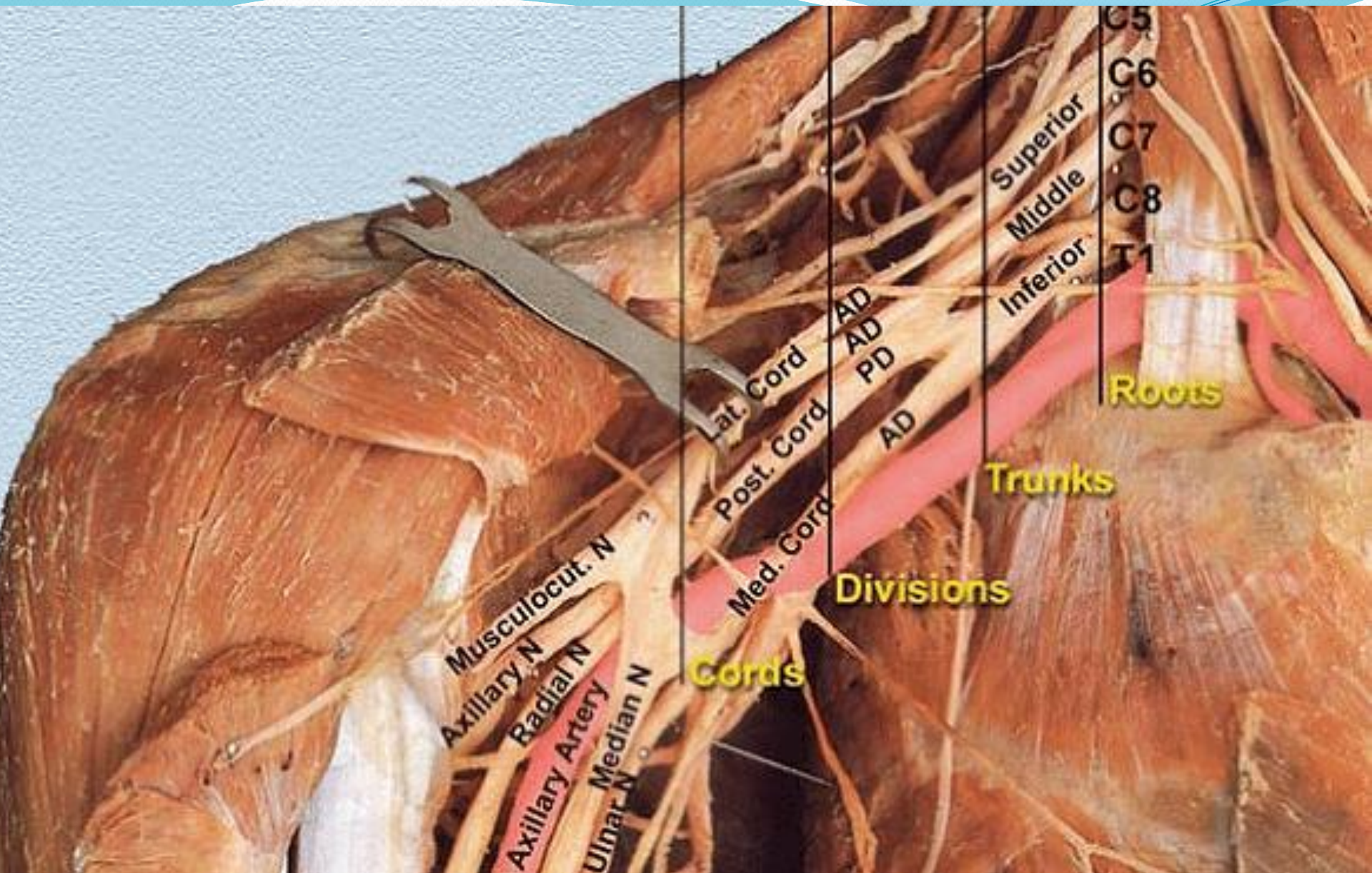
- Roots (anterior rami)
- Trunks
- Anterior divisions
- Posterior divisions

Relationship of the brachial plexus to the axillary artery



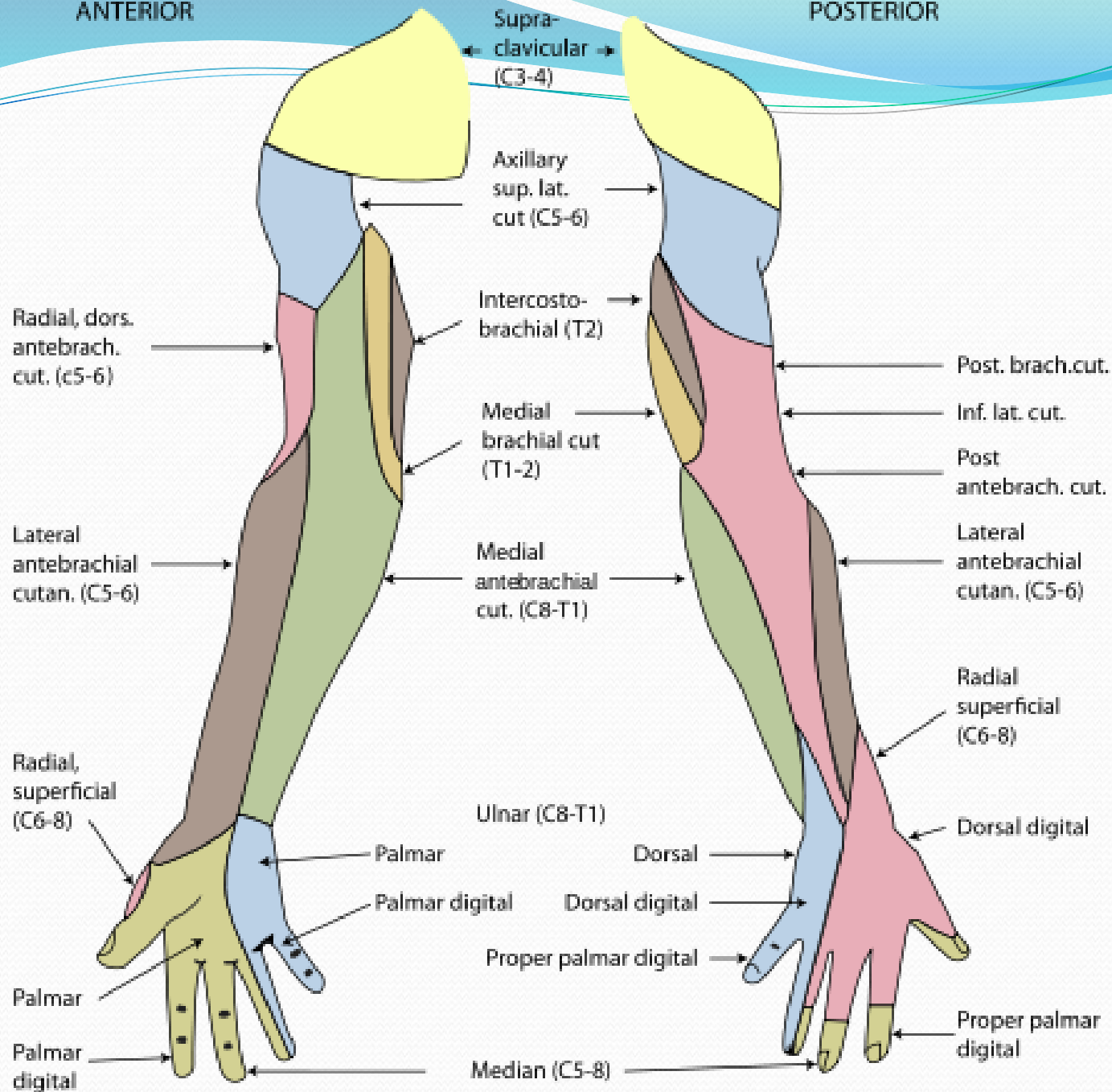
Posterior divisions and their branches dark green

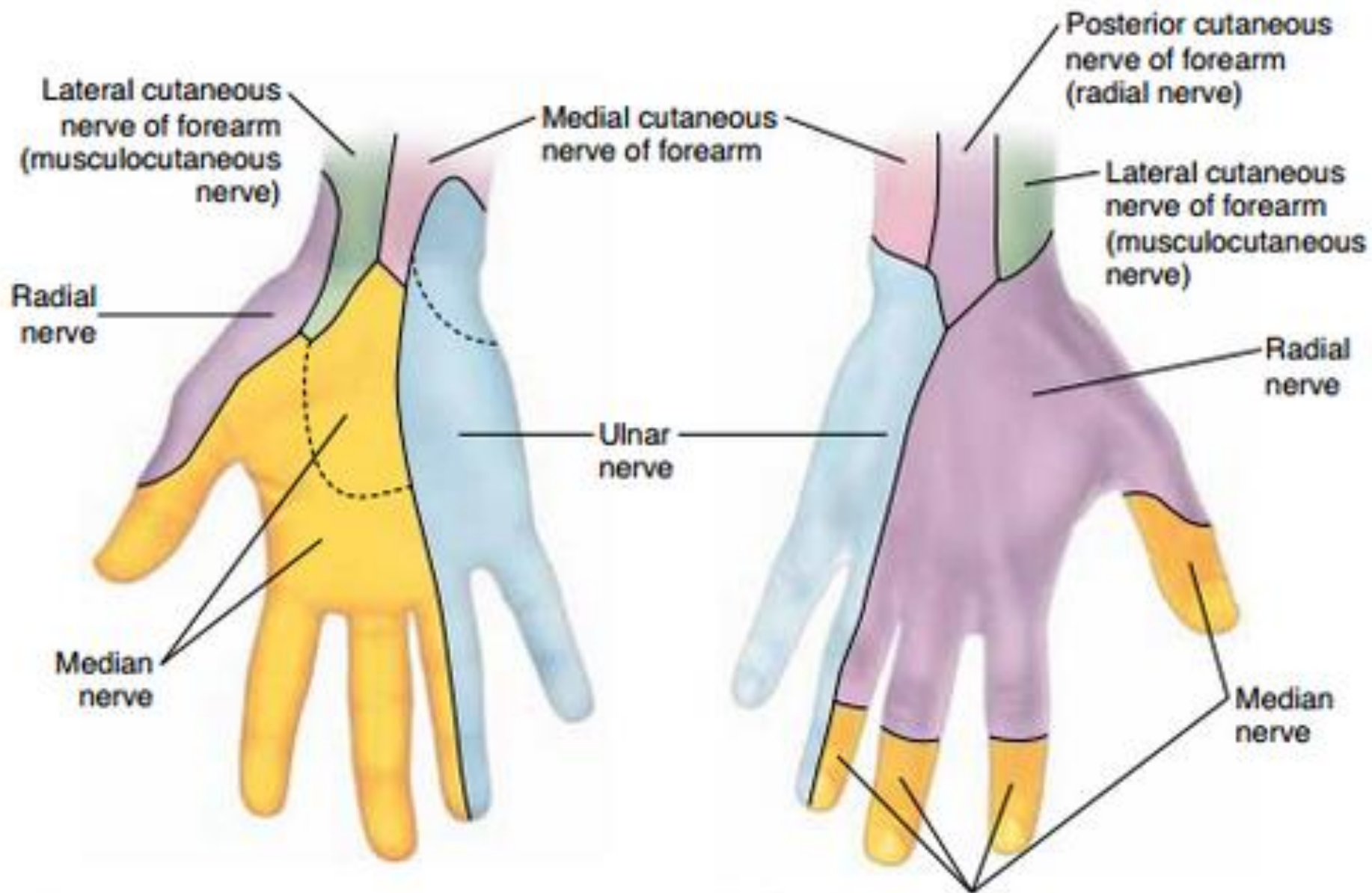




ANTERIOR

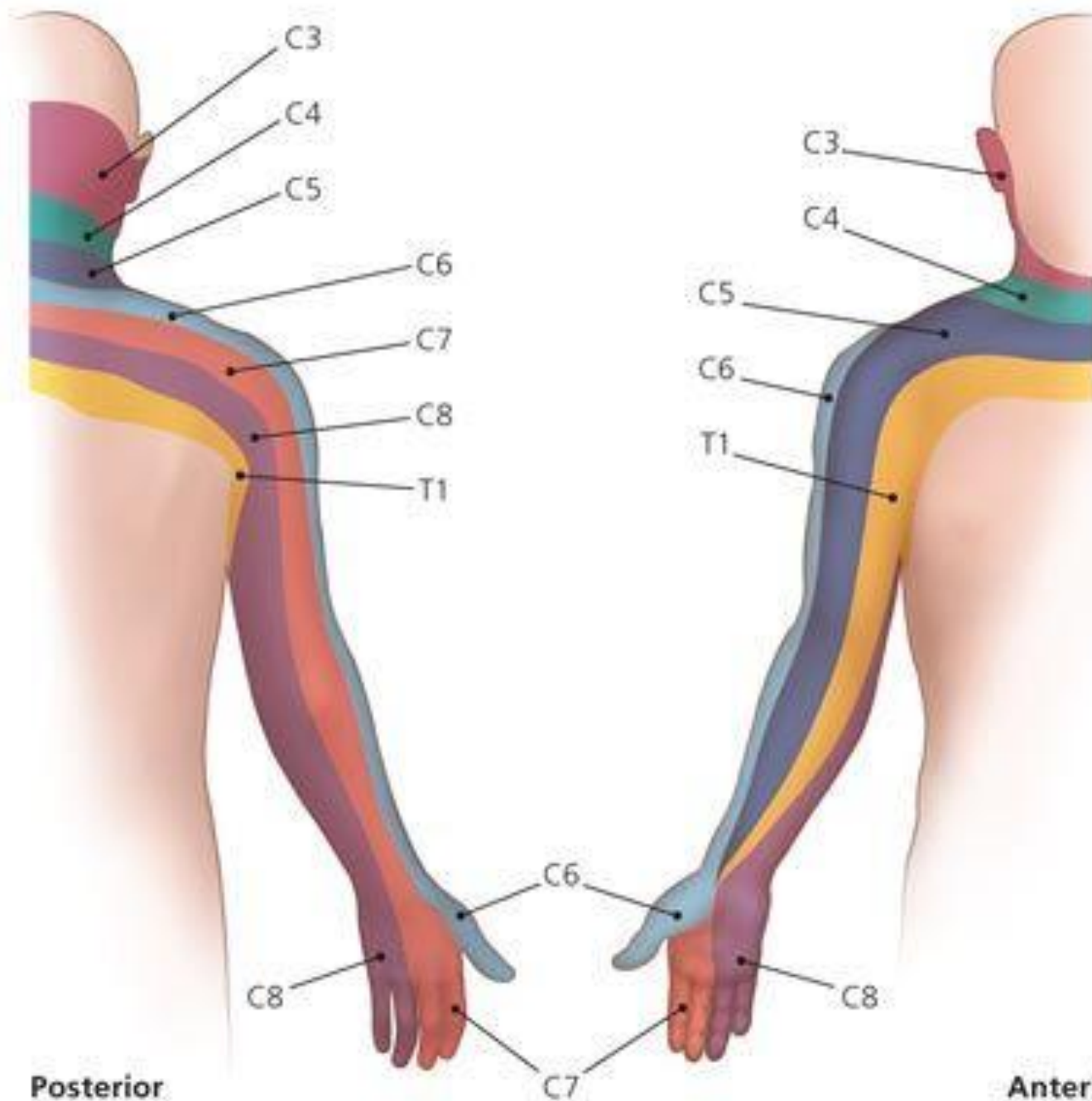
POSTERIOR

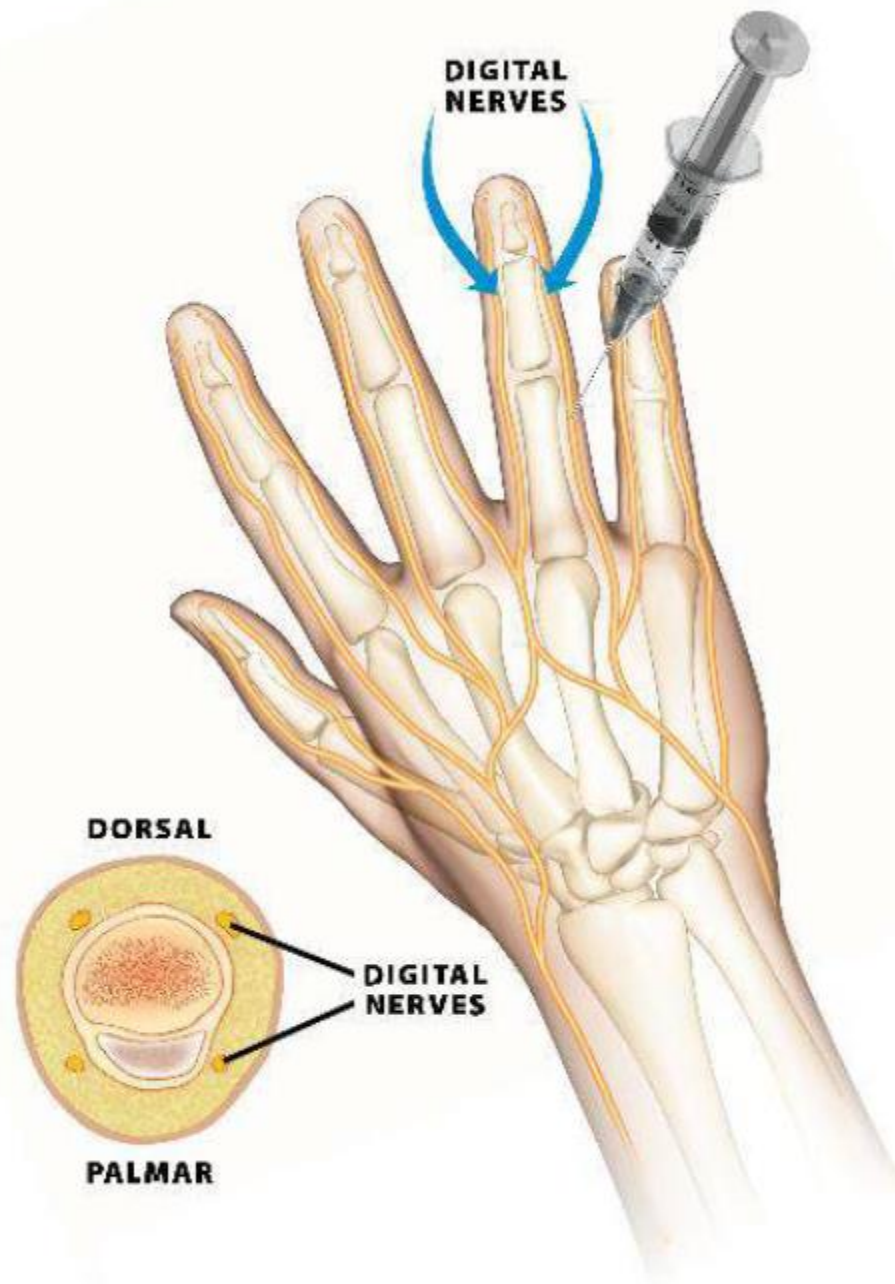




(a) Palmar view

(b) Dorsal view





Axillary nerve

Axillary Nerve

- From root C₅-C₆
- Arise from posterior cord of brachial plexus at the level of axilla.

Branches of Axillary Nerves

- Lies posterior to the axillary artery and anterior to the subscapularis muscles.
- Then axillary nerves will divide into anterior branch (upper branch) and posterior branch (lower branch).
- Anterior branch innervate anterior border of deltoid muscles (anterior and lateral fiber)
- Posterior border supply teres minor and posterior part of the deltoid (posterior fiber). Then it will branch of to formed superior lateral cutaneous nerve of arm (superior lateral brachial cutaneous).

Innervations of Axillary Nerve

- **Muscular innervations**

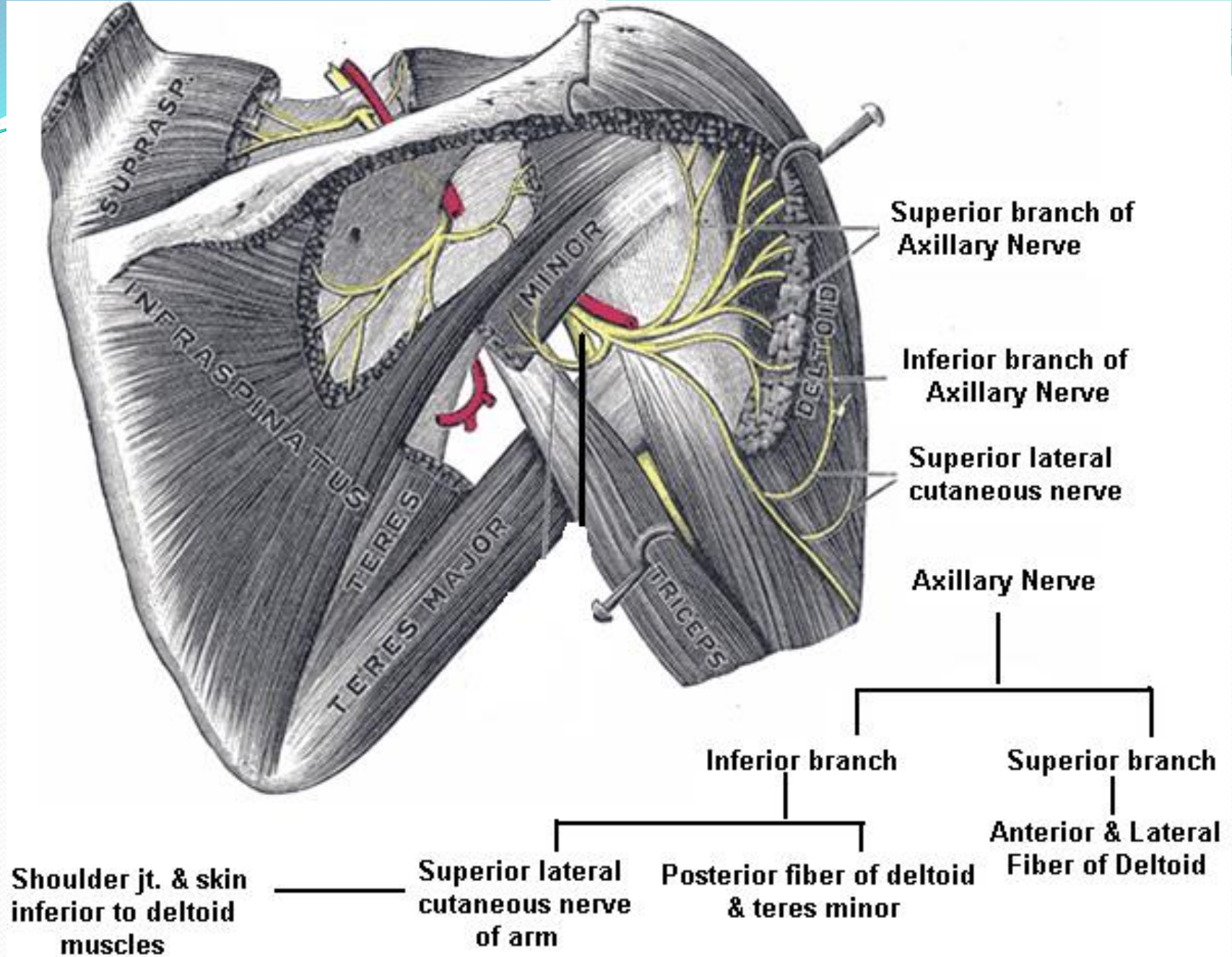
- anterior branch – anterior and lateral fiber of deltoid muscles
- posterior branch – teres minor and posterior fiber of deltoid

- **Cutaneous innervation**

- superior lateral brachial cutaneous nerve
 - carry information from the shoulder joint
 - skin covering inferior region of deltoid muscles.

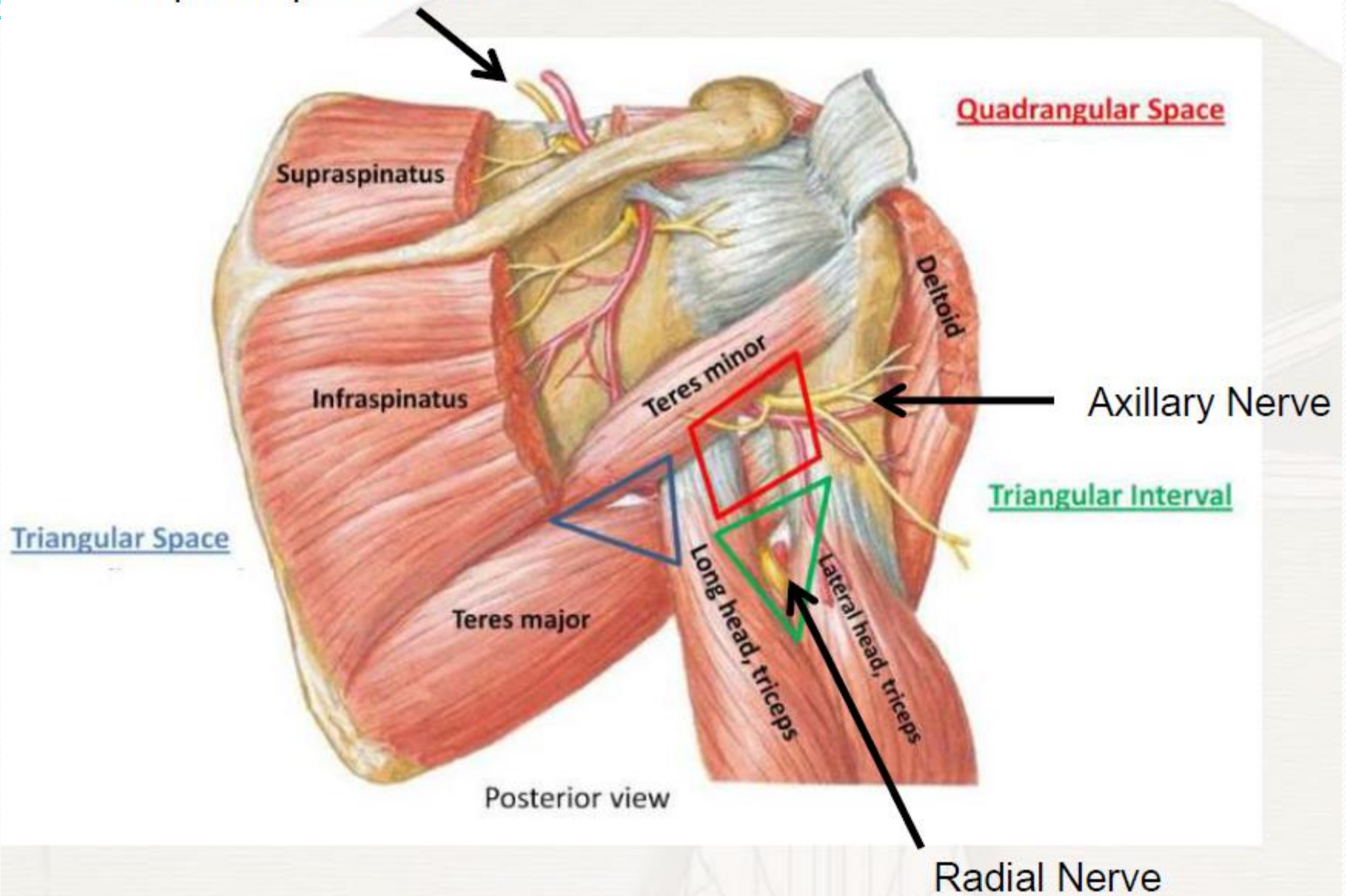
Cont..

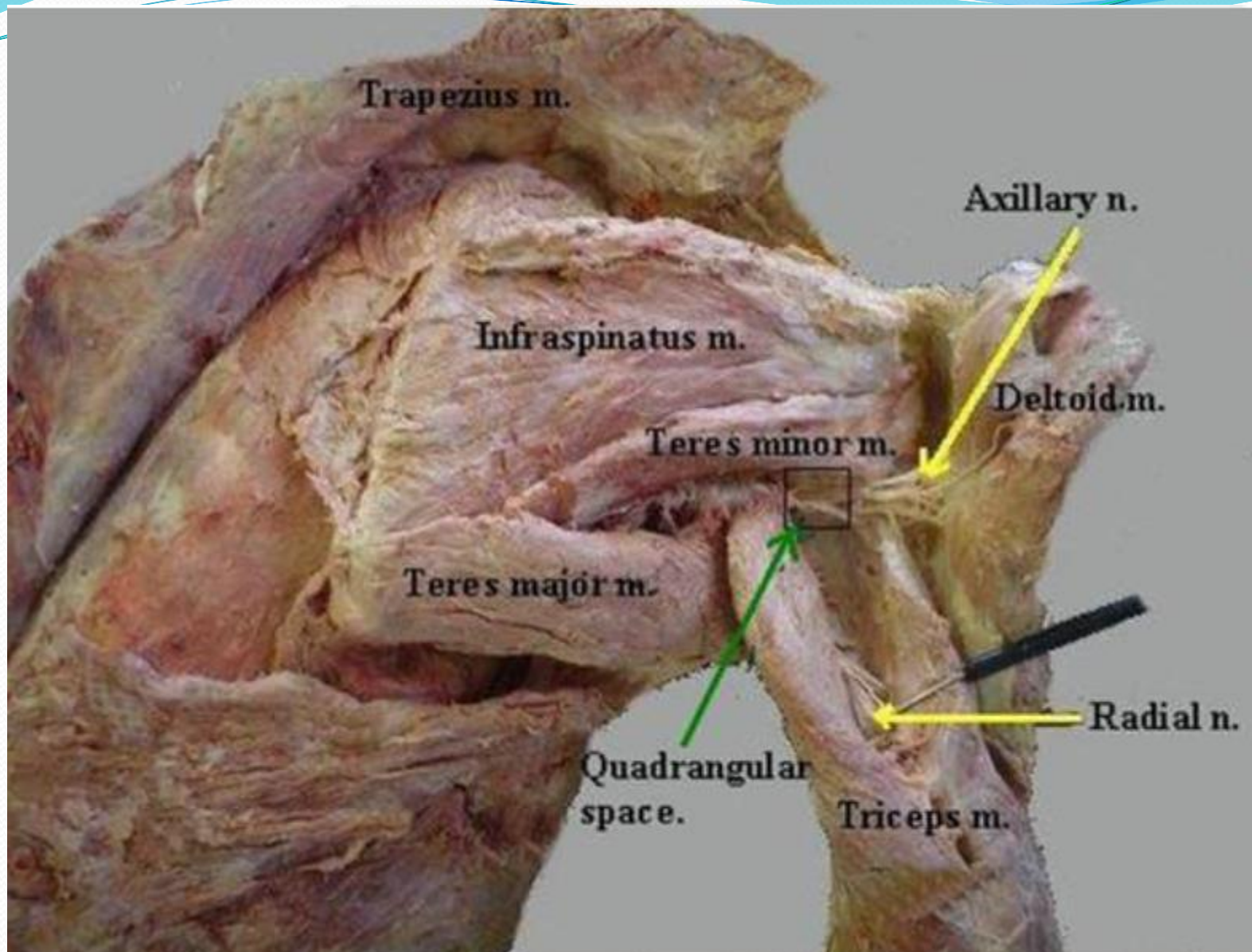
- Frequently injured due to shoulder dislocation because of the close to the proximity of this joint
- Paralysis of the deltoid and teres minor results
- Inability to abduct the arm beyond that possible by the action of the supraspinatus.

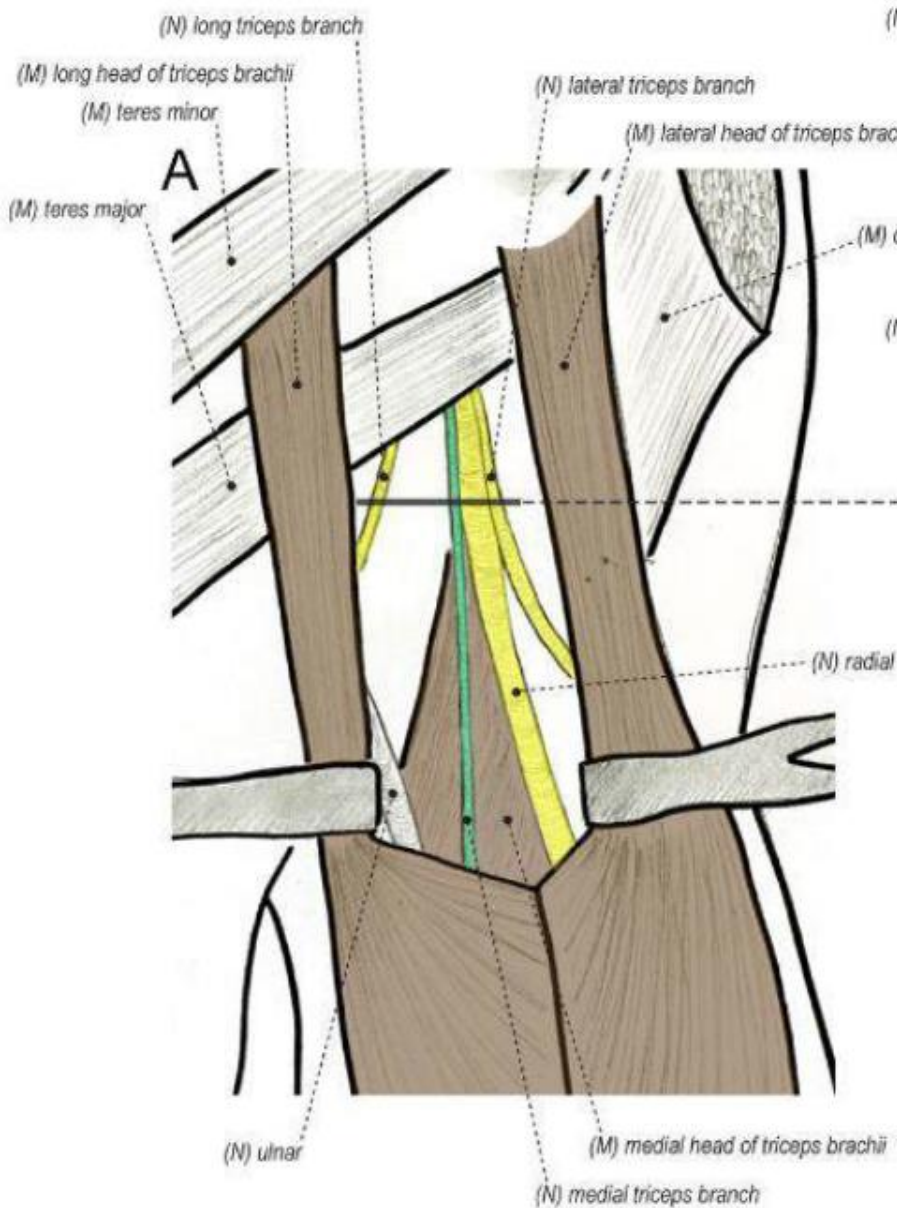


Posterior View of the Shoulder

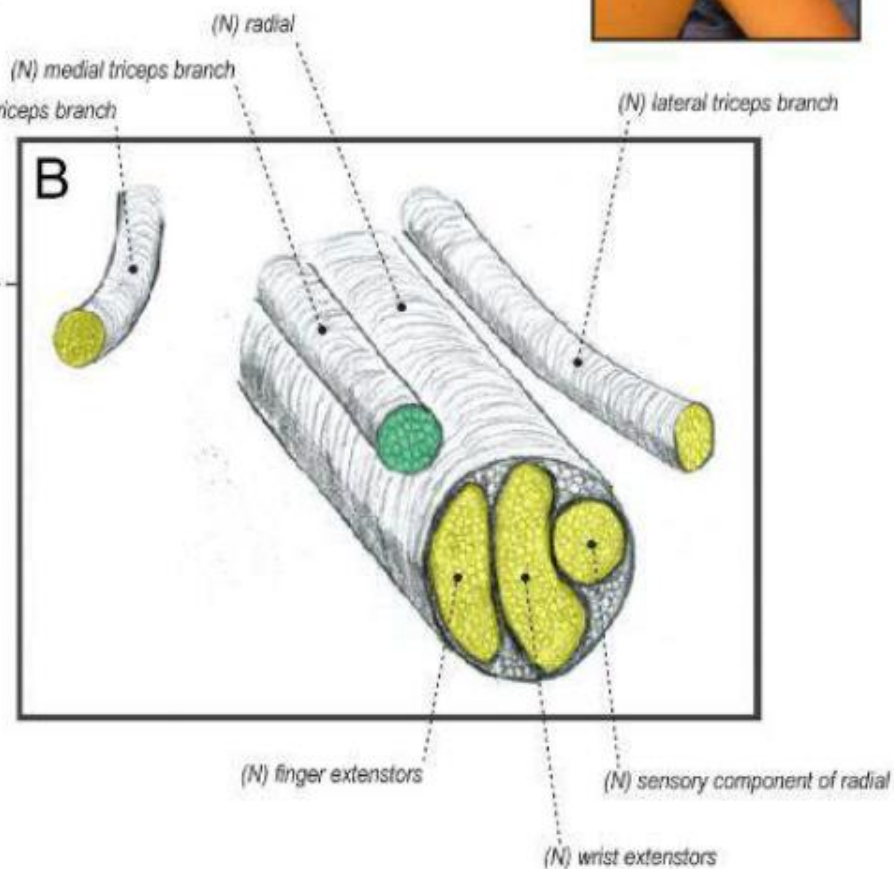
Suprascapular Nerve



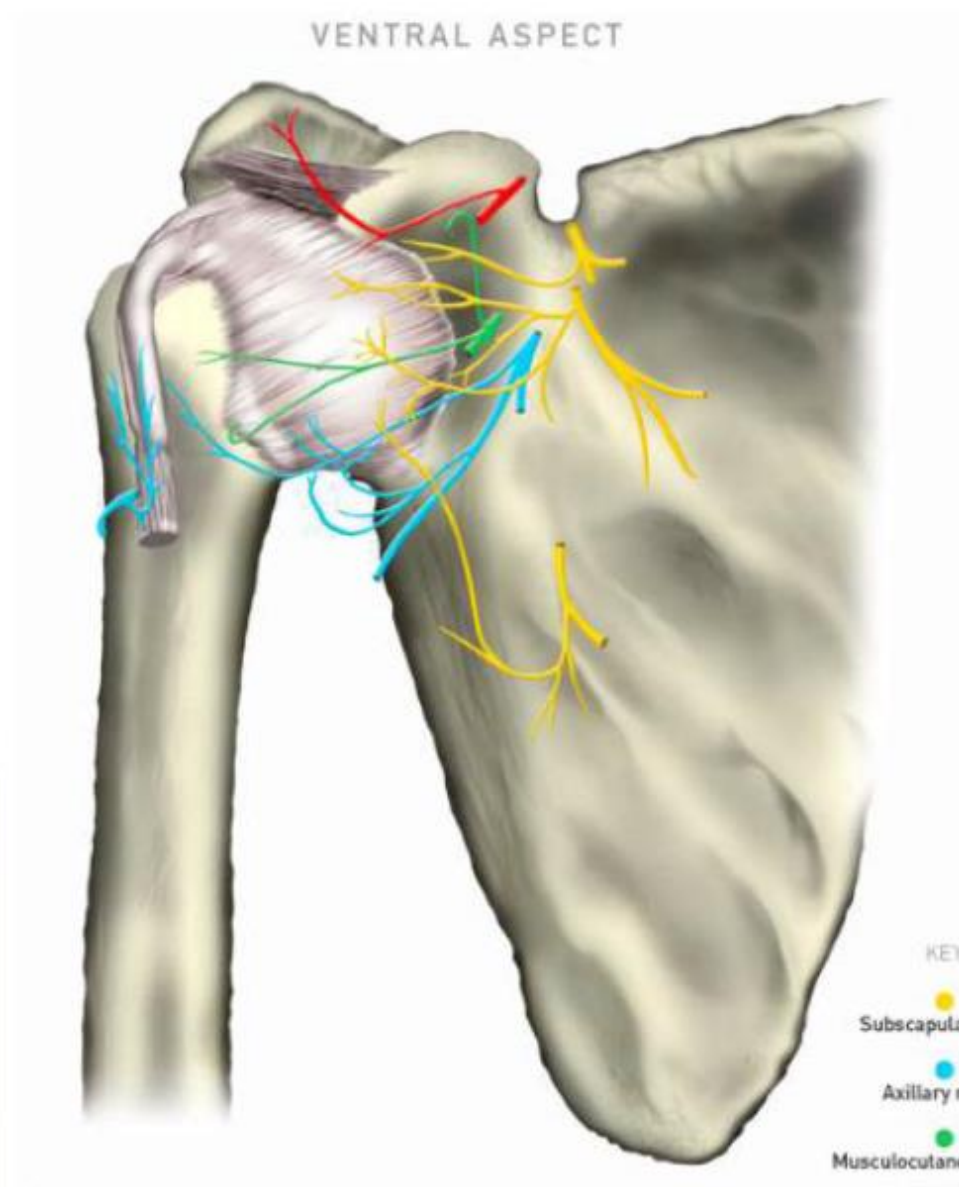
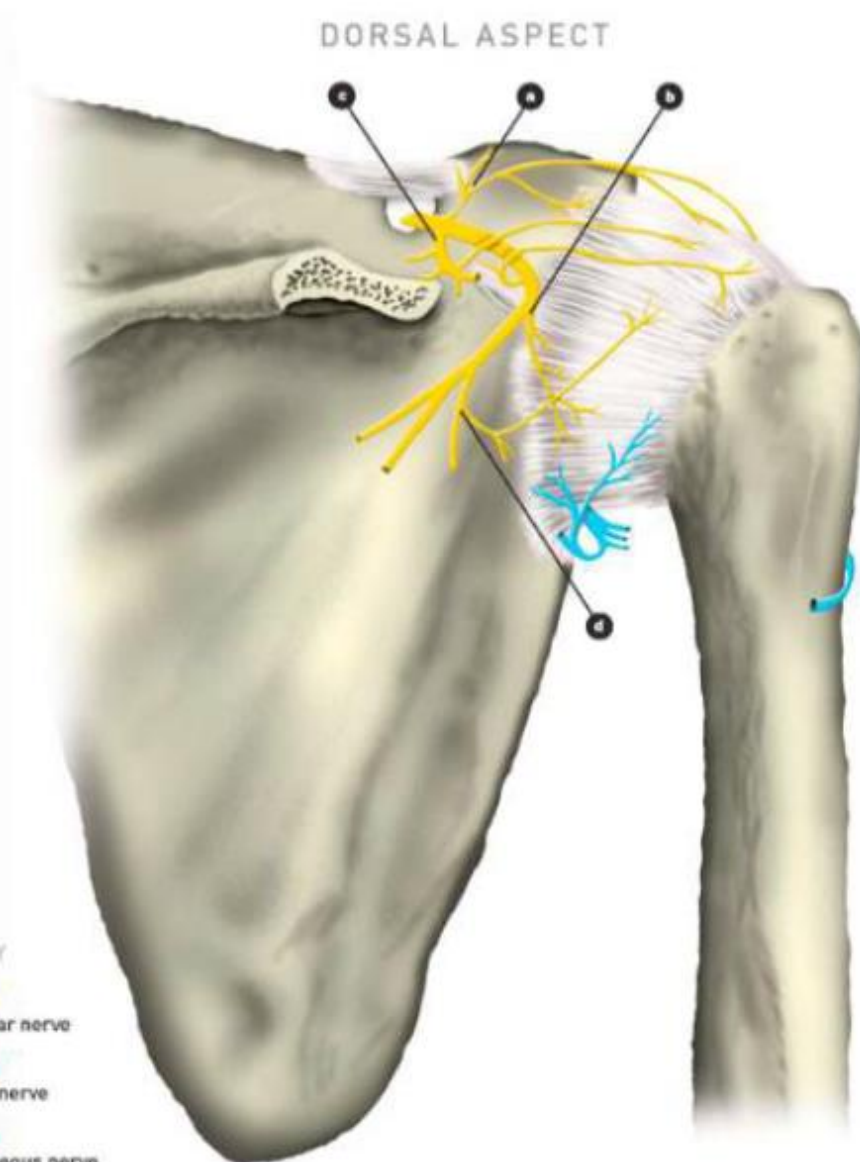




(N) lateral triceps branch



Articular Innervation of the Shoulder Joint



- KEY
- Subscapular nerve
 - Axillary nerve
 - Musculocutaneous nerve
 - Lateral pectoral nerves

- cranial and ● caudal articular branch & muscular branches for ● supraspinatus muscle and ● infraspinatus muscle

LI-16 JuGu

Great Bone

- Superior Articular Branch of Suprascapular Nerve; Supraspinatus Tendon & TP
- 巨骨在肩端上行兩叉骨間陷者中，手陽明、蹻脈之會、刺入一寸五分、灸五壯。
- Systematic Classic: LI-16, in the depression between two crossing bone at the top of the shoulder, meeting of Hand YangMing and Qiao Vessel, puncture 1.5 cun, moxa 5 cones.
- **Comment:** The Great Bone which is the Chinese name for LI-16 is likely the name traditionally used to refer to the clavicle. This is supported by the fact that the Great Bone is used to locate LU-2 in the Systematic Classic.

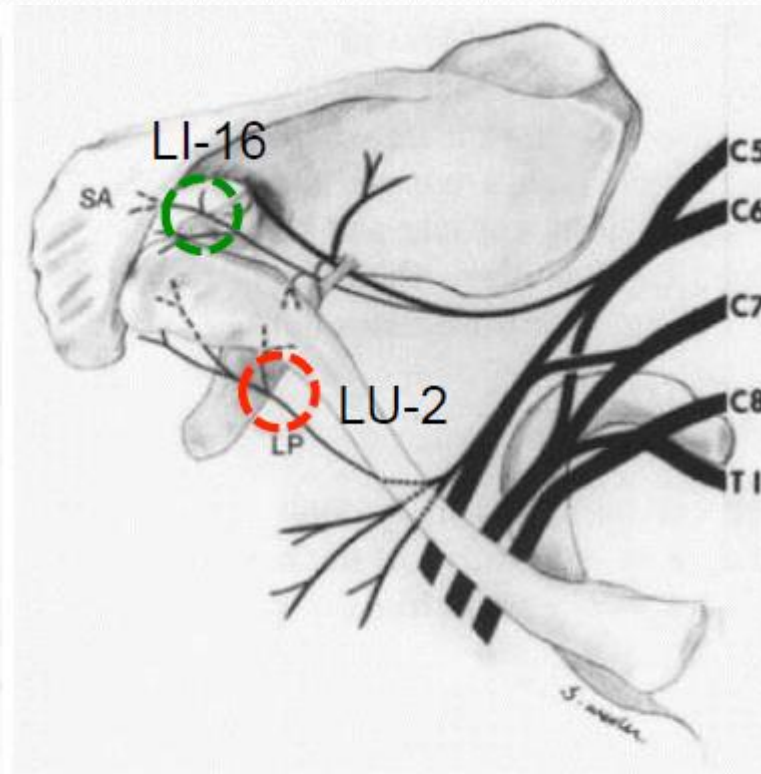


Fig 4. Superior view of the shoulder joint; the coracoclavicular ligaments, the acromioclavicular joint, the subacromial bursa, and the superior shoulder joint capsule receive contributions from the articular branch of the LP nerve and the SA branch of the suprascapular nerve.

SI-10 NaoShu

Upper Arm Shu

- Inferior Articular Branch of Suprascapular Nerve
Posterior Deltoid; Capsule of GH Joint;
- 臑腧在肩後大骨下胛上廉陷者中，手太陽、陽維、蹻脈之會，舉臂取之，刺入八分，灸三壯。
- Systematic Classic: SI-10, behind the shoulder, under the big bone, in the depression on the upper aspect of the shoulder blade, meeting point of Hand TaiYang, YangWei and Motility Vessel, obtained with arm raised, puncture 8 fen, moxa 3 cones.

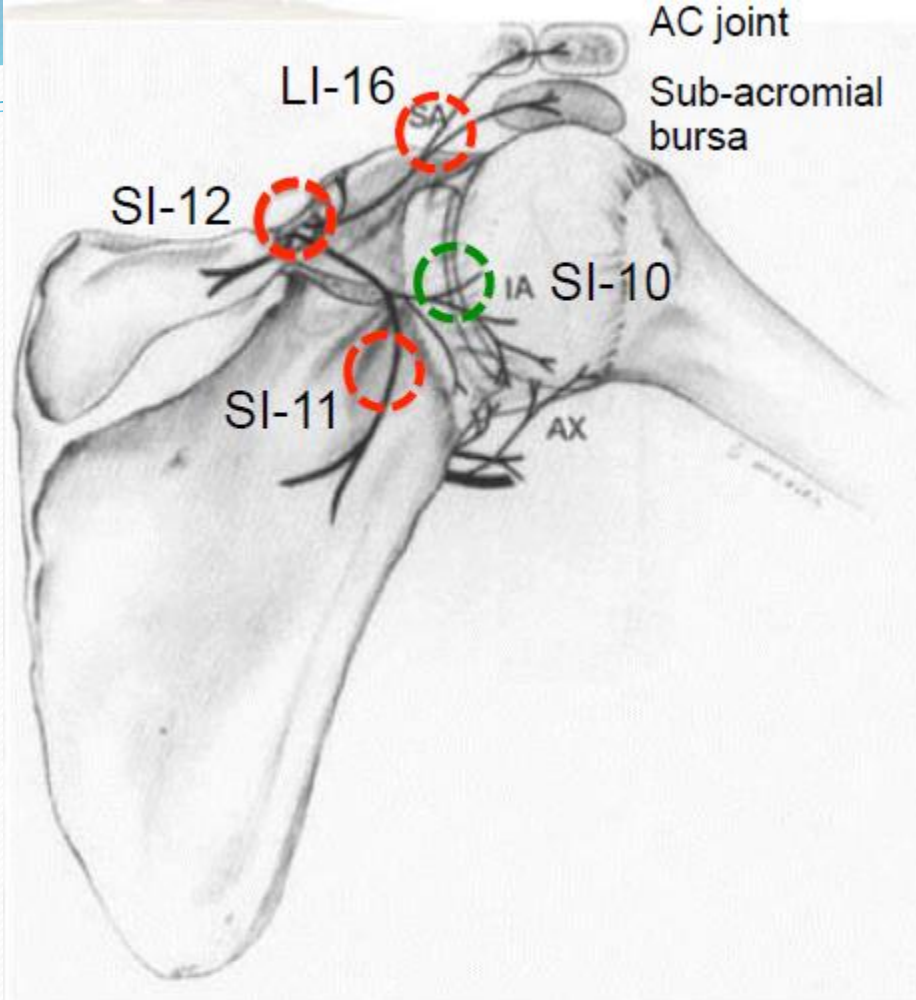


Fig 3. Posterior view of the shoulder joint; SA = the superior articular branch of the suprascapular nerve, which constantly separates from the main nerve approximately 4.5 cm before its passage underneath the transverse scapular ligament; IA = the inferior articular branch of the suprascapular nerve; the axillary joint recess, which receives contributions from the AX.

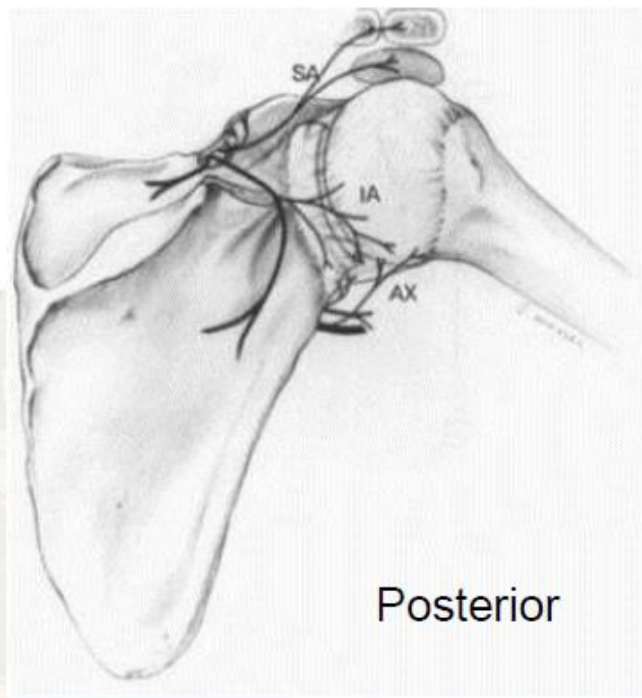
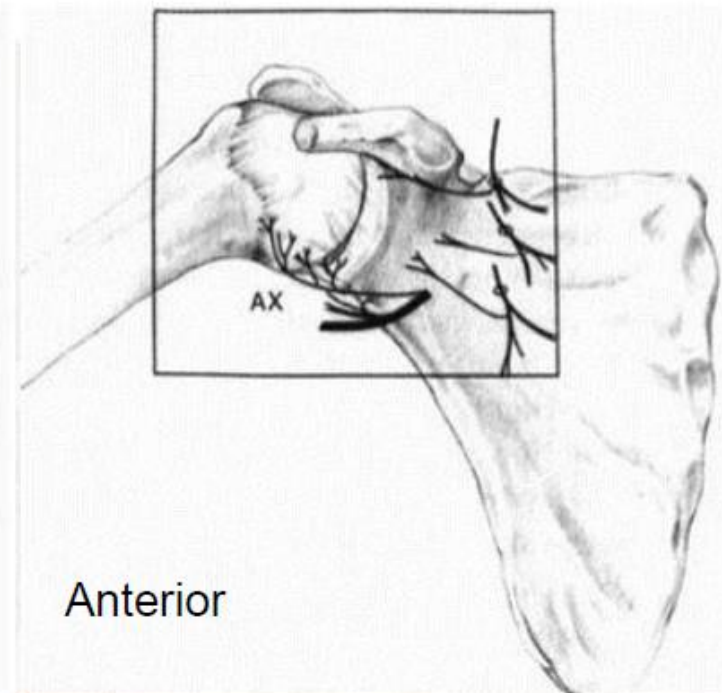
SI-9 JianZhen

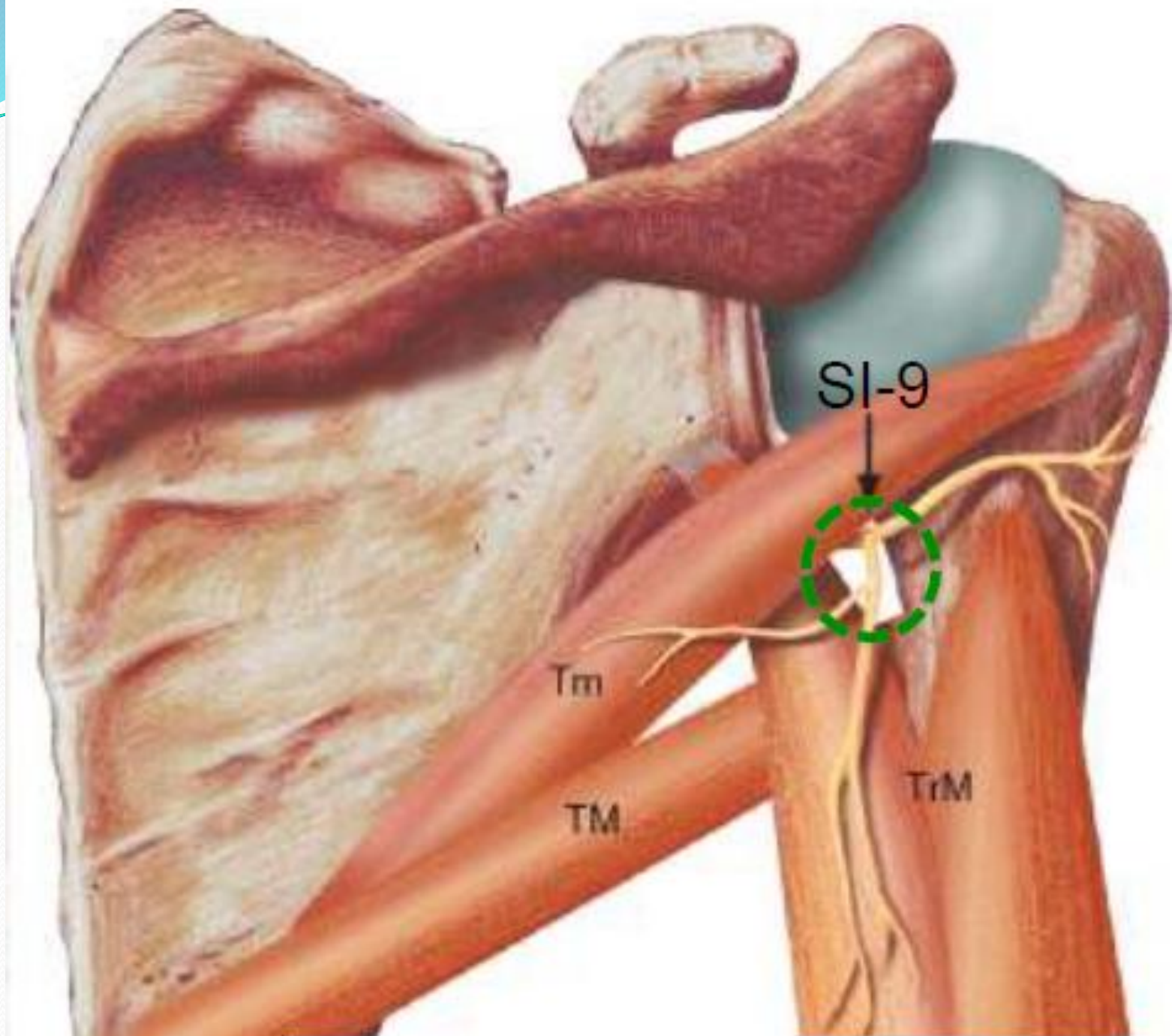
True Shoulder

- Axillary Nerve
- 肩貞在肩曲胛下，兩骨解間，肩後陷者中，手太陽脈氣所發，刺入八分，灸三壯。
- Systematic Classic: SI-9, below the bend of the shoulder blade, between the two bone separation (scapula & humerus), in the depression behind the shoulder, where Hand TaiYang channel Qi issues, puncture 8 fen, moxa 3 cones.

- **Comment:** SI-9 is in our interpretation, located in the quadrangular space (formed by the long heads of the Tricep, Humerus, Teres major & Teres Minor). The Axillary Nerve (innervates Deltoids, Teres Minor, Long head of Tricep, articular branch to anterior-inferior capsule and cutaneous branch called Superior Lateral Cutaneous Nerve of Arm). According to D. Price (2006), the needle needs to touch down on the Humerus, then track the needle up or down along the length of the Humerus to obtain the Axillary Nerve (Combined Suprascapular and Axillary (Circumflex) Nerve Block. Journal of New York School of Anesthesia, Vol. 15:1-9)

Oskar C Aszmann et al 1996.
Innervation of the Human
Shoulder Joint and its
Implications for Surgery.
Clinical Orthopedics and
Related Research, 330
p202-207



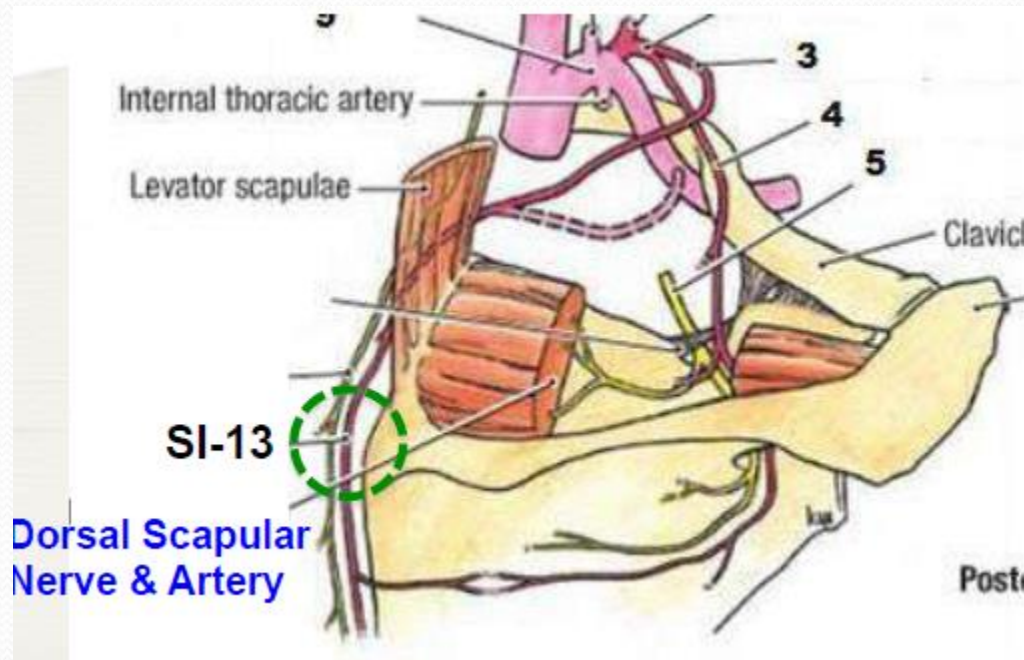


SI-13 QuYuan

Crooked Wall

- Dorsal Scapular Nerve
- 曲垣在肩中央曲甲陷者中，按之動脈應手，刺入八九分，灸十壯。
- Systematic Classic: In the depression at the center of the bend of the shoulder blade, where a pulsating vessel is felt by pressing, puncture 8 or 9 fen, moxa 10 cones.

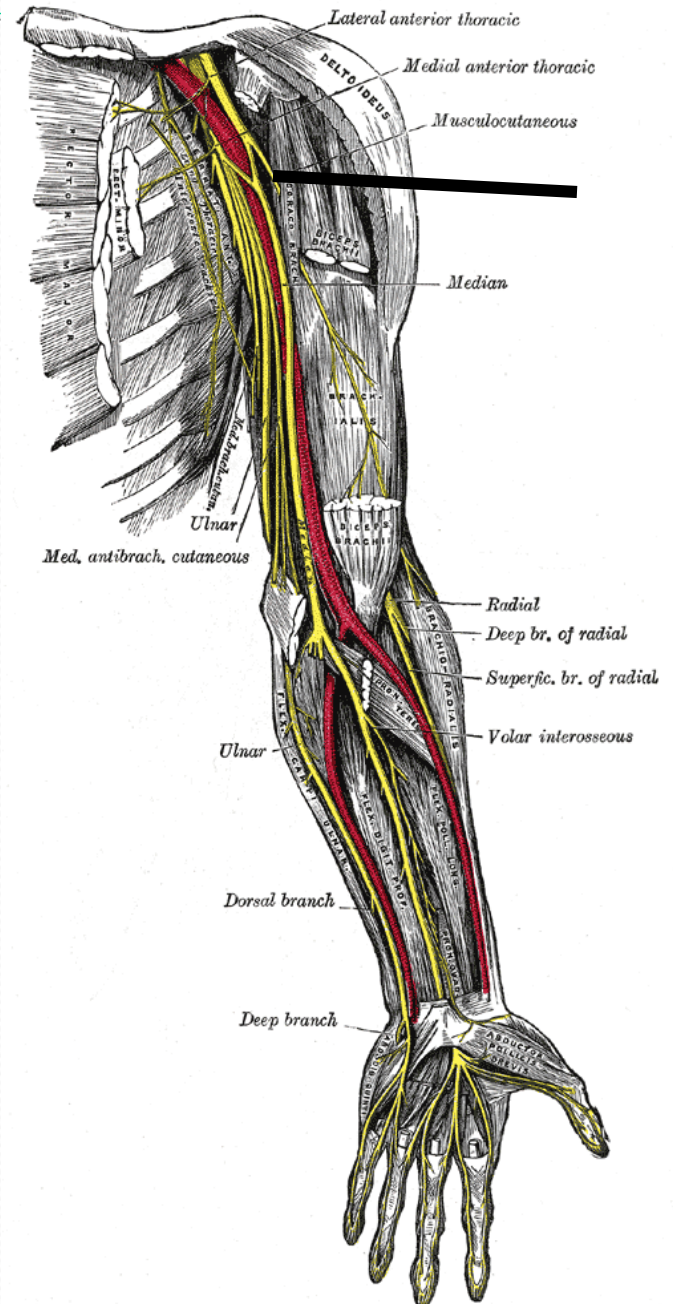
- **Comment:** In the modern TCM location, SI-13 is placed at the origin of the supraspinatus muscle on the medial end of the supraspinatus fossa. The problem with this location is that there are no prominent arteries in this area of the scapula. The nearest artery would be the Dorsal Scapular Artery, which is medial to the medial border of the scapula. The Dorsal Scapular Nerve travelling as a bundle with the Dorsal Scapular Artery (the nerve is medial to the artery, is the most logical target for SI-13. The Dorsal Scapular Nerve innervates the Rhomboid minor and major muscles, involved in retraction of the scapula.



Musculocutaneous nerve

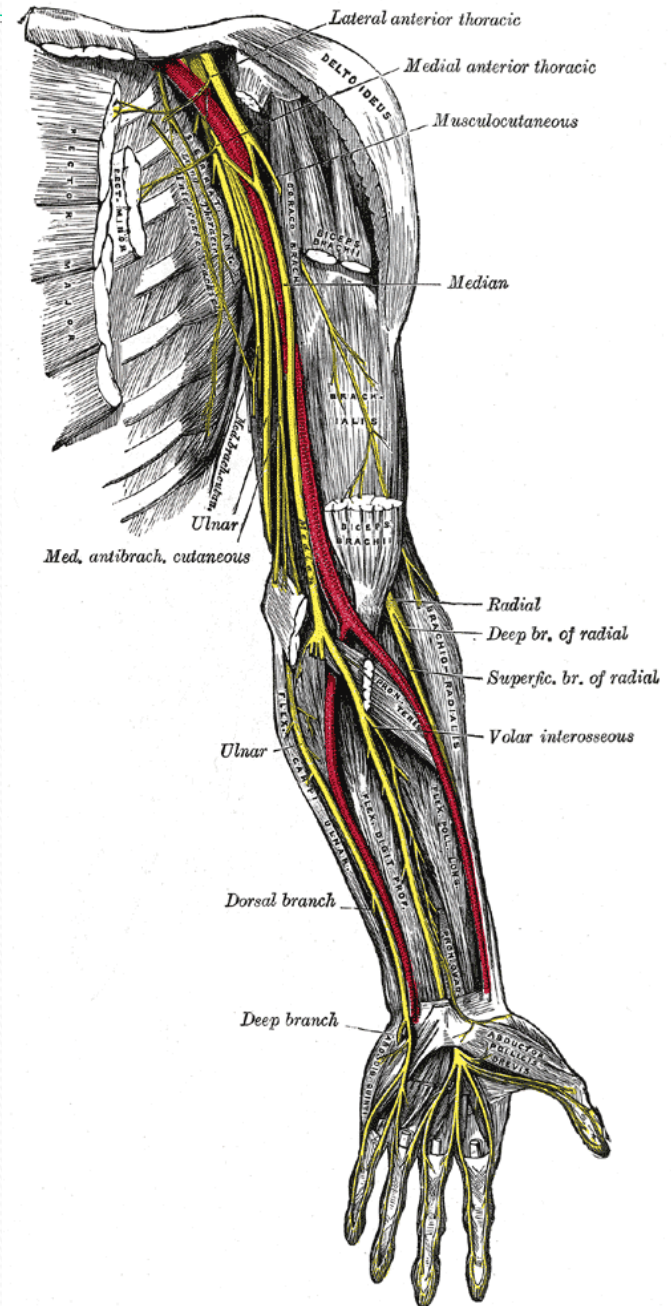
Musculocutaneous Nerve

- Arise from lateral cord of brachial plexus
- Opposite to the lower border of pectoralis minor
- Arise from root C5, C6 and C7.



Musculocutaneous Nerve

- Penetrate coracobrachialis and pass obliquely between biceps brachii and the brachialis to the lateral side of the arm.
- Then continue in the forearm as the lateral antebrachial cutaneous nerve.



Innervation of Musculocutaneous Nerve

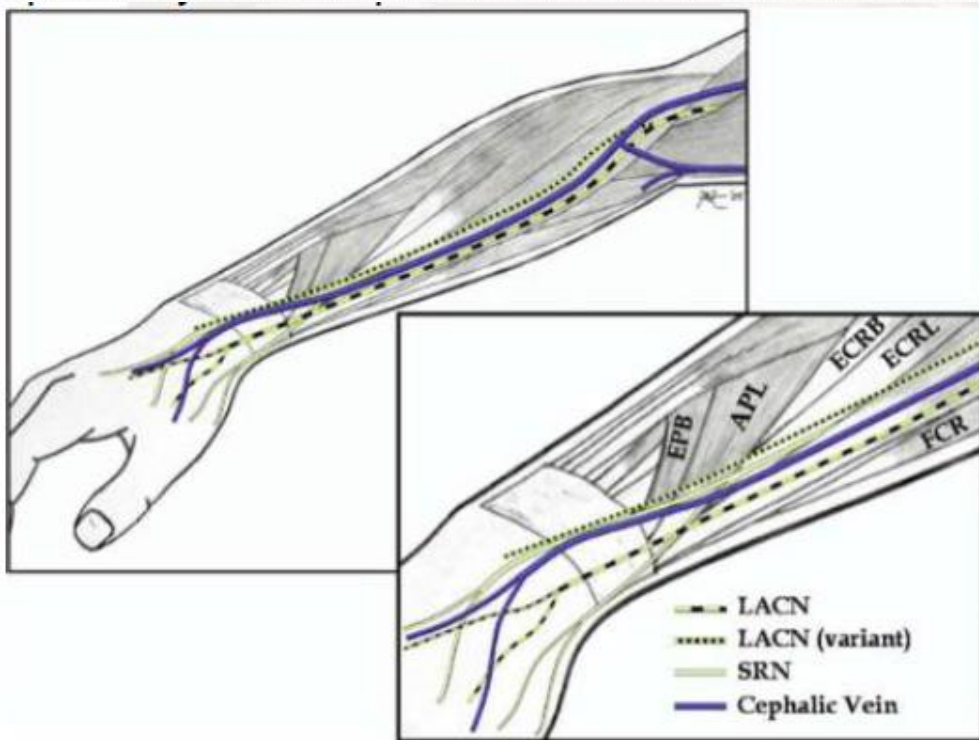
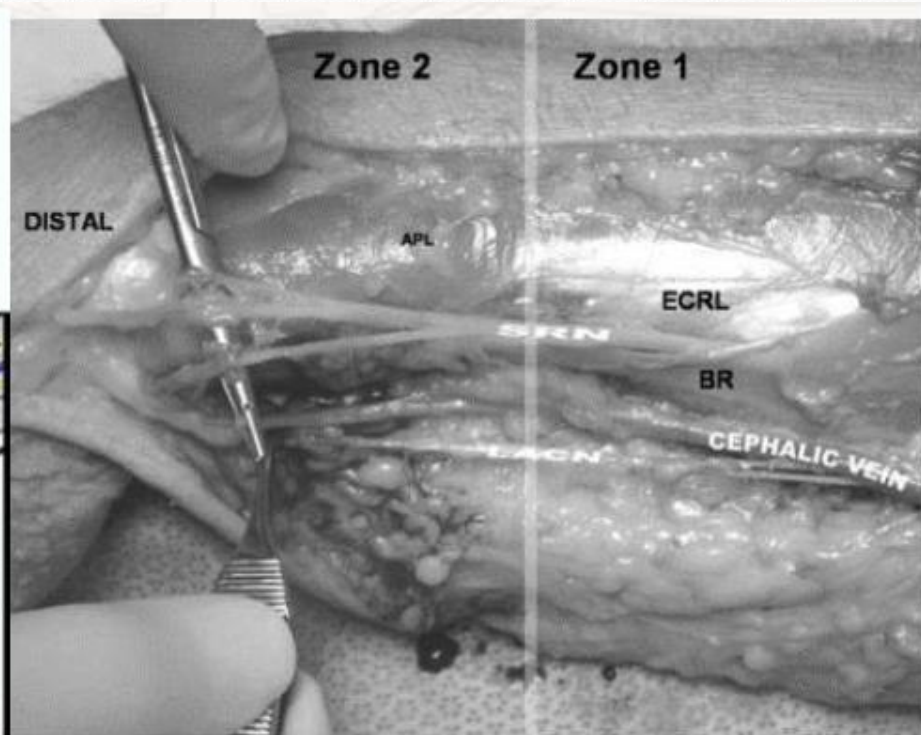
- Muscular innervation
 - Supply coracobrachialis, biceps brachii and brachialis
- Cutaneous innervation.
 - **Lateral antebrachial cutaneous** nerve divide into anterior and posterior branch.
 - Anterior branch – skin of anterolateral surface of forearm as far as ball of the thumb
 - Posterior branch – skin of posterolateral surface of forearm.

LI-6 PianLi 偏歷

Veering Passage

- Lateral Antebrachial Cutaneous Nerve (LACN)
(Musculocutaneous)
- 偏歷，手陽明絡，在腕後三寸，別走太陰者，刺入三分，留七呼，灸三壯 Systematic Classic: LI-6,
- Hand YangMing Luo, 3 cun behind the wrist, separating to the TaiYin, puncture 3 fen, retain 7 exhalation, moxa 3 cones.

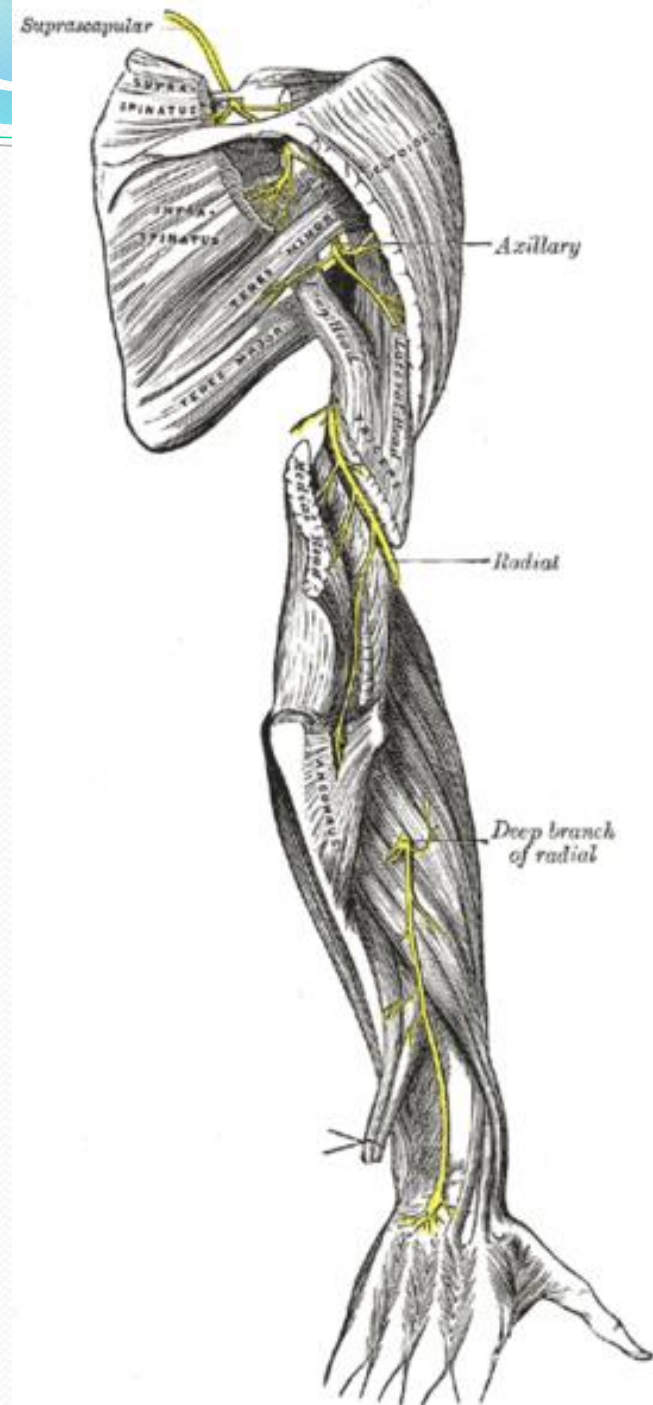
- **Comment:** the LACN is the forearm cutaneous portion of the Musculocutaneous Nerve. In the supinated anatomical position, its distribution covers the anterior lateral as well as the posterior lateral aspect of the forearm. Its terminal branches provide innervation of the dorsal radial side of the hand.
- These cutaneous regions are represented by both LU and LI channel pathways, therefore LI-6 as a Luo point of the LI channel can transmit sensory information from areas attributed to the LU channel. Beldner et al (Beldner et al 2005, Journal of Hand Surgery Vol. 30A No.6 pp1226-30) showed that in 84% of 37 cadaveric forearms, the LACN was in close proximity to the cephalic vein, and travelled volar to the vein.



Radial nerve

Radial Nerve

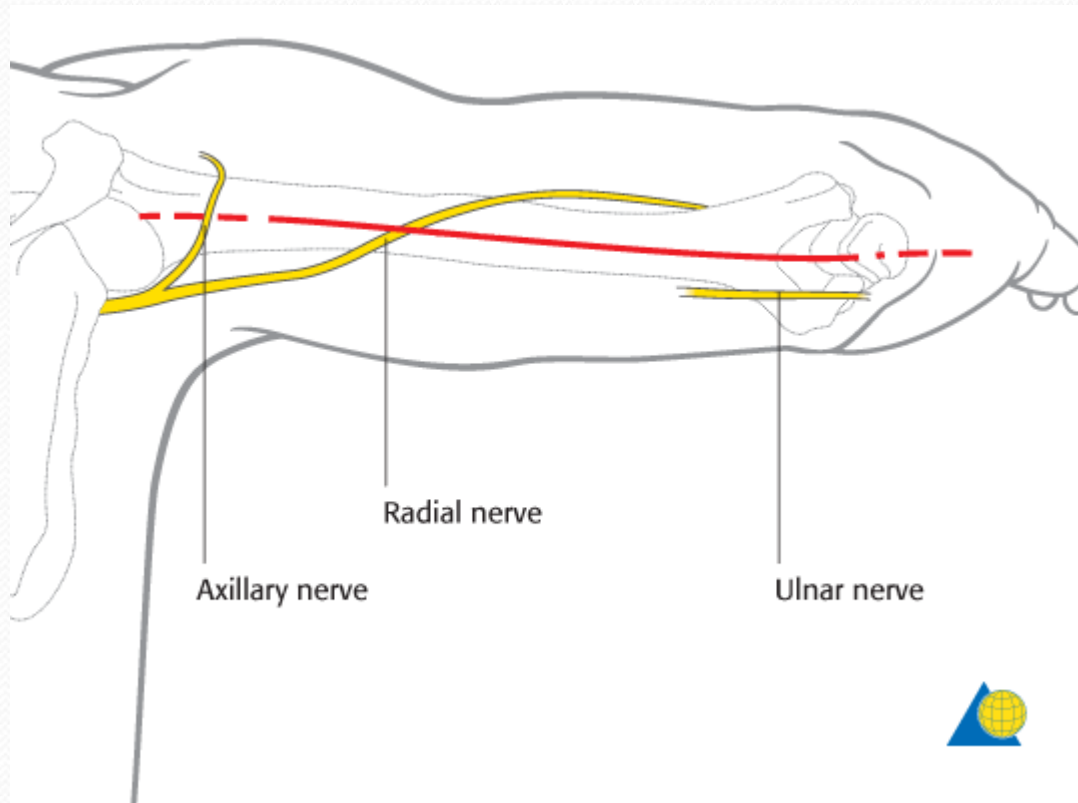
- Arise from posterior cord of brachial plexus
- Arise from root C5, C6, C7, C8 & T1.



Radial Nerve

- It goes descending obliquely through the arm, first in the posterior compartment of the arm, and later in the anterior compartment of the arm, and continues in the posterior compartment of the forearm.
- The radial nerve enter the arm behind the axillary artery and then travel posteriorly on the medial side of the arm.

Posterior View of Upper Arm



Radial Nerve

- Then radial nerve will innervate triceps brachii.
- Radial nerve then enter the radial groove.
- Radial nerve emerge from radial groove and enter the anterior compartment of the arm.
- It continue the journey between brachialis and brachioradialis.
- When the radial nerve reaches the distal part of the humerus, it passes anterior to the lateral epicondyle and continue to the forearm.

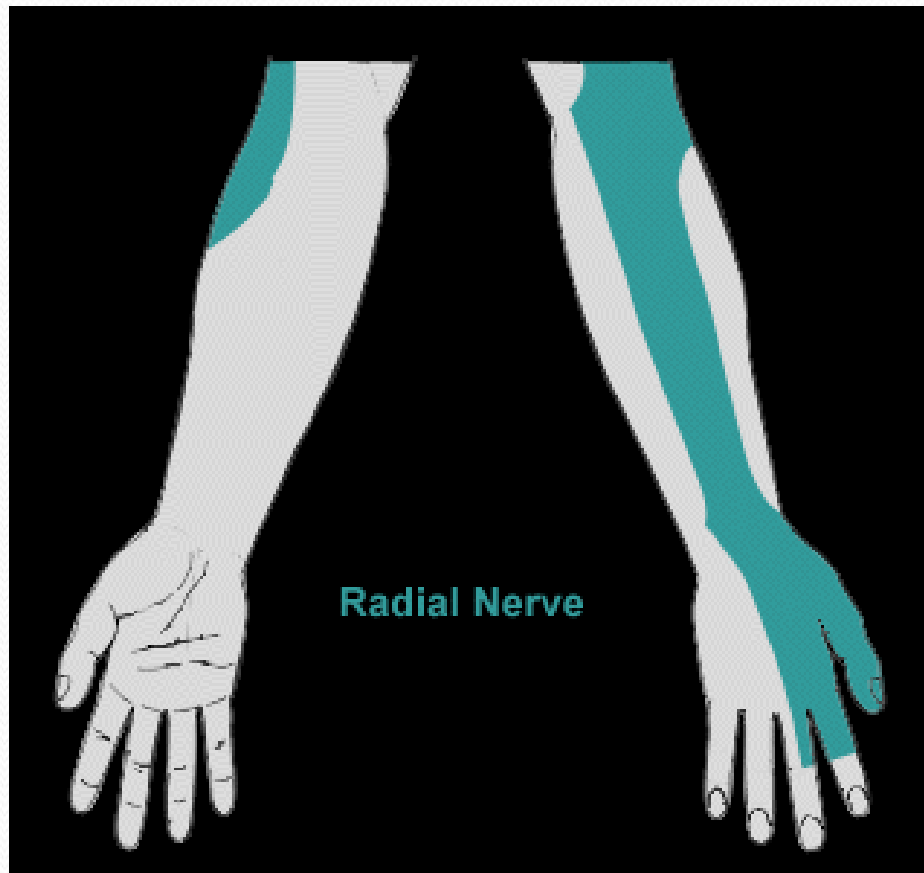
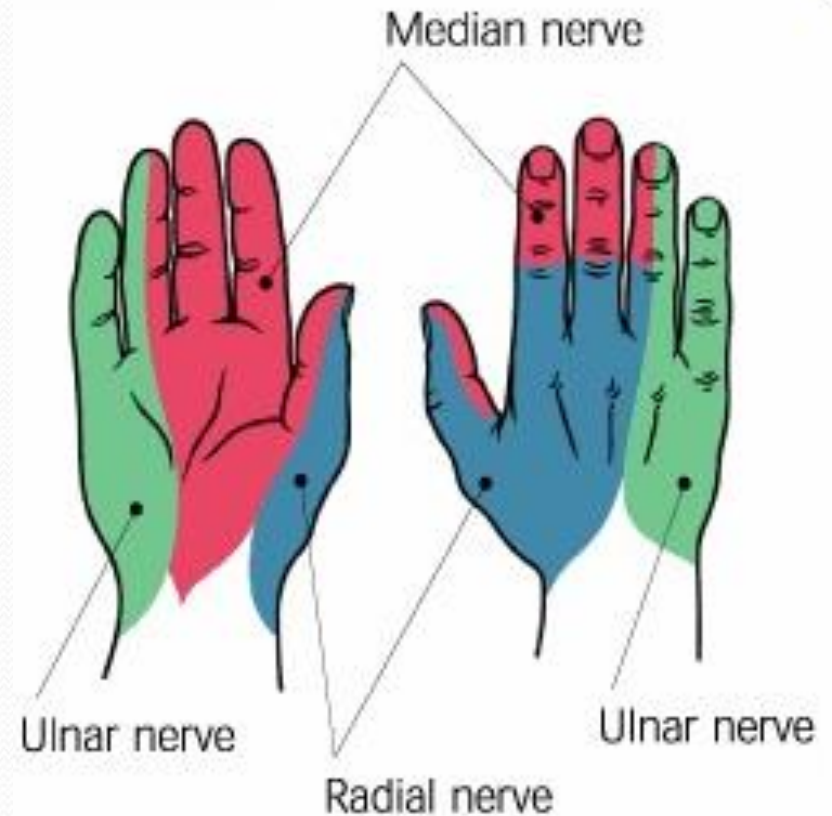
Radial Nerve

- In the forearm, it will branch of to superficial branch (mainly sensory) and deep branch (mainly motor).
- **Cutaneous innervation** is provided by nerve that arise from radial nerve.
 - Posterior brachial cutaneous nerve
 - Inferior lateral brachial cutaneous nerve
 - Posterior antebrachial cutaneous nerve
 - Superficial branch of radial nerve

Radial Nerve

- Posterior cutaneous nerve of arm (posterior brachial cutaneous) - provides sensory innervations for much of the skin on the back of the arm.
- Inferior lateral cutaneous nerve of arm (inferior lateral brachial cutaneous) - provides sensory and vasomotor innervation to the lower, lateral aspect of the arm.
- Posterior cutaneous nerve of forearm (posterior antebrachial cutaneous).-skin of the posterior of the forearm
- Superficial branch – back of the hand

Radial Nerve Dermatomes



Radial Nerve

- **Motor innervations**
- Triceps brachii, anconeus, brachioradialis, supinator and mostly posterior compartment extrinsic hand muscles.

Cont...

- The radial nerve is often injured in its course close to the humerus, either from fracture or pressure from direct blow to the humerus (incorrect use of a crutch)
- Triceps usually escapes because derivation of the nerve giving off high in arm, but total paralysis of the extensor of the wrist and digits leads to the **dropped wrist deformities**.

LI-4 HeGu

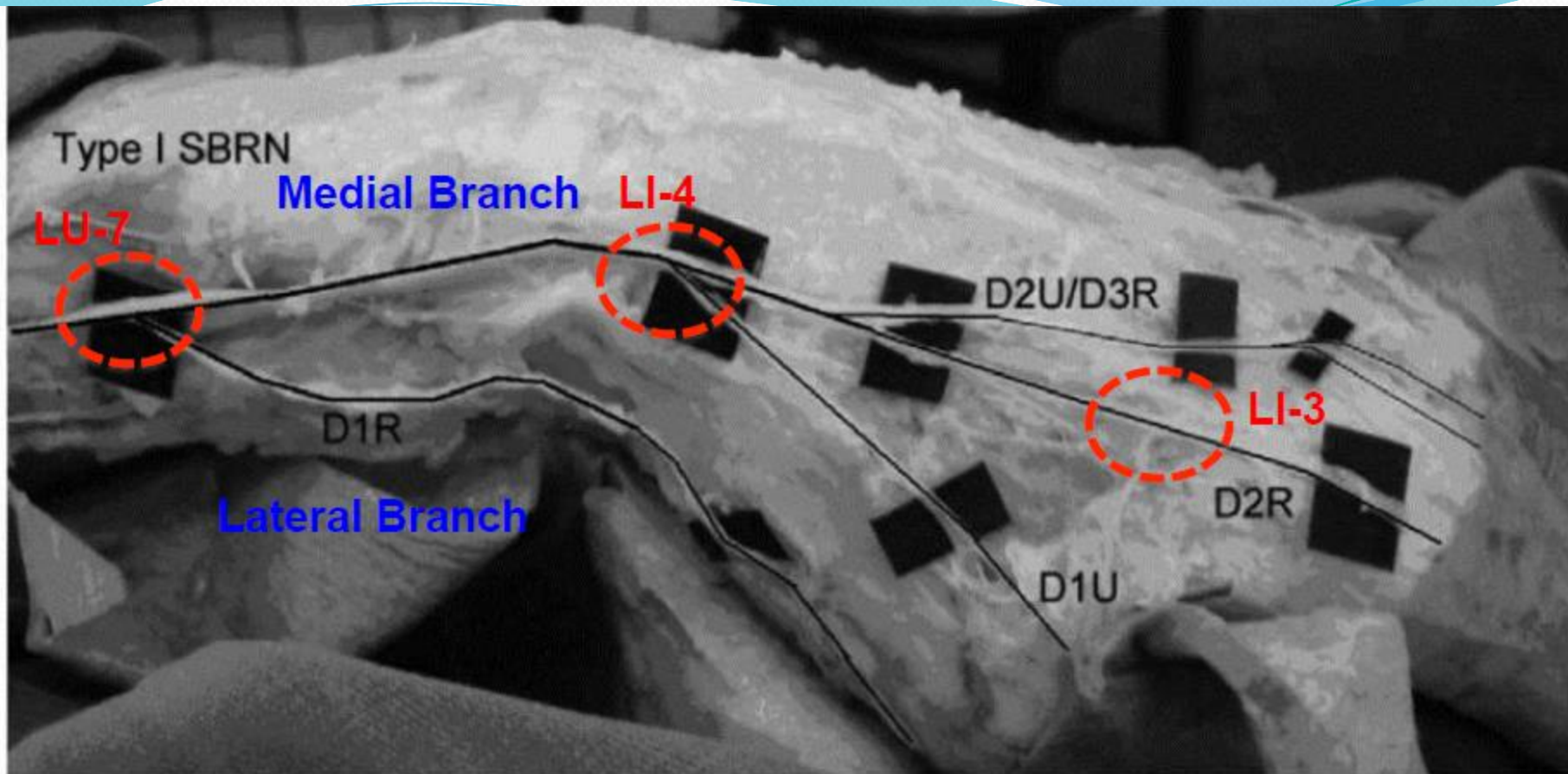
Union Valley

- Bifurcation of the Medial Branch of Superficial Radial Nerve
- 合谷，一名虎口，在手大指次指間，手陽明脈之所過也，為原。刺入三分，留六呼，灸三壯。
- Systematic Classic: LI-4, also known as Tiger Mouth, between the large and next digit of the hand, where Hand YangMing channel passes, Yuan-Source point. Puncture 3 fen, retain 6 exhalation, moxa 3 cones.

LI-3 SanJian

Third Space

- Second Dorsal Digital Nerve-Radial Side (D2R from Medial Branch of SRN)
- 三間者，木也。一名少谷，在手大指次指本節後內側陷者中，手陽明脈之所注也，為俞。刺入 三分，留三呼，灸三壯。
- Systematic Classic: LI-3, Wood element. Also known as Lesser Valley, in depression on the inner side behind the root node of the large digit and next digit of the hand, where Hand YangMing channel pours, Shu-Stream point. Puncture 3 fen, retain 3 exhalation, moxa 3 cones.

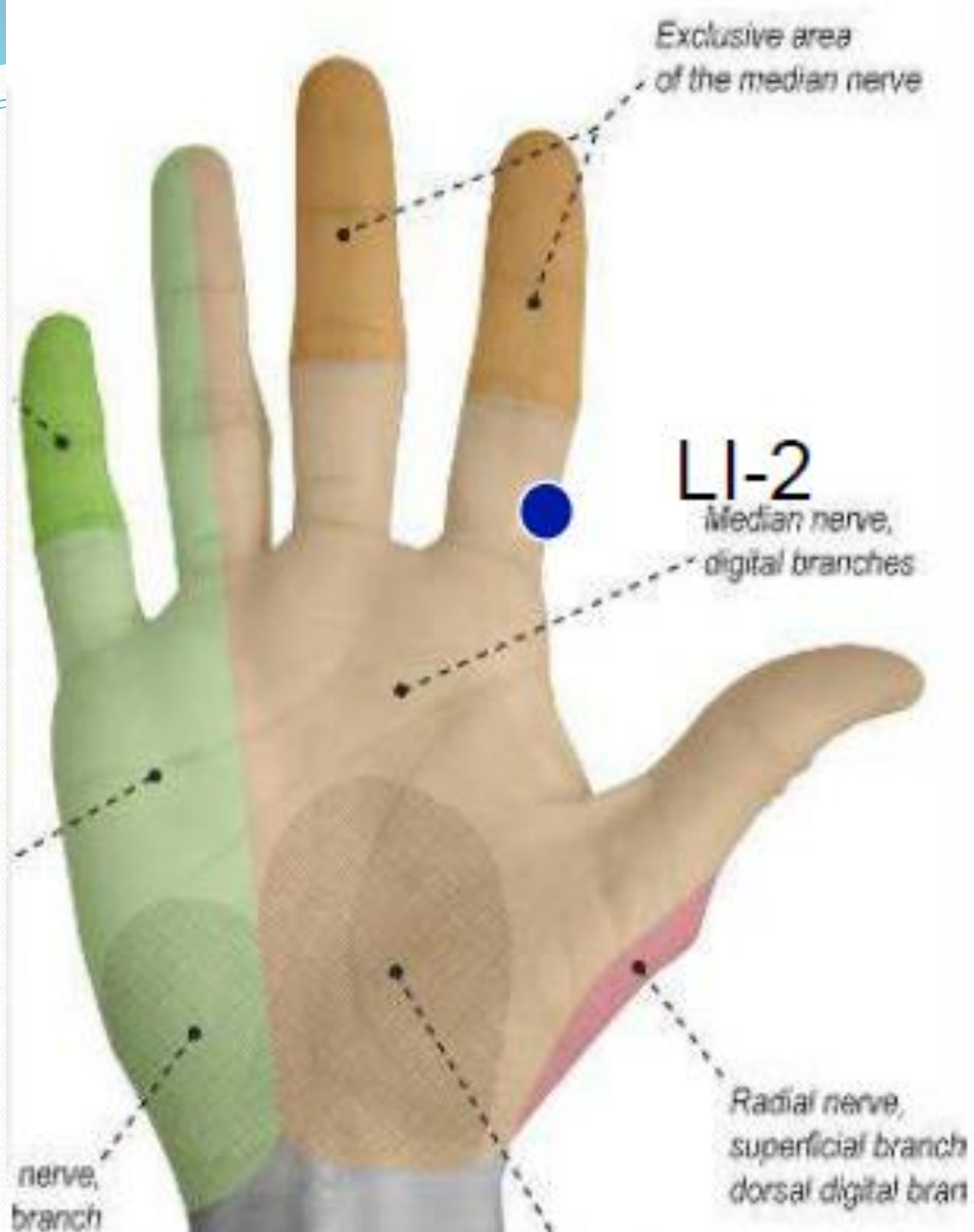


Adapted from David Mok et al (2006) Cutaneous Innervation of the dorsal hand: detailed anatomy with clinical implications, Journal of Hand Surgery: Vol 31A No 4. pp565-574

LI-2 ErJian

Second Space

- Junction of Dorsal digital nerve (Superficial Radial Nerve) & Proper Palmar Digital (Median Nerve)
- 二間者，水也。一名間谷，在手大指次指本節前內側陷者中，手陽明脈之所留也，為榮。刺入三分，留六呼，灸三壯。
- Systematic Classic: LI-2, Water element. Also known as Space-Valley, in depression on the inner side in front of the root node of the large digit and next digit of the hand, where Hand YangMing channel flows, Ying-Spring point. Puncture 3 fen, retain 6 breath, moxa 3 cones.



LI-1 ShangYang

Shang Yang

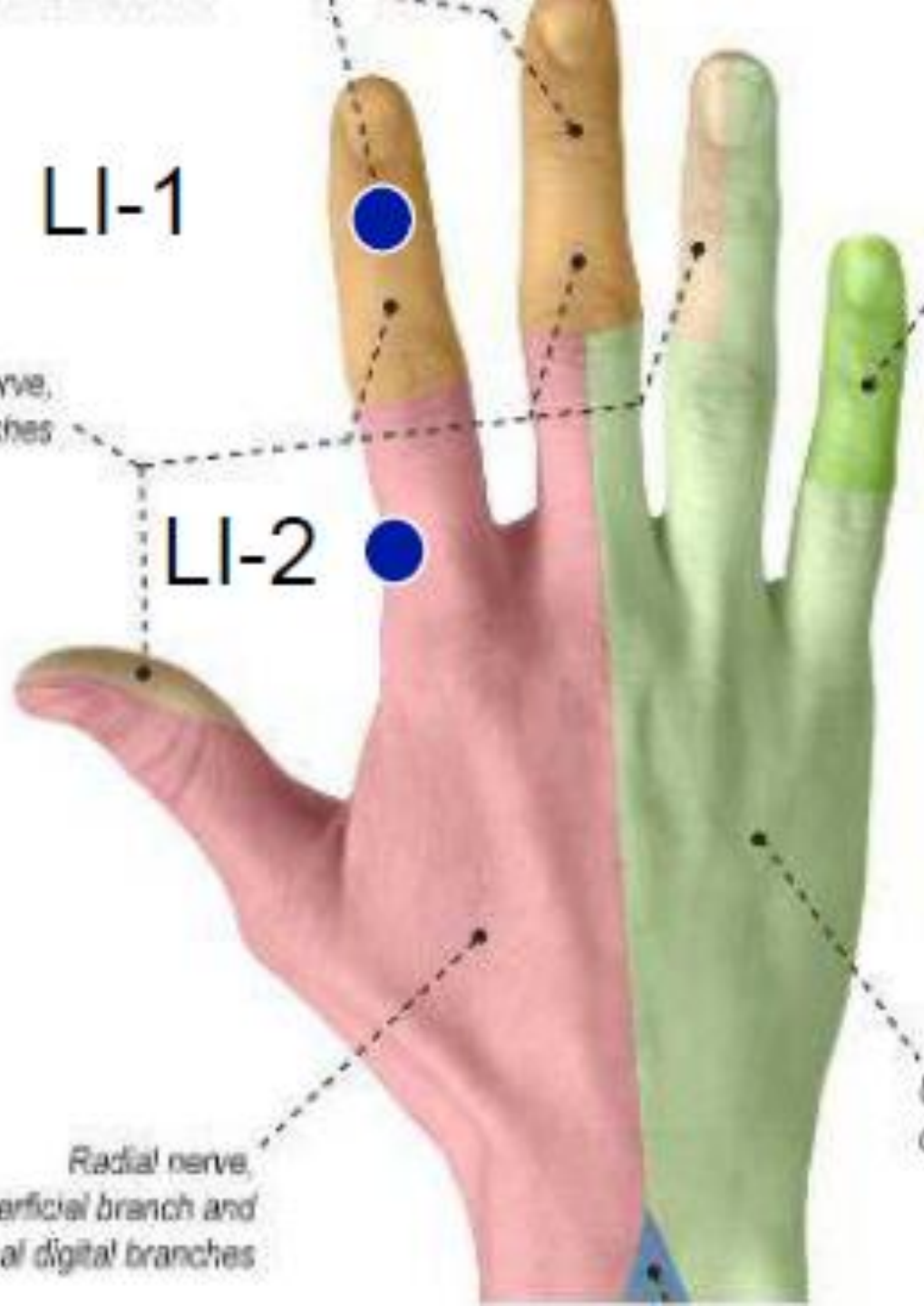
- Proper Palmar Digital Nerve (Median Nerve)
- 商陽，大指次指之端也，為井金
- Spiritual Pivot: LI-1, on the highest point of the digit next to the large digit, Jing-Well Metal point.
- 商陽者，金也。一名絕陽，在手大指次指內側，去爪甲角如韭葉，手陽明脈之所出也，為井。刺入一分，留一呼，灸三壯。
- Systematic Classic: LI-1, Metal element. Also know as Cut-off Yang, on the inner side of the finger next to the big finger, toward the angle of the nail like leek leaf, where Hand YangMing channel exits, Jing-Well point. Puncture 1 fen, retain 1 exhalation, moxa 3 cones.

LI-1

Median nerve,
digital branches

LI-2

Radial nerve,
superficial branch and
dorsal digital branches



Lung Channel According to Spiritual Pivot Chapter 10

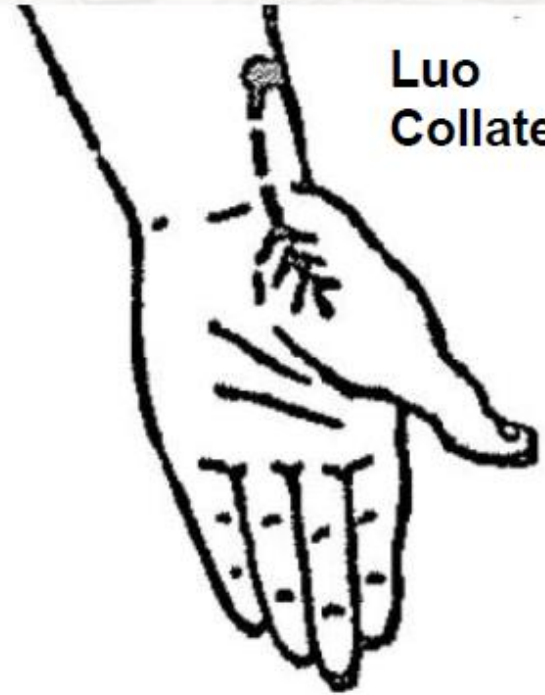
- “Lung Hand TaiYin Channel... enters CunKou (radial styloid process), up the fish, follows LU-10, exits the tip of large finger; its branch exits behind the wrist directly exits the inner surface of the second finger at its tip.”
- “入寸口，上魚，循魚際，出大指之端；其支支者，從腕後直出次指內廉出其端”

- “Hand TaiYin separation, named LU-7. Starts between separation above the wrist, merge TaiYin Channel, directly enters palm, scattering into LU-10.”
- “手太陰之別，名曰列缺。起於腕上分間，並太陰之經，直入掌中，散入於魚際”

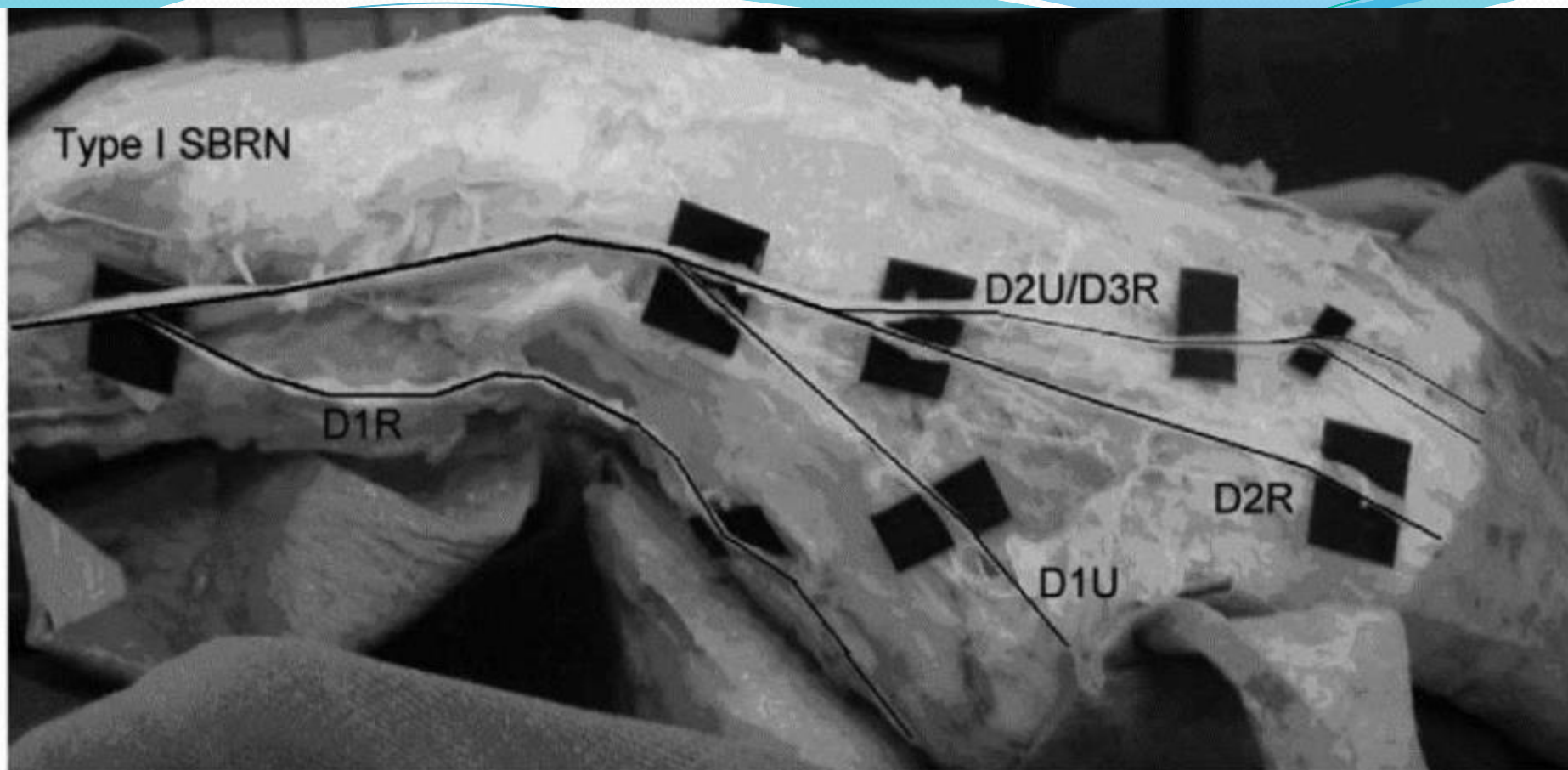
Lung Channel



**Primary
Channel**



**Luo
Collateral**

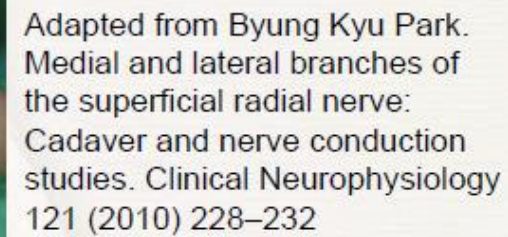


Adapted from David Mok et al (2006) Cutaneous Innervation of the dorsal hand: detailed anatomy with clinical implications, Journal of Hand Surgery: Vol 31A No 4. pp565-574

LU-8 JingLiang Channel Ditch

- Lateral (Palmar) Branch of Superficial Radial Nerve
- 經渠者，金也。在寸口陷者中，手太陰之所行也，為經。刺入三寸，留三呼，不可灸，灸之傷人神
- 明。
- Systematic Classic: LU-8, Metal element. Located in the depression of the CunKou (Radial pulse), where the Hand TaiYin courses, Jing-River point. Puncture 3 cun, retain 3 exhalation, forbidden to moxa, moxa will injure one's spirit brilliance.

- **Comment:** Stimulation of LU-8 with a Pointer Plus device gives a sensation on the thenar surface and palmar side of the thumb, consistent with the trajectory of the LU channel. The recommended depth of 3 cun is most likely an error, the original author(s) most likely meant 3 fen.



Adapted from Byung Kyu Park.
Medial and lateral branches of
the superficial radial nerve:
Cadaver and nerve conduction
studies. *Clinical Neurophysiology*
121 (2010) 228–232

LU-7 LieQue 列缺

Broken Sequence

- Bi/Trifurcation of Superficial Branch of Radial Nerve
- 列缺，手太陰之絡，去腕上一寸五分，別走陽明者，刺入三分，留三呼，灸五壯。
- Systematic Classic: The Luo of the Hand TaiYin, 1.5 cun above the wrist, separating into the Yang Ming, puncture 3 fen, retain 3 exhalation, moxa 5 cones.

- **Comment:** The LU Primary Channel is said to branch from LU-7 into the LI channel (index finger). This branching is in agreement with the known distribution of the Superficial Branch of the Radial Nerve, which provides sensory innervation for the first web-space between the thumb and index finger, on the dorsal side only. The LU Luo-Connecting Channel branches from LU-7 to the thenar eminence. This innervation is from the Lateral (Palmar) Branch of SRN that is accessible via LU-8.



CAM-HDE, School of Medicine, Queens University

Articular Innervation of the Wrist

Palmar (Left)

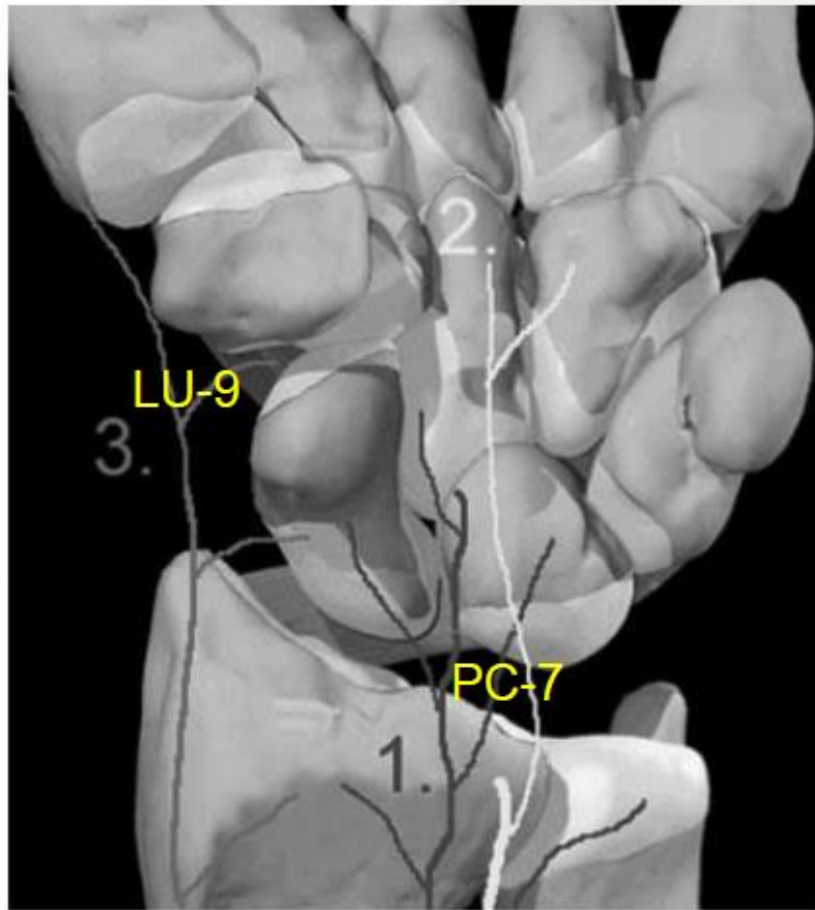


Figure 4. Innervation of palmar aspect of wrist joint. This drawing presents a global overview of the course of the nerves and does not indicate nerve endings. 1, AIN; 2, PCB of median nerve; 3, LACN.

Dorsal (Left)

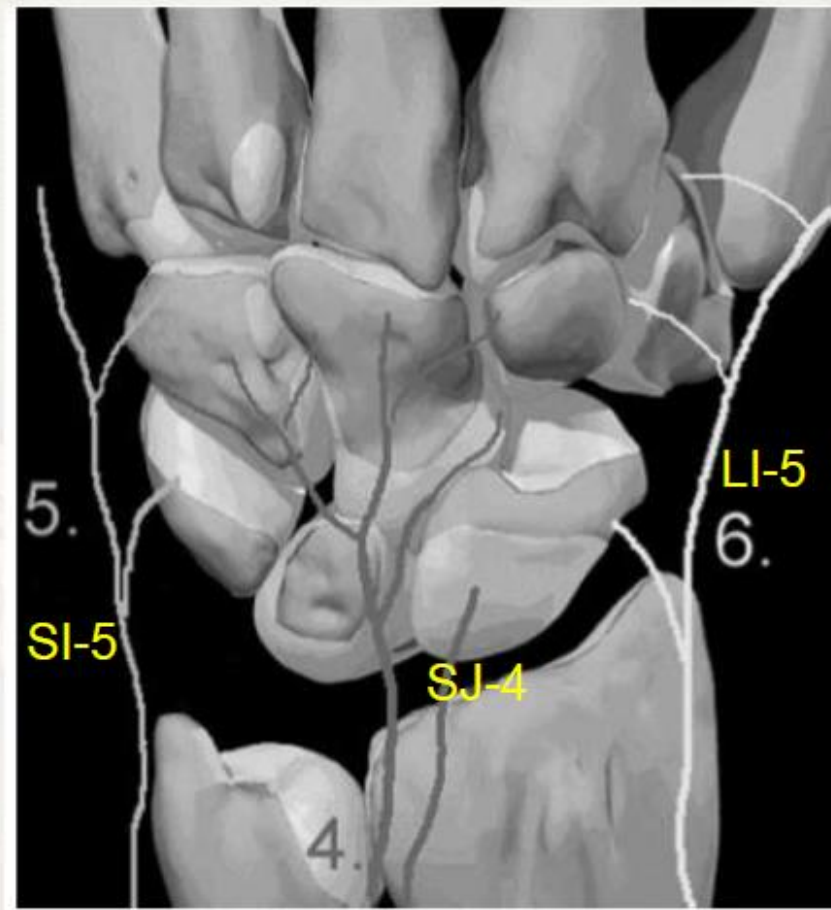
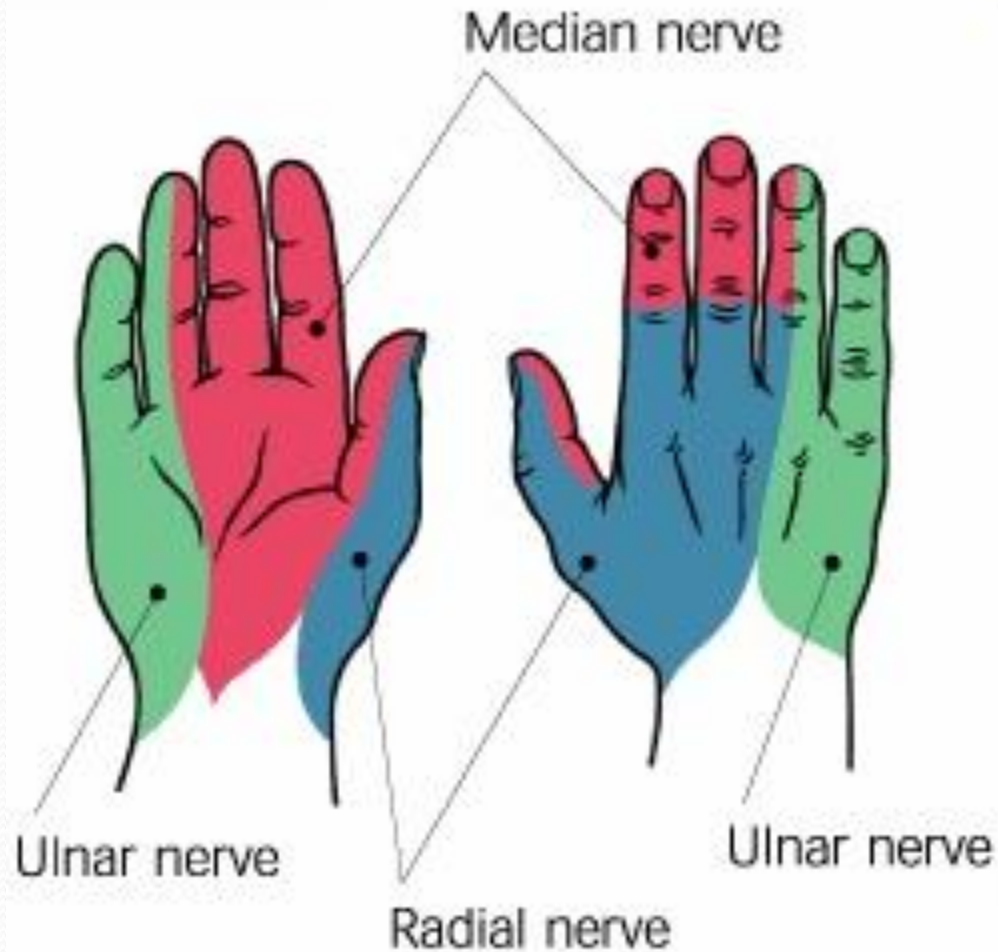


Figure 5. Innervation of dorsal aspect of wrist joint. This drawing presents a global overview of the course of the nerves and does not indicate nerve endings. 4, PIN; 5, DBUN; 6, SBR.

Hand Dermatomes



Cont...

- Ulnar nerve may be damaged in the groove behind the medial epicondyle either by trauma or entrapment.
- Leads to partial or completely lost of muscular and sensory innervations.
- The results of the ulna nerve lesion leads to the typical **'claw hand'** deformities.
- Due to lost of the power in the intrinsic hand muscles and unopposed actions of antagonistic muscles group.
- Wasting of hypothenar eminence.
- There are 'guttering between metacarpals, inability to abduct the fingers or adduct the thumb.
- Sensory lost

LU-9 TaiYuan

Great Abyss

- Articular Branch Lateral Antebrachial Cutaneous Nerve
- 太淵者，土土也。在掌後陷者中，手手太陰脈之所注也，為俞。刺入入二二分，留二二呼，灸三壯。
- Systematic Classic: LU-9, Earth element. Located in the depression behind the palm, where the Hand TaiYin channel pours in, Shu-Stream point. Puncture 2 fen, retain 2 exhalation, moxa 3 cones.
- **Comment:** LU-9 is the Influential point of vessel, but in Systematic Classic, this point is not located by palpating the Radial pulse.

SI-5 YangGu

Yang Valley

- Articular Branch of Dorsal Cutaneous Branch of Ulnar Nerve
- 陽谷者，火也。在手外側腕中，兌骨下陷者中，手太陽脈之所行也，為經。刺入二分，留二呼，灸三壯。
- Systematic Classic: SI-5, Fire element. In the wrist on the outer side, in depression below the exchange bone, where Hand TaiYang channel courses, Jing-River point. Puncture 2 fen, retain 2 exhalations, moxa 3 cones.

SJ-4 YangChi

Yang Pool

- Articular Branch of Posterior Interosseous Nerve
- 在腕上陷者之中也，為原
- Spiritual Pivot: In centre of the depression above the wrist, Yuan-Source point.
- 陽池，一名別陽，在手表上腕上陷者中，手少陽脈之所過也，為原。刺入二分，留三呼，灸五壯。
- Systematic Classic: SJ-4, alternate name is Separate Yang, in the depression on the exterior of the hand above the wrist, where the Hand ShaoYang channel passes, Yuan-Source point.
- Puncture 2 fen, retain 3 exhalations, moxa 5 cones.

LI-5 YangXi

Yang Ravine

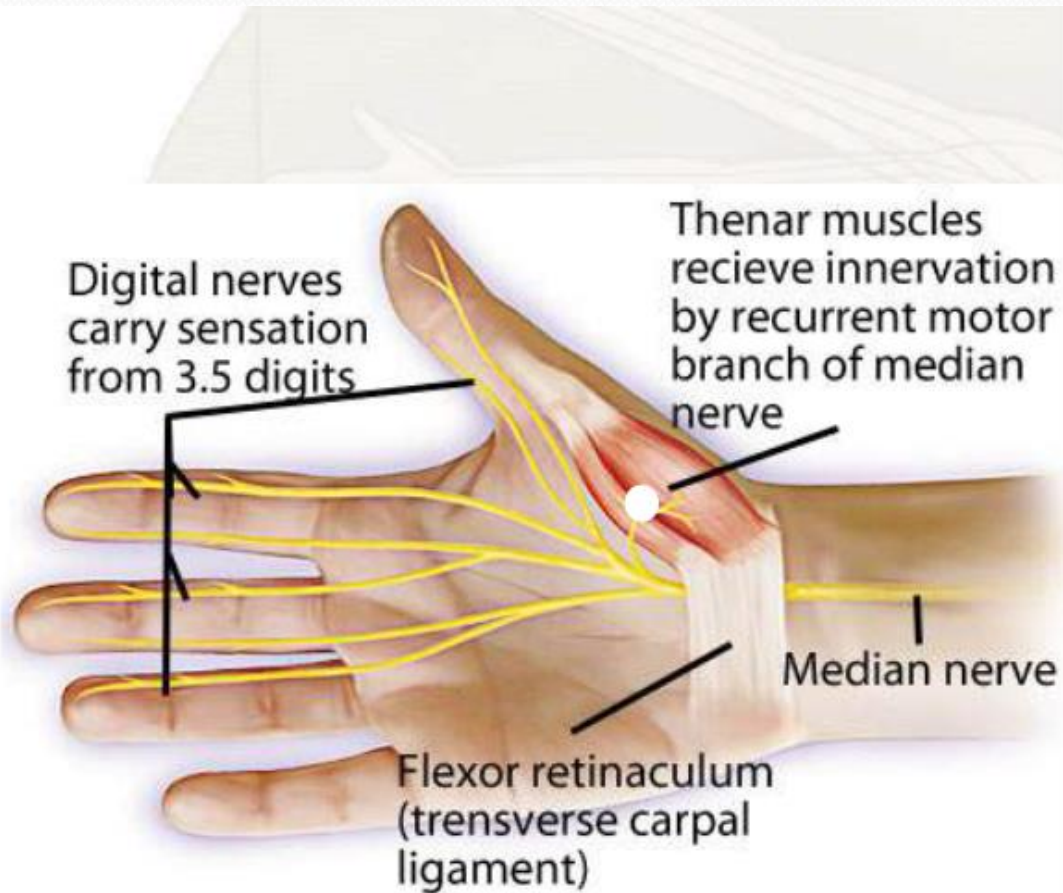
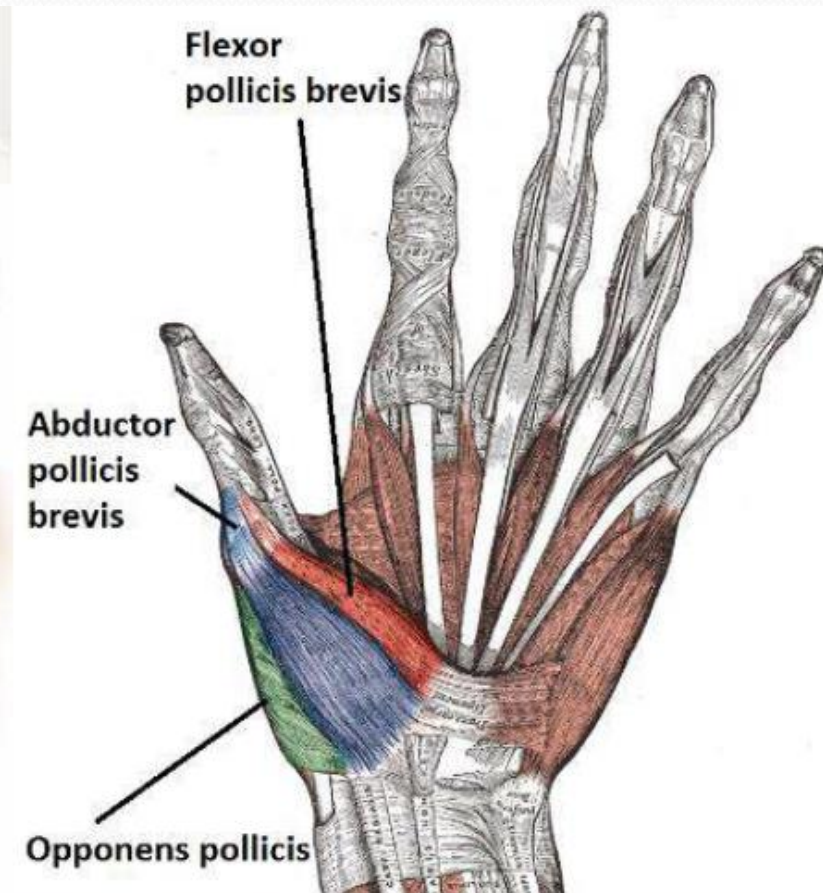
- Articular Branch of Superficial Radial Nerve
- 陽溪，在兩筋間陷者中也，為經
- Spiritual Pivot: LI-5, in depression between two sinews, Jing-River point.
- 陽溪者，火也。一名中魁，在腕中上側兩傍間陷者，手陽明脈之所行也，為經。刺入三分，留七呼，灸三壯。
- Systematic Classic: LI-5, Fire element. Also know as Middle Chief, in depression on the top of the wrist between 2 sides, where Hand YangMing courses, Jing-River point. Puncture 3 fen, retain 7 exhalation, moxa 3 cones.

- 
- **Comment:** Unlike Spiritual Pivot, the Systematic Classic does not describe the 2 sinews which make up the anatomical snuff box (Extensor Hallucis Brevis & Longus)

LU-10 YuJi

Fish Border

- Recurrent Motor Branch (Median Nerve); Thenar Muscle TP: Abductor Pollicis Brevis; Flexor Pollicis Brevis; Opponens Pollicis
- 魚魚際者，火火也。在手手大大指本節後內側散脈中，手手太陰脈之所溜也，為榮。刺入入二二分，留三呼，灸三壯。
- Sytematic Classic: LU-10, Fire element. In the scattered vessels on the inner side of the large finger behind the root node, where Foot TaiYin channel flows, Ying-Spring point. Puncture 2 fen, retain 3 exhalations, moxa 3 cones.



LU-11 ShaoShang

Lesser Shang

- Junction of Dorsal Digital Branch of Superficial Radial Nerve & Palmar Digital Branch of Median Nerve
- 手大指端內側也，為井木
- Spiritual Pivot: On the inner side of the highest point of the hand large digit., Jing-Well Wood element.
- 少商者，木木也。在手大指端內側，去爪甲如韭葉，手太陰脈之所出也，為井。刺入一分，留一呼，灸一壯。
- Systematic Classic: L-11, Wood element. On the inner side of the highest point on the large digit of the hand, toward the angle of the nail like leek leaf, where Hand TaiYin channel exits, Jing-Well point. Puncture 1 fen, retain 1 exhalation, moxa 1 cone.

SJ-6 ZhiGou

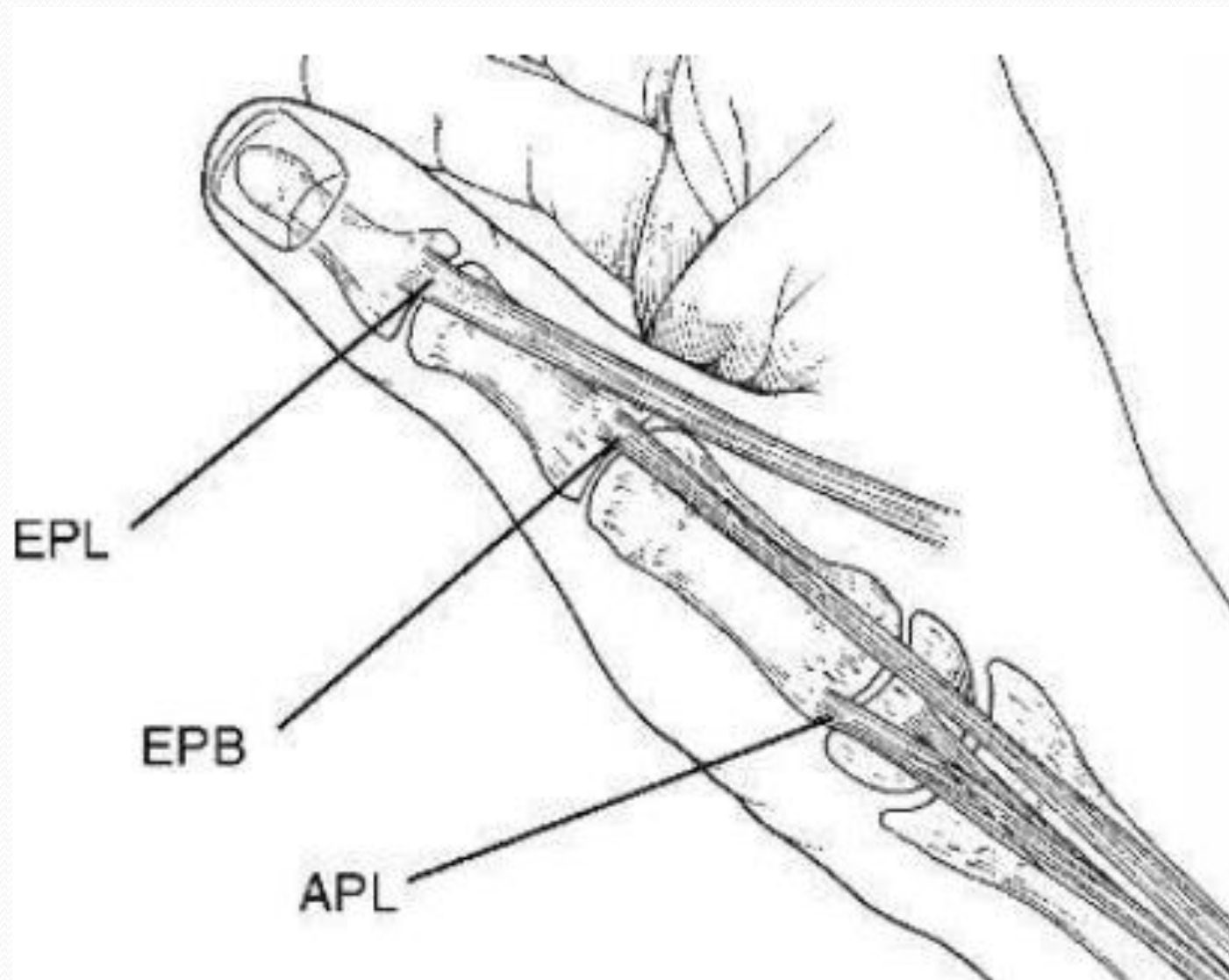
Branch Ditch

- Extensor Pollicis Brevis
- 支溝者，火也。在腕後三寸，兩骨之間陷者中，手少陽脈之所行也，為經。刺入二分，留七呼，灸三壯。
- Systematic Classic: SJ-6, Fire element. 3 cun behind the wrist, in depression between two bones, where the Hand ShaoYang meridian courses, Jing-Stream point. Puncture 2 fen, retain 7 exhalation, moxa 3 cones.
- **Comment:** Extensor Pollicis Brevis and Abductor Pollicis Longus tendons are involved in de Quervain's tenosynovitis. SJ-6 and SJ-8 can help lengthen these shortened muscles that are contributing to the shortening and inflammation of the synovial sheath.

SJ-7 HuiZong

Convergence Gathering

- Extensor Pollicis Longus
- 會宗，手少陽，在腕後三寸空中，刺入三分，灸三壯。
- Systematic Classic: SJ-7, Hand ShaoYang, in space 3 cun behind the wrist, puncture 3 fen, moxa 3 cones.

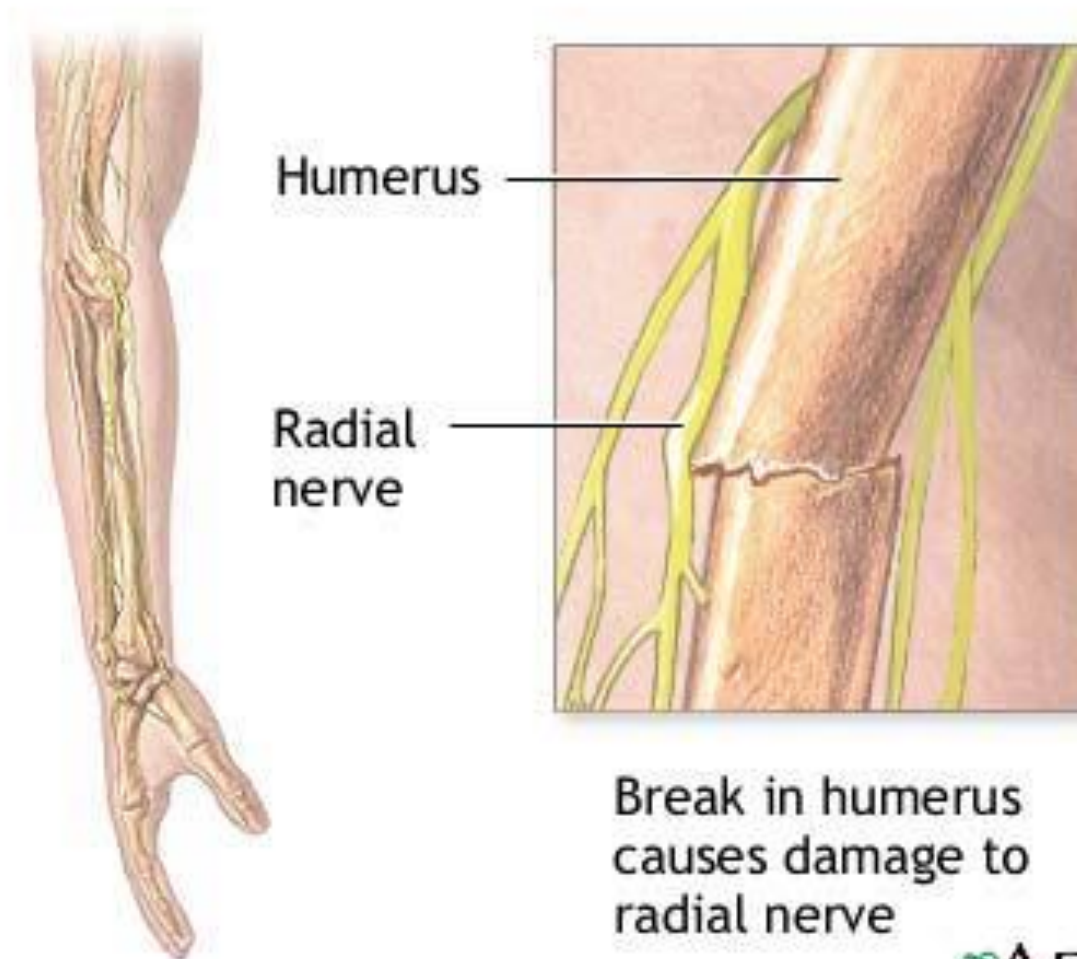


Wrist Dropped



Paralysis
Wrist Extensors

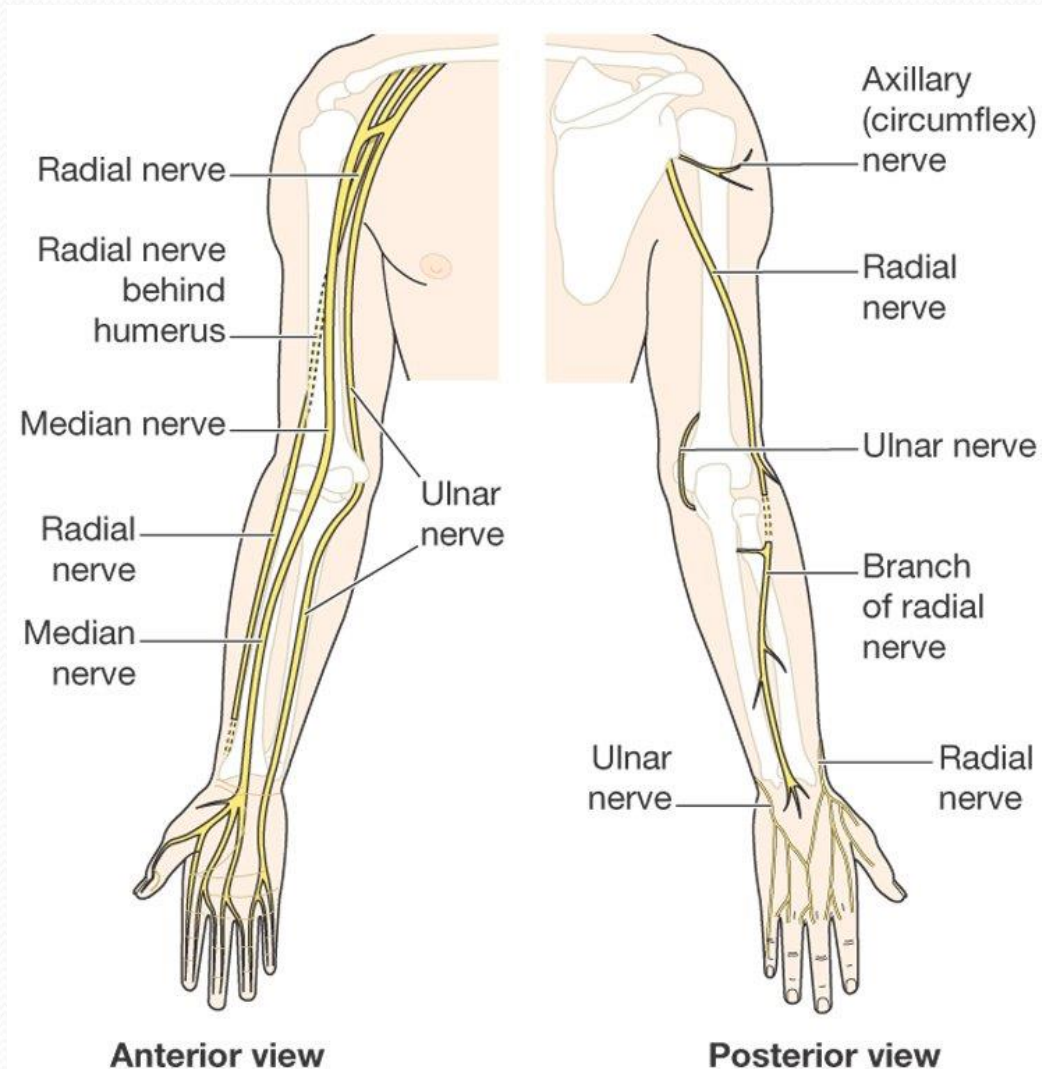
Fracture of the humerus



Ulnar nerve

Ulnar Nerve

- Arise from medial cord of brachial plexus
- Root C8 and T1 (mostly C7)
- Descend on the posteromedial of the humerus.
- Then it goes posterior to the medial epicondyle.

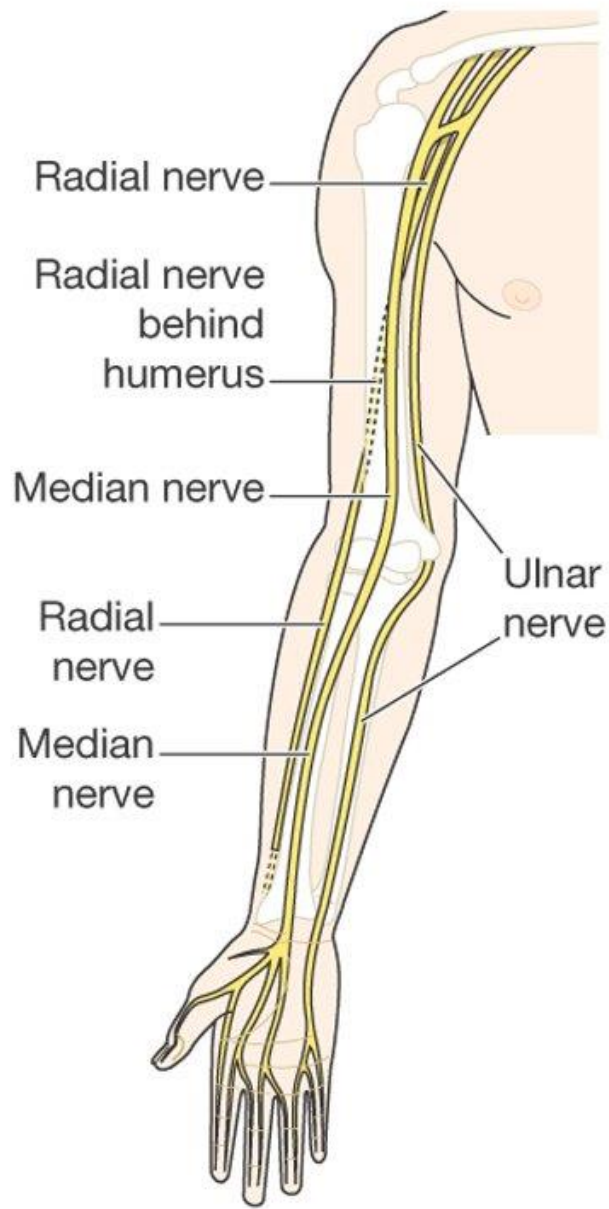


Ulnar Nerve

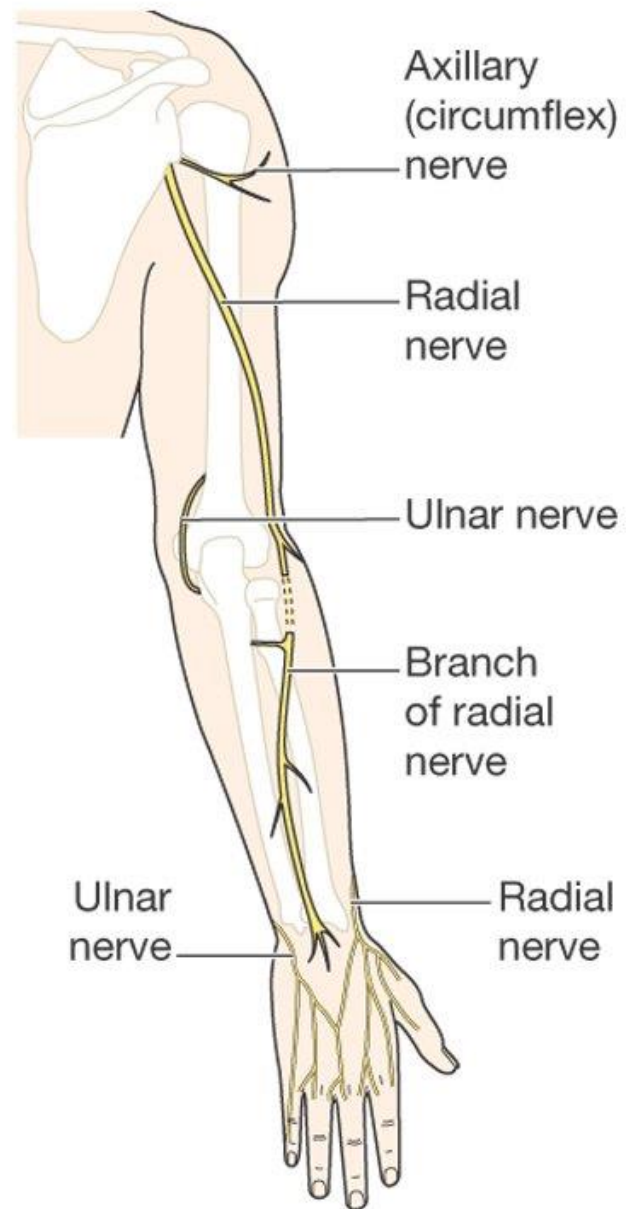
- Enter anterior compartment muscles of forearm and supplies flexor carpi ulnaris and medial half flexor digitorum profundus.
- Then ulna nerve enter palm of the hand and branch off to the **superficial branch** and **deep branch**.
- Deep branch innervate hypothenar muscles, intermediate hand muscles and thenar hand muscles (adductor pollicis, flexor pollicis brevis (rare))

Ulnar Nerve

- Superficial branches of Ulnar nerve will innervate palmaris brevis and skin anterior and posterior of the hand (medial aspect of the hand/ one and half digits)

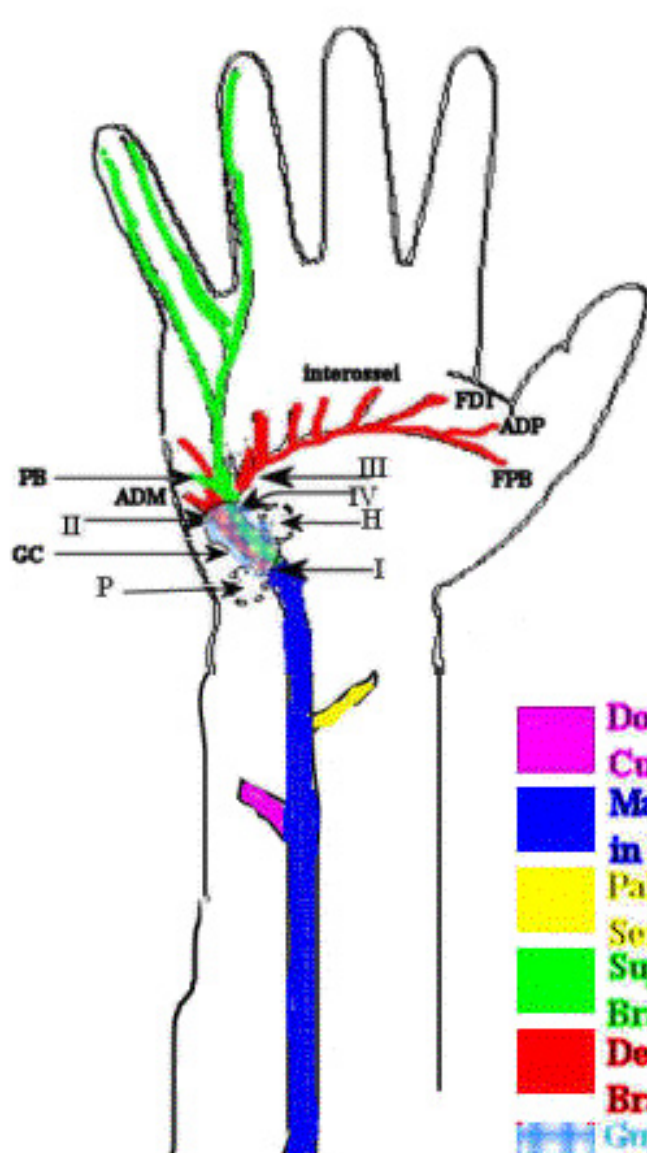


Anterior view

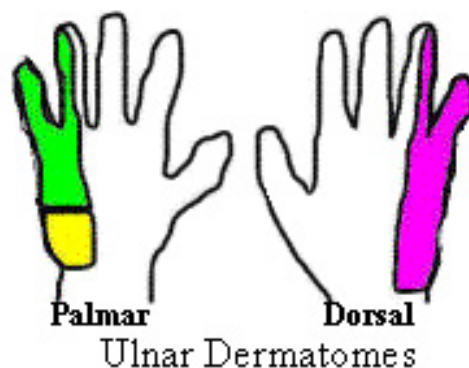


Posterior view

Ulnar Nerve: Forearm, Guyon's Canal, and Hand



- Dorsal Ulnar Cutaneous nerve
- Main Trunk of Ulnar in Distal Forearm
- Palmar Cutaneous Sensory Nerve
- Superficial Terminal Branch of Ulnar
- Deep Terminal Branch of Ulnar
- Guyon's Canal



Common Ulnar Impingement Sites: Guyon's Canal Region

- I. At the very entrance of Guyon's canal or just within it, potential impacting all terminal branches (red and green).
- II. Right after the nerve comes out of the canal, impacting the deep terminal motor branch (red). No sensory loss.
- III. The deep motor branch after the branch to the hypothenar muscles has taken off. Motor loss except in hypothenar area. No sensory loss.
- IV. The superficial terminal branch (green). All sensory except for a small branch (PB) to the palmaris brevis muscle. Sensory loss on the fifth and the ulnar half of the 4th digit.

Abbreviations

M. - Muscle

PB-Branch to Palmaris Brevis M.

ADM-Adductor Digiti Minimi M., also represents other hypothenar muscle including flexor and Opponens digiti minimi

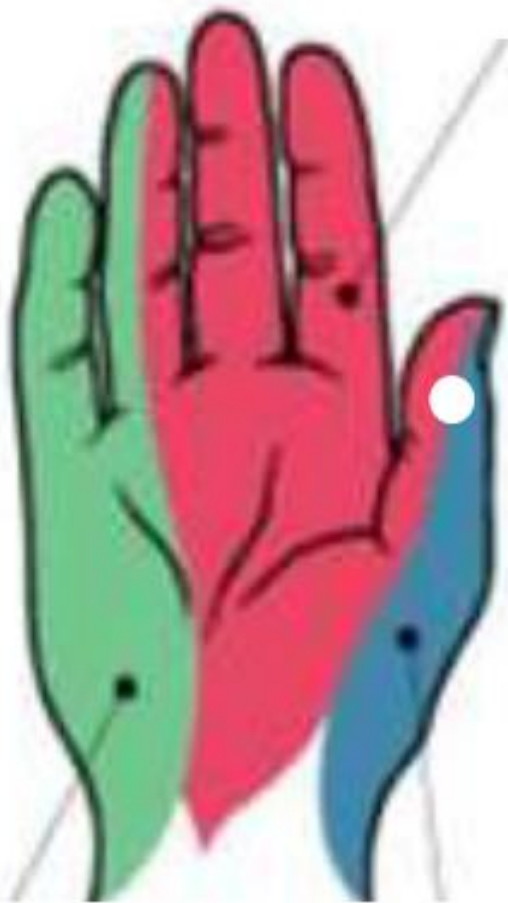
FDI-First Dorsal Interosseus M.

ADP-Adductor Pollicis M.

FPB-Flexor Pollicis Brevis M.

GC-Guyon's Canal; P Pisiform bone; H hamate bone
Interossei-Interosseous muscle of the hand. Other ulnar Intrinsic hand muscles are also similarly innervated

Palmar Digital Branch of Median N.



Superficial Br.
Ulnar



Superficial
Radial N.

Dorsal
Cutaneous Br.
Ulnar N.

SI-4 WanGu

Wrist Bone

- Deep Motor Branch of Ulnar Nerve
- 腕骨，在手外側腕前，起骨下陷者中，手太陽脈之所過也，為原。刺入二分，留三呼，灸三壯。
- Systematic Classic: Si-4, on outer side of hand in front of the wrist, in depression below the raised bone, where Hand TaiYang channel travels, Yuan-Source point. Puncture 2 fen, retain 3 breath, moxa 3 cones.

- **Comment:** The Deep Branch of the Ulnar Nerve innervates all the hypothenar muscles, all the interosseous muscles, only the 3rd and 4th lumbricals, adductor pollicis and medial head of flexor pollicis brevis.
- The insertion is towards the space between the pisiform and hook of the hamate bone. Stimulation with a Pointer-Plus device should recruit the hypothenar and thenar muscles to confirm proper stimulation of the Deep Motor Branch of Ulnar Nerve.

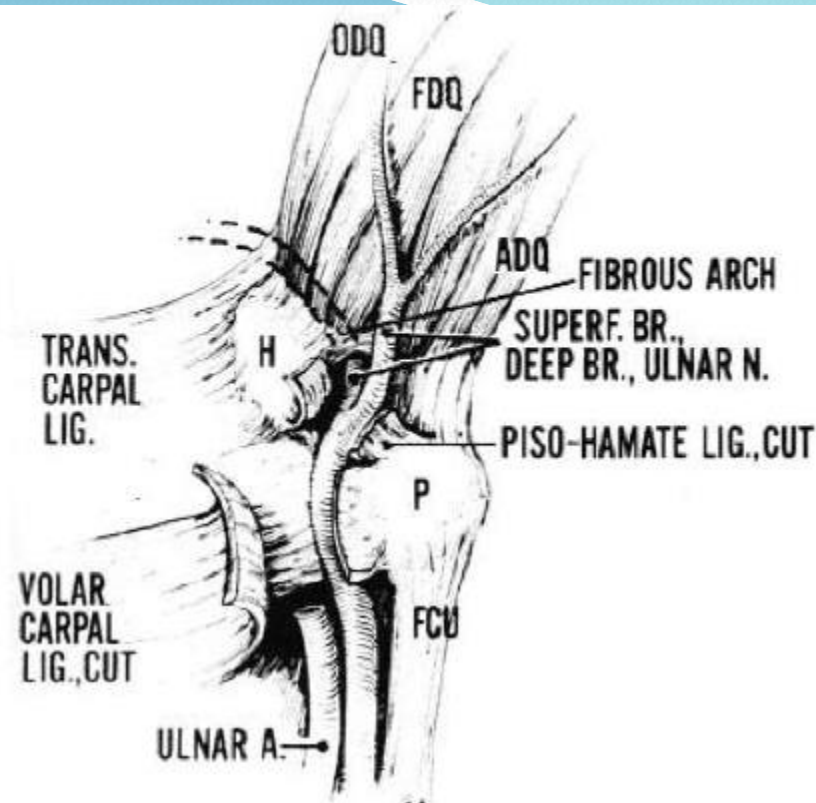


Fig 9. The ulnar nerve in Guyon's Canal is shown. (Reprinted with permission from Szabo RM: *Entrapment and Compression Neuropathies*. In Green DP, Hotchkiss RN, Pederson WC (eds). *Green's Operative Hand Surgery*. (Green's Operative Hand Surgery. Ed 4. Philadelphia, Churchill Livingstone 1404–1447, 1999.) ADQ = Abductor Digiti Quinti; A = artery; BR = branch; FDQ = Flexor Digiti Quinti; FCU = Flexor Carpi Ulnaris; Lig = ligament; OPQ = Opponens Digiti Quinti.

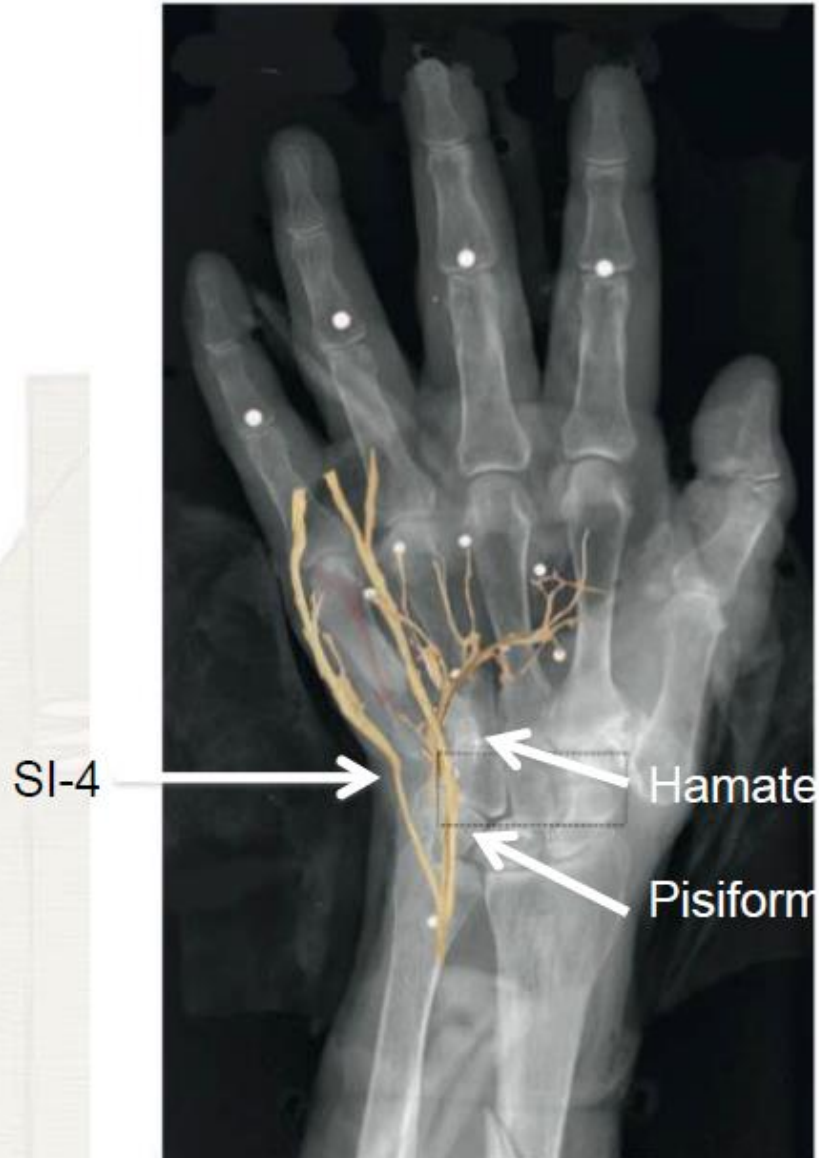
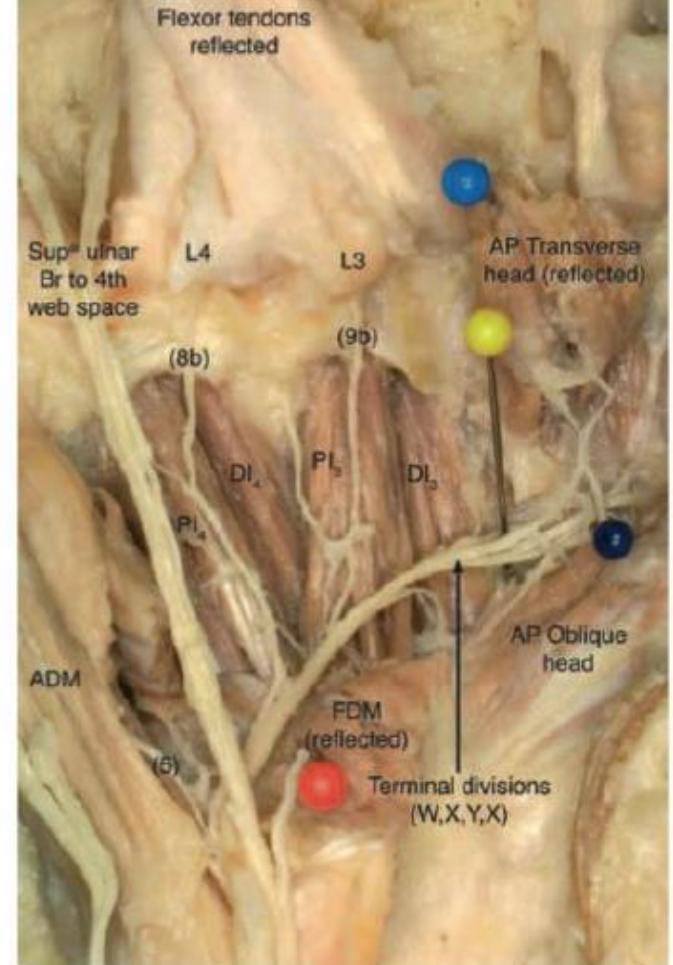


Fig 1 Digital photograph of the dissected deep branch of the ulnar nerve (right side) that has been edited and then superimposed onto an X-ray of the same hand.



Cadaveric dissection of the right ulnar nerve. The superficial ulnar nerve is seen on the left side of the image. A tendinous arch formed by the hypothenar muscles has been retracted to expose the deep motor branch. The nerve courses radially over the interossei and then divides into four main terminations as it passes dorsally to the adductor pollicis (heads retracted in the specimen). [ADM = adductor digiti minimi, FDM = flexor digiti minimi, H = hamate, AP = adductor pollicis, PI = palmar Interossei, DI = dorsal interossei, L3 = 3rd lumbrical, L4 = 4th lumbrical]

SI-1 ShaoZe

Lesser Marsh

- Dorsal Digital Nerve (Ulnar Nerve)
- 少澤，小指之端也，為井金
- Spiritual Pivot: On the highest point of the small intestine, Jing-Well Metal element.
- 少澤者，金也。一名小吉，在手小指之端，去爪甲下一分陷者中，手太陽脈之所出也，為井。刺入一分，留二呼，灸一壯。
- Systematic Classic: SI-1, Metal element. Also named Small Luck, on the highest point of the small hand digit, toward the angle of the nail like leek leaf, where the Hand TaiYang channel exits, Jing-Well point. Puncture 1 fen, retain 2 exhalation, moxa 1 cone.

SI-2 QianGu

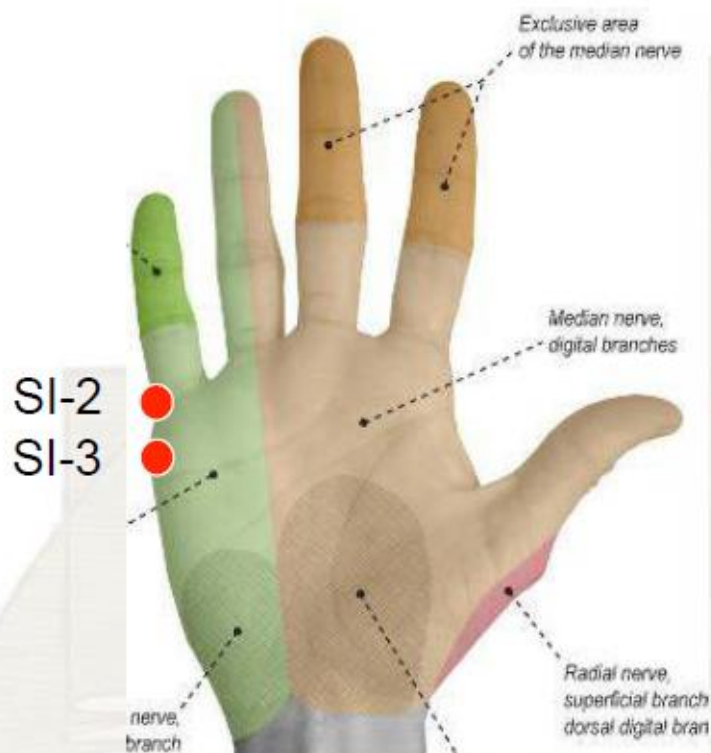
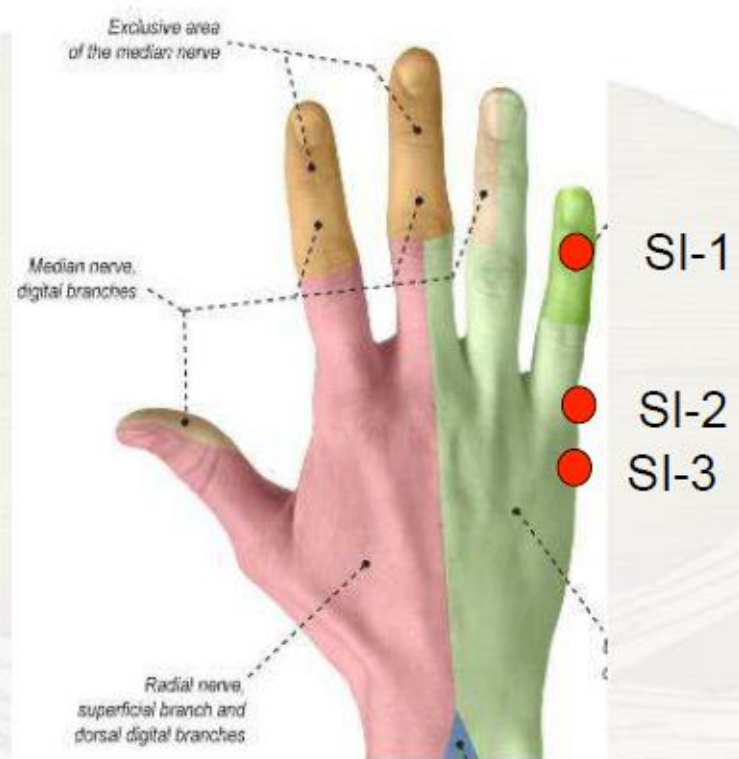
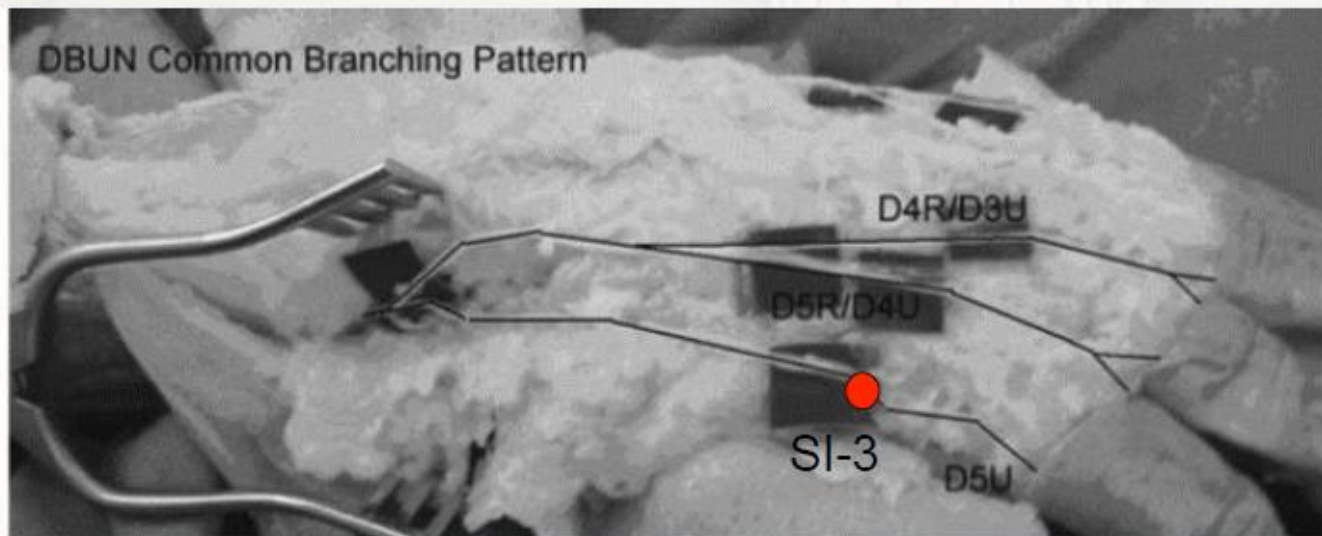
Front Valley

- Junction of Dorsal Digital Nerve & Proper Palmar Digital Nerve (Ulna Nerve)
- 前谷者，水也。在手小指外側，本節前陷者中，手太陽脈之所溜也，為榮。刺入一分，留三呼，灸三壯。
- Systematic Classic: SI-2, Water element. On the outer side of the small hand digit, in depression in front of the root node, where Hand TaiYang channel flows, Ying-Spring point. Puncture 1 fen, retain 3 exhalation, moxa 3 cones.
- Comment: Root node refers to the MCP joint.

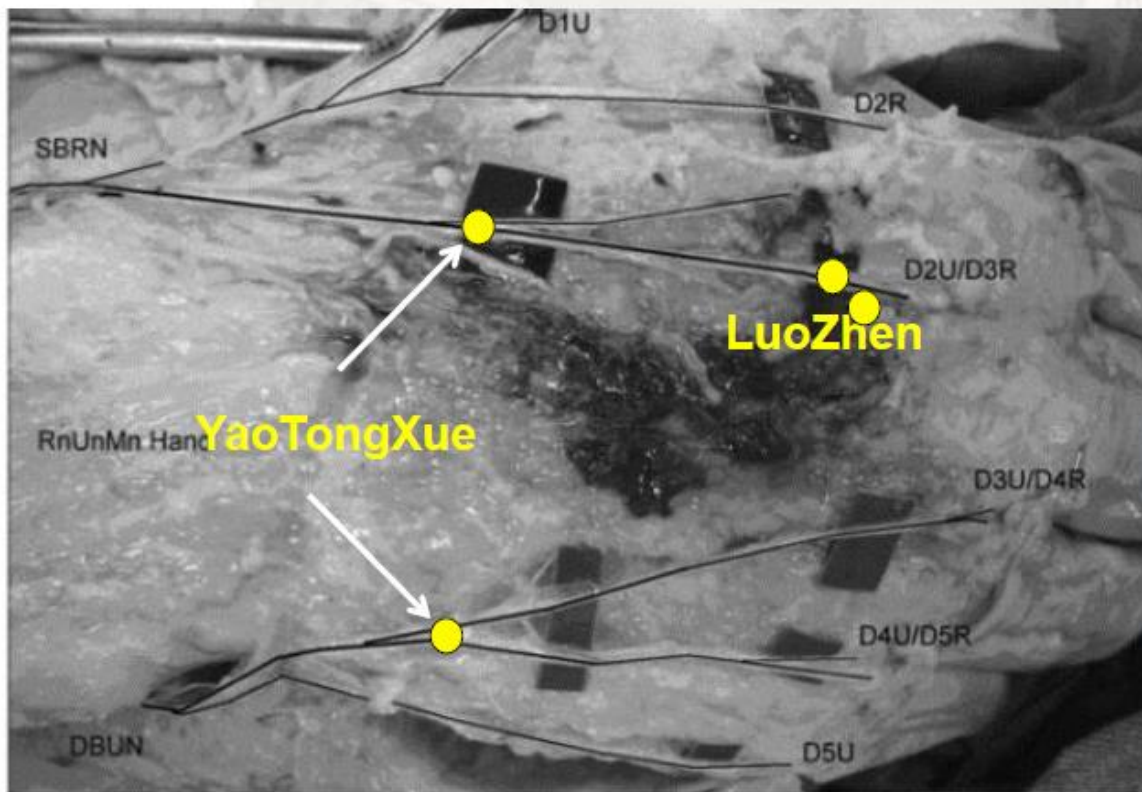
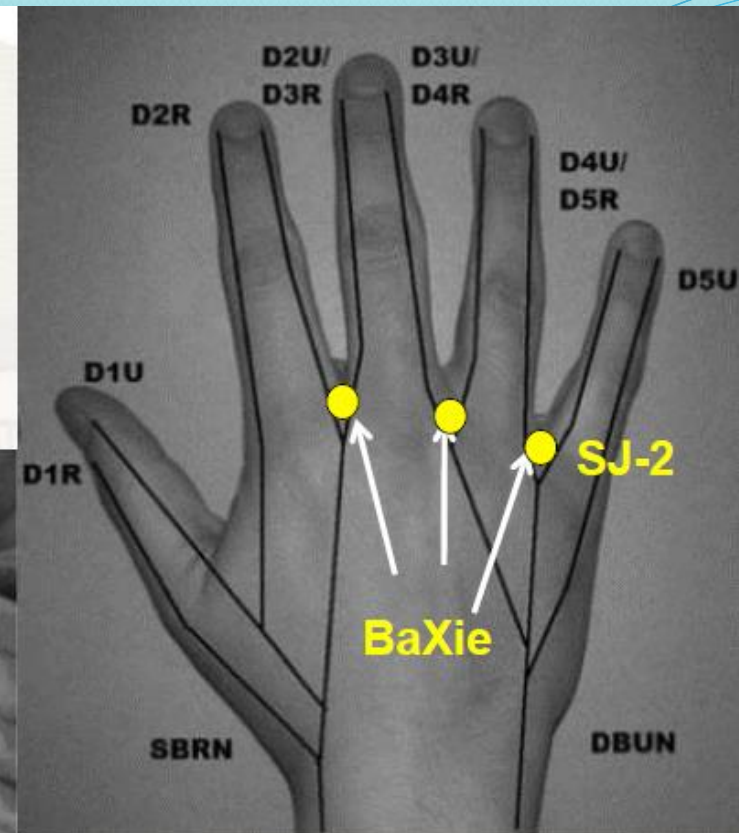
SI-3 HouXi

Back Ravine

- Junction of Digital Cutaneous Branch (Superficial) and Dorsal Cutaneous Branch (Ulnar Nerve)
- 後溪者，木也。在手小指外側，本節後陷者中，手太陽脈之所注也，為俞。刺入二分，留二呼，灸一壯。
- Systematic Classic: SI-3, Wood element. On outer side of the small hand digit, in depression behind the root node, where Hand TaiYang channel pours, Shu-Stream point. Puncture 2 fen, retain 2 breath, moxa 1 cone.



Adapted from David Mok et al (2006) The Cutaneous Innervation of the Dorsal Hand: Detailed Anatomy With Clinical Implications. The Journal of Hand Surgery / Vol. 31A No. 4 April



Adapted from David Mok et al (2006) The Cutaneous Innervation of the Dorsal Hand: Detailed Anatomy With Clinical Implications. The Journal of Hand Surgery / Vol. 31A No. 4 April

SJ-1 GuanChong 關衝

Passage Hub

- Junction of Dorsal Digital Nerve (Ulna Nerve), Dorsal Digital Nerve (SBRN) & Palmar Digital Nerve (Median)
- 關衝者，手小指次指之端也，為井金
- Spiritual Pivot: SJ-1, on the highest point of the digit next to to the small digit, Jing-Well Metal point.

- 關衝者，金也。在手小指次指之端，去爪甲角如韭葉，手少陽脈之所出也，為井。刺入一分，留三呼，灸三壯。
- Systematic Classic: SJ-1, Metal element.
- On the highest point of the digit of the hand next to the small digit, toward the angle of the nail like leek leaf, where Hand ShaoYang channel exits, Jing-Well point. Puncture 1 fen, retain 3 exhalation, moxa 3 cones.

SJ-2 YeMen 腋門

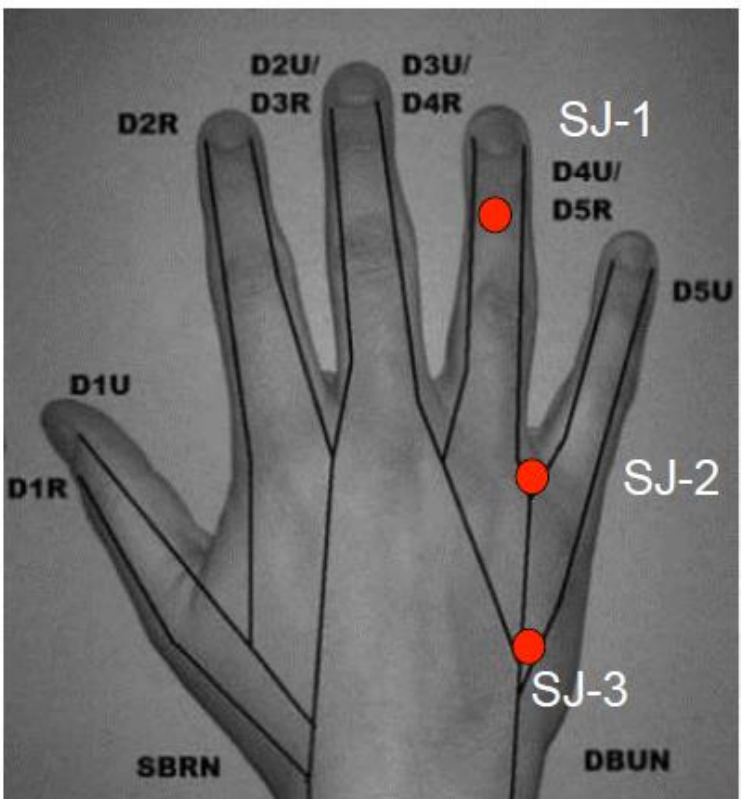
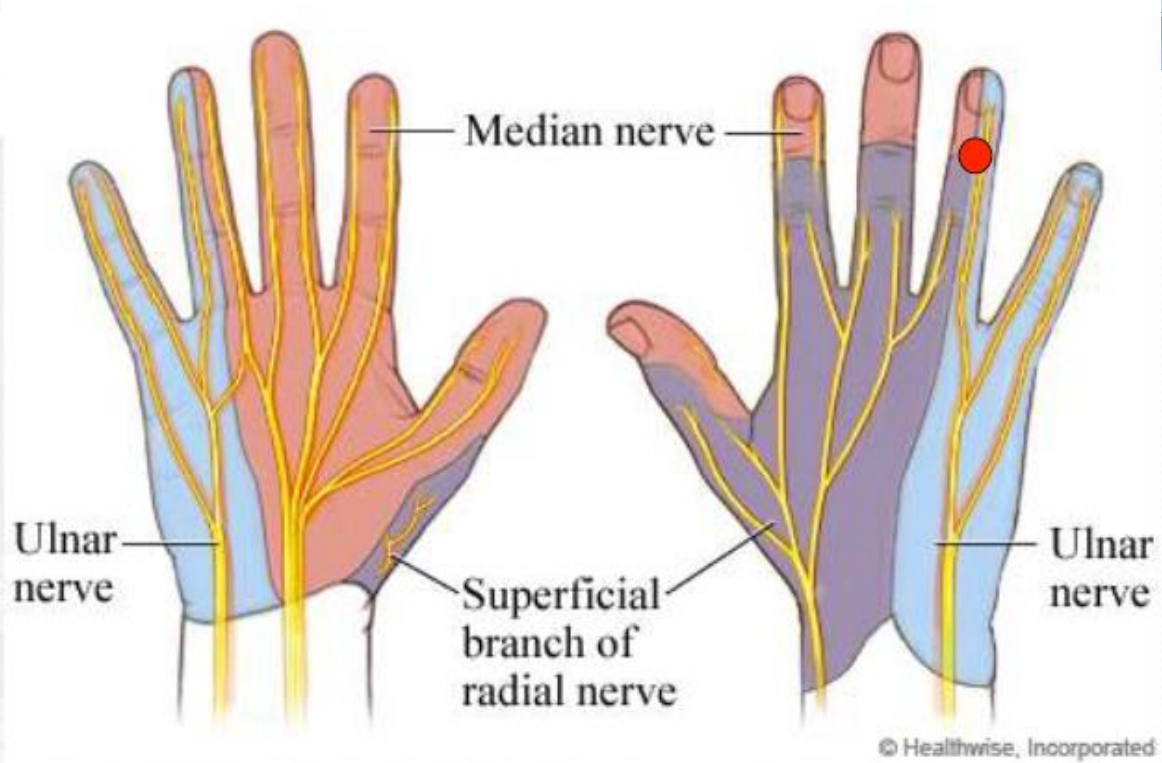
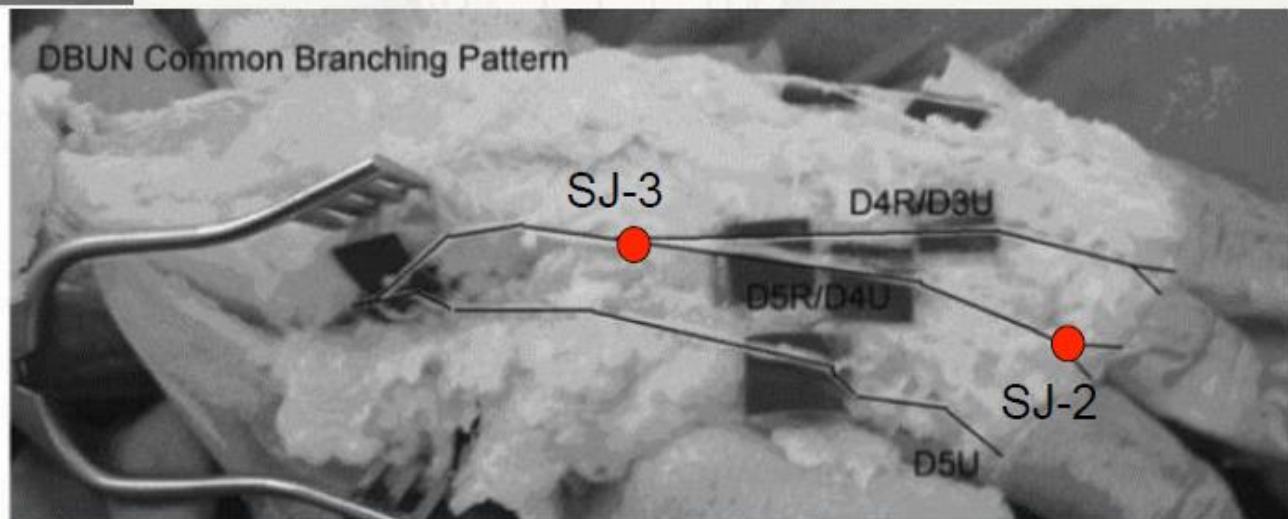
Humor Gate

- Common Dorsal Digital Branch of Ulnar Nerve
- 腋門者，水也。在小指次指間陷者中，手少陽脈之所溜也，為榮。刺入三分，灸三壯。
- Systematic Classic: SJ-2, Water element. In depression between the small digit and the next digit, where Hand ShaoYang channel flows, Ying-Spring point. Puncture 3 fen, moxa 3 cones.

SJ-3 ZhongZhu

Central Islet

- Dorsal Cutaneous Branch of Ulnar Nerve
- 中渚者，木也。在手小指次指本節後陷者中，手少陽脈之所注也，為俞。刺入入二分，留三呼，
- 灸三壯。
- Systematic Classic: SJ-3, Wood element. In depression behind the root node of the small digit and next digit, where Hand ShaoYang channel pours, Shu-Stream point. Puncture 2 fen, retain 3 exhalation, moxa 3 cones



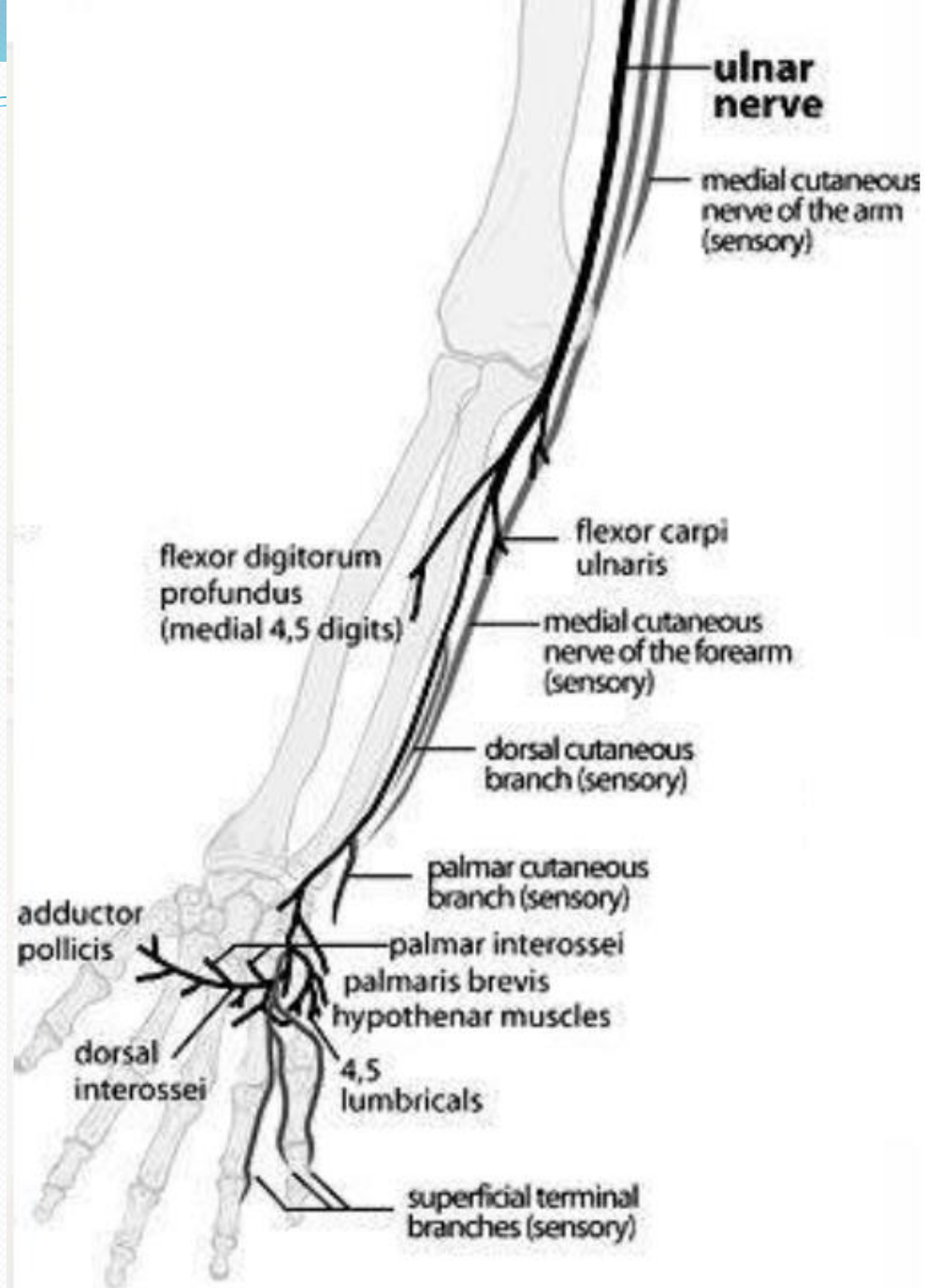
Adapted from David Mok et al (2006) The Cutaneous Innervation of the Dorsal Hand: Detailed Anatomy With Clinical Implications. The Journal of Hand Surgery / Vol. 31A No. 4 April

HT-4 LingDao

Spirit Pathway

- Ulnar Nerve
- 靈道者，金也。在掌後一寸五分，或曰一寸，手少陰脈之所行也，為經。刺入三分，灸三壯。
- Systematic Classic: HT-4, Metal element. 1.5 cun behind the palm, or can be said 1 cun, where Hand ShaoYin channel courses, Jing-River point. Puncture 3 fen, moxa 3 cones.

- **Comment:** In the distal wrist region, the
- Ulnar Nerve divides into the palmar cutaneous branch (part of Nerve of Henle), Dorsal Cutaneous Nerve, Superficial Sensory and deep motor branches. The superficial Ulnar nerve provides innervation of the 4th web-space and ulnar side of the palm. The Deep Ulnar nerve is a motor nerve that innervates Hypothenar muscles, 3rd & 4th Lumbricals and Adductor Pollicis. The insertion site is radial to the Flexor Carpi Ulnaris tendon, ulnar to the Ulnar artery. Pointer-plus stimulation will cause a tingling sensation on the volar ulnar surface of the hand for shallow insertion, activation of the Hypothenar muscles and Adductor Pollicis for deeper insertion.

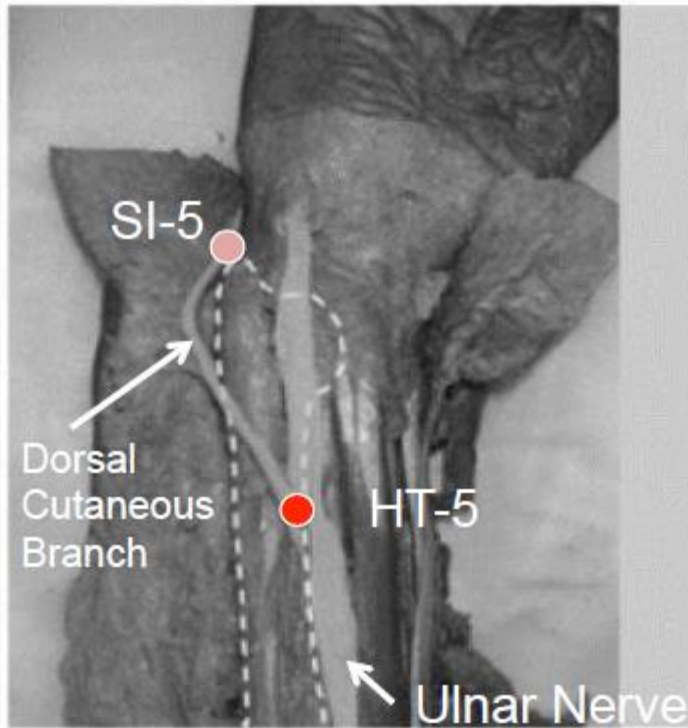
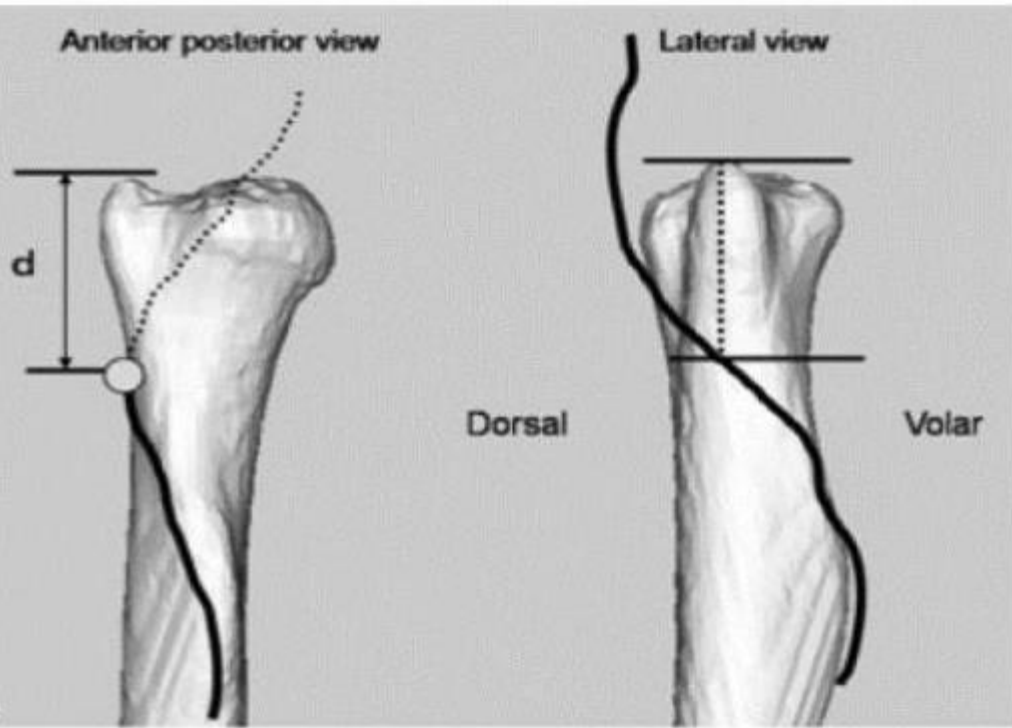


HT-5 TongLi

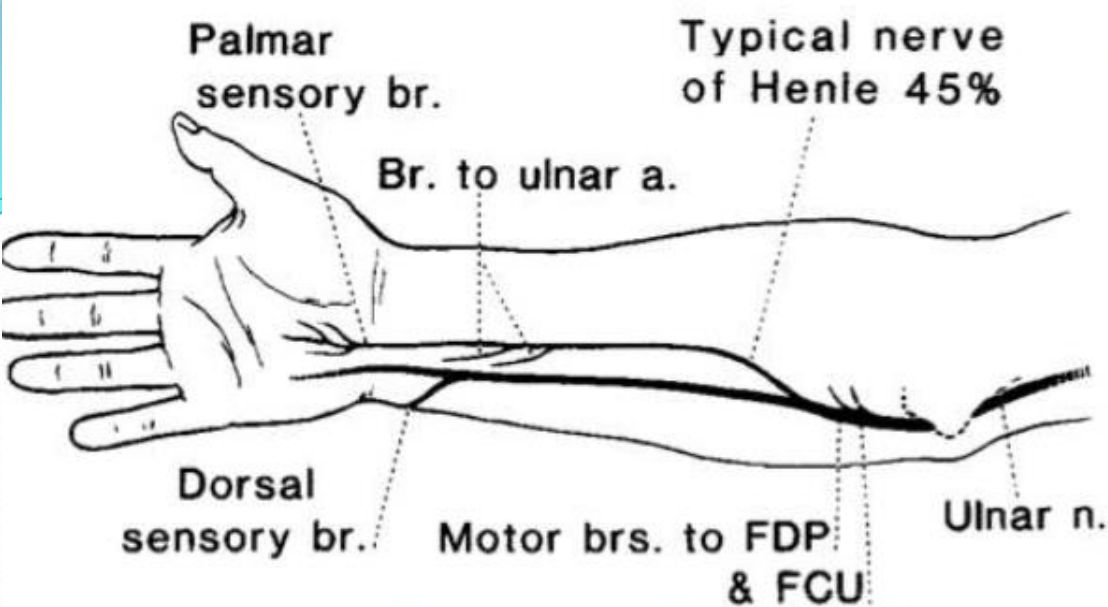
Connecting Li

- Dorsal Cutaneous Branch of Ulnar Nerve
- 通裡，手少陰經，在腕後一寸，別走太陽，刺入三寸，灸三壯。
- Systematic Classic: HT-5, Hand ShaoYin channel, 1 cun behind the wrist, separating to TaiYang, puncture 3 cun moxa 3 cone.

- **Comment:** The Dorsal Cutaneous Branch of Ulnar Nerve provide sensory innervation to the dorsal ulnar 4th and 5th finger. It originates on the medial side of the Ulnar Nerve, on average 3.4 cm proximal to the Ulna styloid process (Goto et al, Hand Surgery Vol 15, No.3 (2010) 165-168. The insertion site is between the tendon of the Flexor Carpi Ulnaris and the Ulna bone, approximately 3-4 cm proximal the transverse wrist crease, needle sub-cutaneously towards the palm.



Adapted from Akira Goto et al. (2010) The Dorsal Cutaneous Branch of the Ulnar Nerve: An Anatomical Study. Hand Surgery, Vol. 15, No. 3: 165-168



HT-6

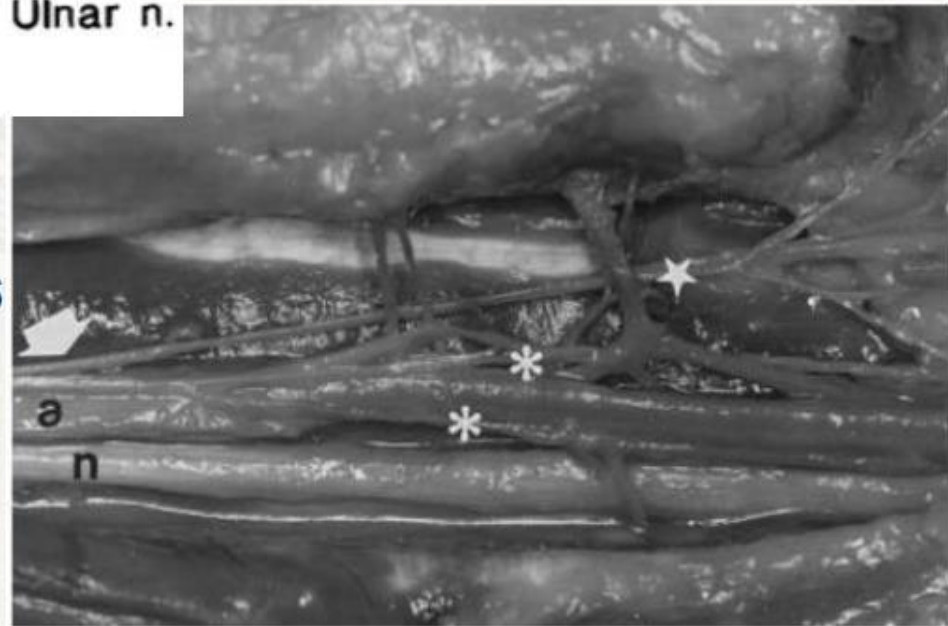


Figure 1. Division of the palmar cutaneous branch of ulnar nerve (white arrow) in a cutaneous branch to the hypothenar (★) and 2 branches to the ulnar artery (*) just proximal to the distal ulnar tunnel (left upper extremity). a, Ulnar artery; n, ulnar nerve.

SJ McCabe et al (1990). The Nerve of Henle. McCabe SJ *J Hand Surg Am.* Sep;15(5):784-8)B.

Balogh et al (1999). The Nerve of Henle: An anatomical & immunohistochemical study. *J Hand Surg*;24A:1103-1108

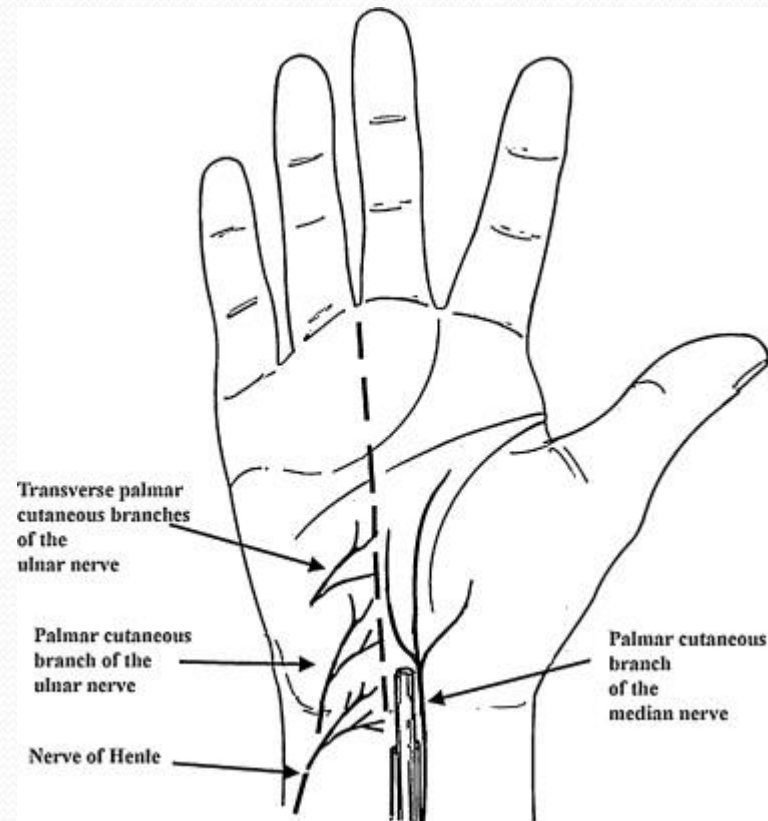
HT-6 ShouShaoYin

Hand ShaoYin

- Palmar Branch of Ulnar Nerve; Nerve of Henle (Ulnar Nerve)
- 手少陰，在掌後脈中，去腕五分，刺入三寸，灸三壯。
- Systematic Classic: HT-6, in the pulse behind the palm, 5 fen towards the wrist, puncture 3 cun moxa 3 cones.

- Comment: The Exchange bone likely refers to the pisiform bone.
- In the Systematic Classic HT-6 is know as ShaoYin. Its modern name is Yin Xi (Yin Cleft). The reference to 3 cun needling is likely meant to be 3 fen needling.
- The Palmar Branch of Ulnar Nerve innervates the hypothenar eminence and a small portion of the distal forearm.
- It originates on average 4.6 cm proximal to the pisiform, ranging from 3 to 7.8 cm (Surgical Anatomy of the Hand and Upper Extremity (James R. Doyle, Michael J. Botte p. 206)).

- The Nerve of Henle originate on average 16cm proximal to the pisiform, travels alongside the Ulnar artery becoming cutaneous on average 6 cm proximal to the ulnar styloid and innervate the skin of the distal ulnar forearm (The Nerve of Henle. McCabe SJ J Hand Surg Am. 1990 Sep;15(5):784-8).



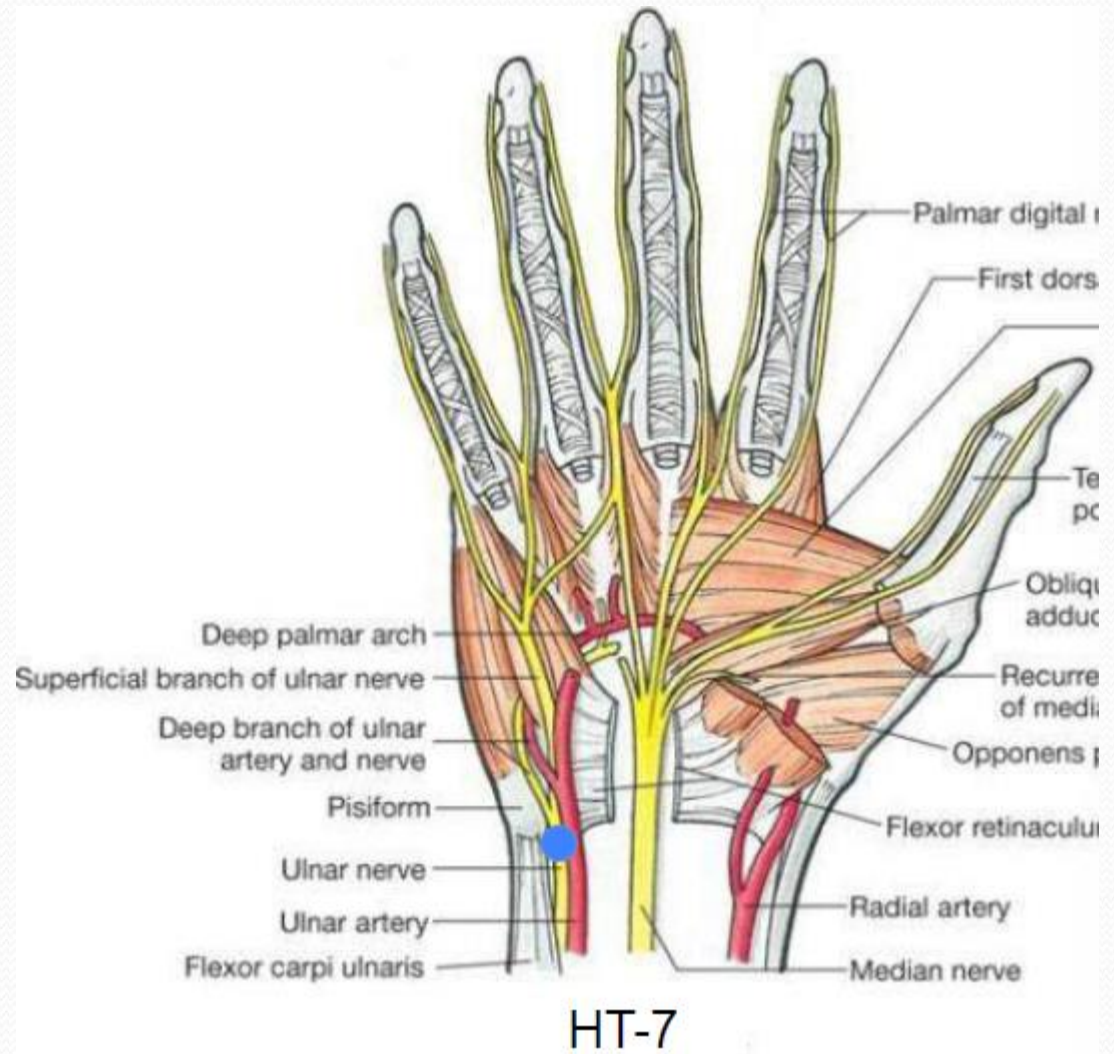
- This nerve provides sensory innervation to forearm or palm as well as sympathetic innervation to the ulnar artery. HT-6 is one of the main points controlling sweating, it is the author's opinion that this is best explained by the autonomic function of the Nerve of Henle.
- McCabe's study showed that in all 40 specimens they studied, the nerve of Henle provided sensory innervation of the distal forearm, and that the palmar cutaneous branch of the ulnar nerve was absent in all specimens. They therefore propose that the palmar cutaneous branch of the ulnar nerve is actually the terminal end of the Nerve of Henle.

HT-7 ShenMen

Spirit Gate

- Superficial Branch of Ulnar Nerve (Digital Branch)
- 神門者，土也。一名兌衝，一名中都，在掌後兌骨之端陷者中，手少陰脈之所注也，為俞。刺入三分，留七呼，灸三壯。
- Systematic Classic: HT-7, Earth element. Also named Exchange Penetrating, also named Central Capital, in depression at the peak of the exchange bone behind the palm, where the Hand ShaoYin channel pours, Shu-Stream point. Puncture 3 fen, retain 7 exhalation, moxa 3 cones.

- Comment: The Superficial Branch also known as the Digital Branch of the Ulnar Nerve innervates the ulnar 1.5 fingers of the palm.



HT-9 ShaoChong

Lesser Surge

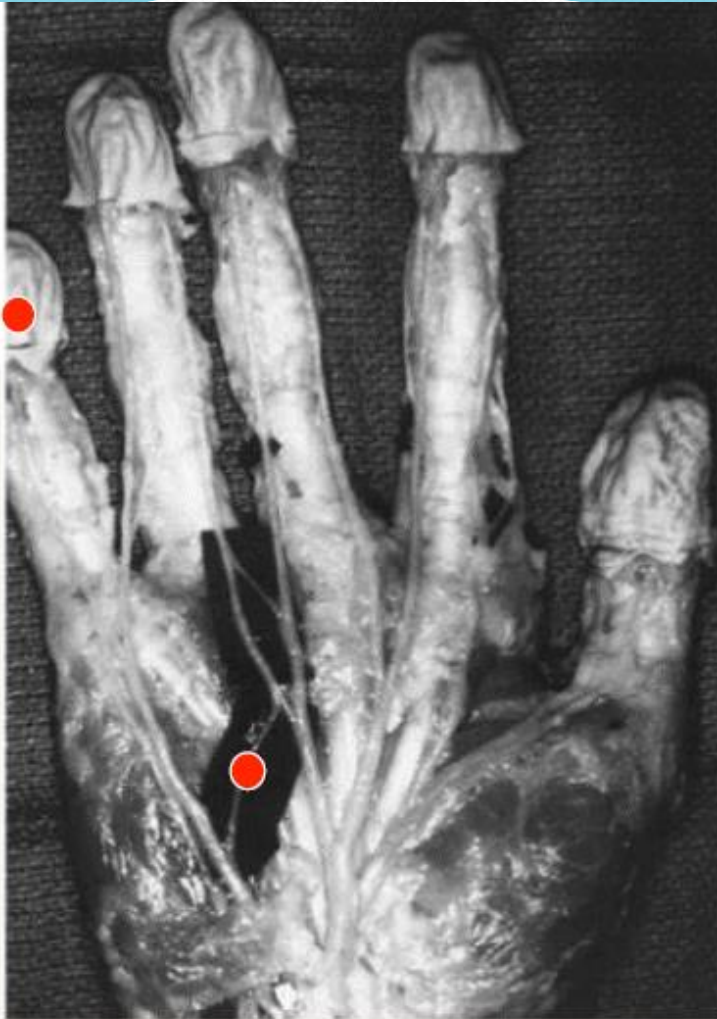
- Palmar Digital Nerve (Ulnar Nerve)
- 少衝者，木也。一名經始，在手小指內廉之端，去爪甲角如韭葉，手少陰脈之所出也，為井。刺入一分，留一呼，灸一壯。
- Systematic Classic: HT-9, Wood element. Also named Channel Beginning, on the highest point of the inner side of the small hand digit, toward the angle of the nail like leek leaf, where hand ShaoYin channel exits, Jing-Well point. Puncture 1 fen, retain 1 breath, moxa 1 cone.

- 
- **Comment:** Chapter 2 of the Spiritual Pivot describes the location of the transport points for 11 channels, omitting the HT channel. Therefore there is a lack of information on the location of the distal points of the HT channel prior to the Systematic Classic.

HT-8 ShaoFu

Lesser Mansion

- Common Palmar Digital Nerve to 4th web-space (Ulnar Nerve); Communicating Branch between Superficial Branch of the Ulnar Nerve and Common Palmar Digital Nerve of 3rd Webspace (Median Nerve)
- 少府者，火也。在小指本節後陷者中，直勞宮，手少陰脈之所留也，為榮。刺入三分。
- Systematic Classic: HT-8, Fire element. In depression behind the root of small finger, in line with PC-8, where Hand ShaoYin channel remains, Ying-Spring point, puncture 3 fen.

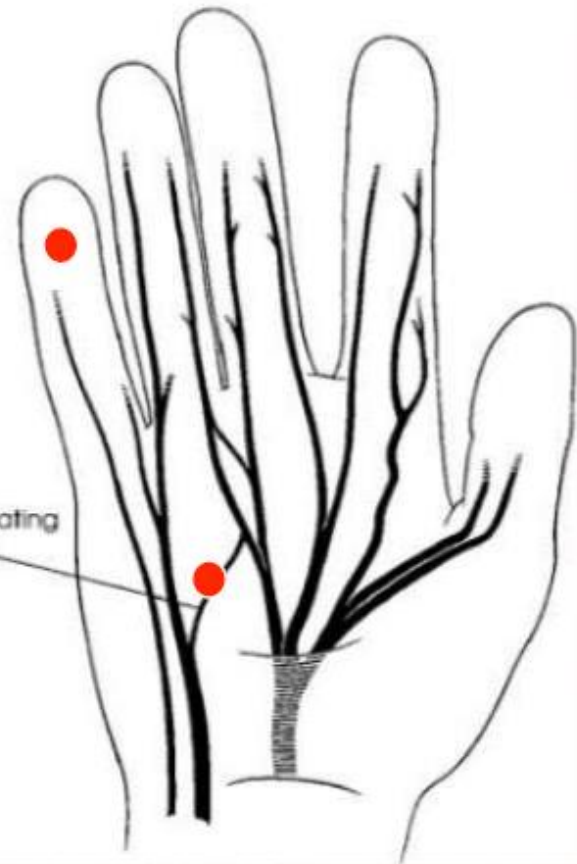


HT-9

Communicating
branch

HT-8

B



Adapted from Heidi Bas et al (1999) Anatomic Variation Sensory of Innervation of Hand & Digits. J Hand Surg 1999;24A:1171–1184.

Claw Hand Deformities



Median nerve

Median Nerve

- Arise from lateral root of lateral cord (C_{5,6,7}) and medial root and medial cord (C₈,T₁) of brachial plexus.
- Passes down the midline of the arm in close association with the brachial artery.
- Passes in front of elbow joint (cubital fossa) then down to supply the muscles of the anterior of forearm.
- Then it continue into the hand through carpal tunnel where it supply intrinsic hand muscles and skin of the

- 
- At the cubital fossa the anterior interosseous nerve arises from the median nerve
 - Descend through the forearm and end at the wrist by giving the articular branch to the radiocarpal and intercarpal joint.
 - It supplies flexor pollicis longus, lateral half flexor digitorum profundus and pronator quadratus

Median Nerve

- Motor – all anterior (flexor) compartment of forearm (except flexor carpi ulnaris and ulnar half of the flexor digitorum profundus), pronator teres & quadratus, intrinsic hand muscles (LOAF; 1,2 lumbricals, OP, FPB, APB)
- Sensory – skin of the palmar aspect of the thumb and the lateral 2 ½ fingers and the distal ends of the same fingers and skin of distal phalanx on same finger

Median nerve dermatomes



Cont...

- Median nerve can be injured by deep cut with resultant lost of flexion at all IP joint except the distal ones in the ring and little finger.
- MCP still can be flexed at this fingers (lumbricals)
- In the hand thumb is extend and adducted, lost of ability to abduct and oppose.
- Compression at the carpal tunnel give rise the carpal tunnel syndrome (CTS)

MEDIAN NERVE

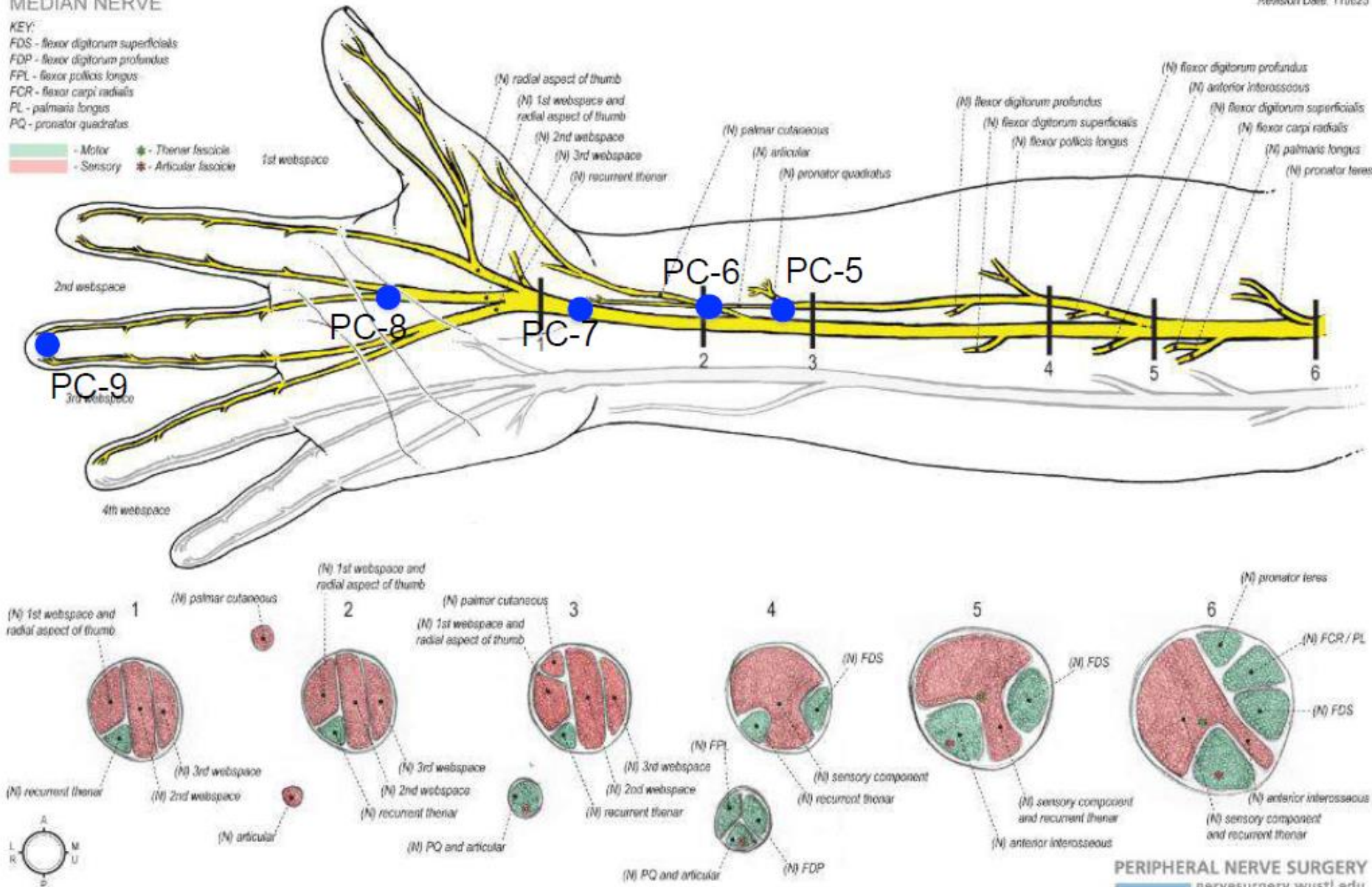
Revision Date: 11/08/25

KEY:

FDS - flexor digitorum superficialis
FDP - flexor digitorum profundus
FPL - flexor pollicis longus
FCR - flexor carpi radialis
PL - palmaris longus
PQ - pronator quadratus

Motor
Sensory

Thener fascicle
Articular fascicle



PC-5 Jian Shi 間使

Intermediary Courier

- Median Nerve; Anterior Interosseous Nerve
- 間使之道，兩筋之間，三寸之中也，有過則至，無過則止，為經
- Spiritual Pivot: The path of PC-5, between two sinews, in the middle of 3 cun, with passage thus reach, without passage thus stop, Jing-River point.
- 間使者，金也。在掌後三寸，兩筋間陷者中，手心主脈之所行也，為經。刺入六分，留七呼，灸三壯。

PC-6 Nei Guan 內關

Inner Pass

- Palmar Cutaneous Branch of Median Nerve
- 內關，手手心心主絡，在掌後去腕二二寸寸，別走走少陽，刺入入二二分，灸五壯。Systematic Classic: PC-6,
- Systematic Classic: Luo of the Hand Heart Governor, 2 cun behind the palm, separating into ShaoYang, puncture 2 fen, moxa 5 cones.

- 
- **Comment:** The PC channel terminates on the tip of the middle finger, but branches at PC-6 to enter the SanJiao Channel (4th finger). This distribution is consistent with the Median Nerve, which innervates the 1st, 2nd and 3rd web-spaces. The 4th web-space is innervated by the Ulnar nerve.

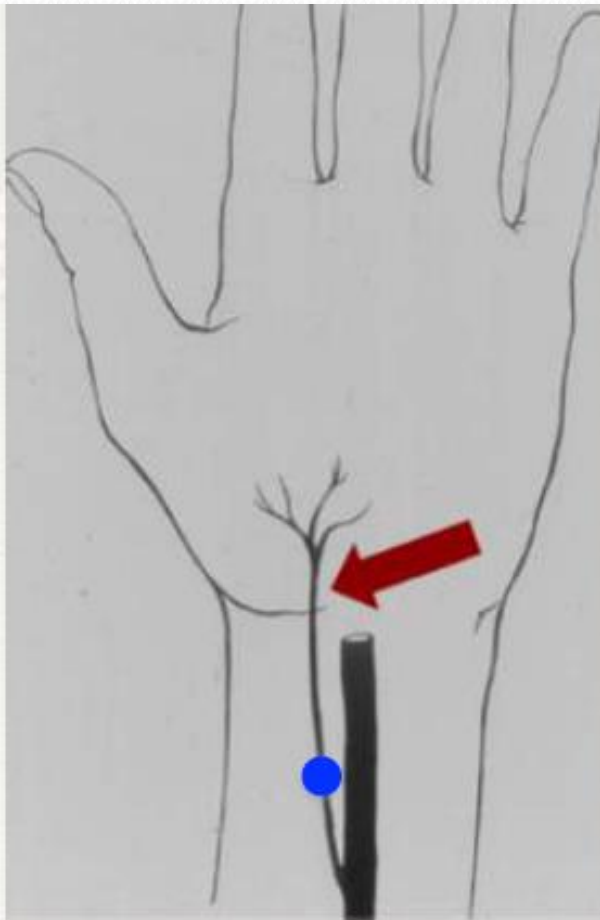


Figure 4 The palmar cutaneous branch of the median nerve is difficult to see in the fascia overlying the tubercle of scaphoid but is a clearly identifiable structure arising from the radial side of the main median nerve about 2 inches above the wrist.

David P. Green. 2011. Exposure and Soft-Tissue Dissection. Oper Tech Sports Med 19:212-216

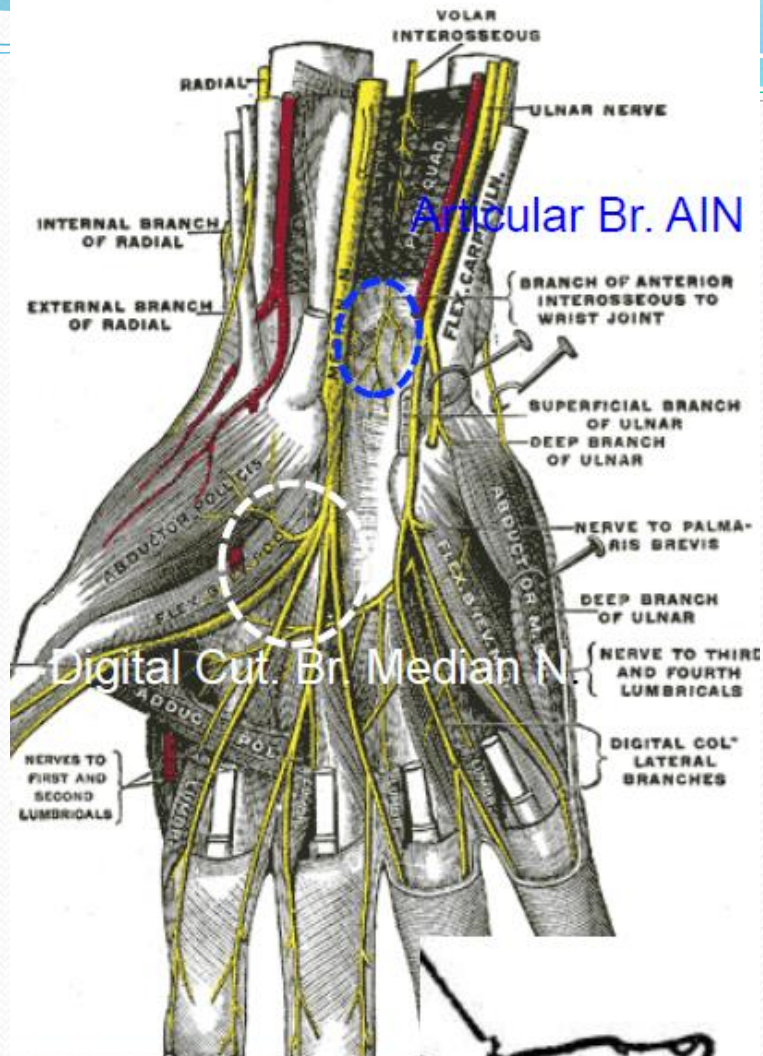
PC-7 DaLing大陵

Great Mound

- Digital Cutaneous Branch of Median Nerve (superficial)
- Articular Branch of Anterior Interosseous Nerve (Deep)
- 大陵掌後兩骨之間方下者也，為俞
- Spiritual Pivot: PC-7 just below the space between the two bones behind the palm, Shu-Stream point.

- 大陵者，土也。在掌後兩筋間陷者中，手心主脈之所注也，為俞。刺入六分，留七呼，灸三壯。
- Systematic Classic: PC-7, Earth element. In depression between two tendons behind the palm, where Hand Heart Governor Channel pours, Shu-Stream point. Puncture 6 fen, retain 7 exhalation, moxa 3 cones.

- Comment: The two bones described for the location of PC-7 in the Spiritual Pivot is likely to be Scaphoid and Pisiform bones, as from a surface anatomy perspective they would have been the most palpable bones to ancient acupuncturist.
- This location is better suited for the Articular Branch of Anterior Interosseous Nerve. According to the Spiritual Pivot PC-7 (“just below”) is located on the palm.
- The Systematic Classic location between two sinews (Flexor Carpi Radialis and Palmaris Longus) is more proximally located and make for a better insertion site for the Digital Cutaneous Branch of the Median Nerve.



PC-8 LaoGong 勞宮

Palace of Toil

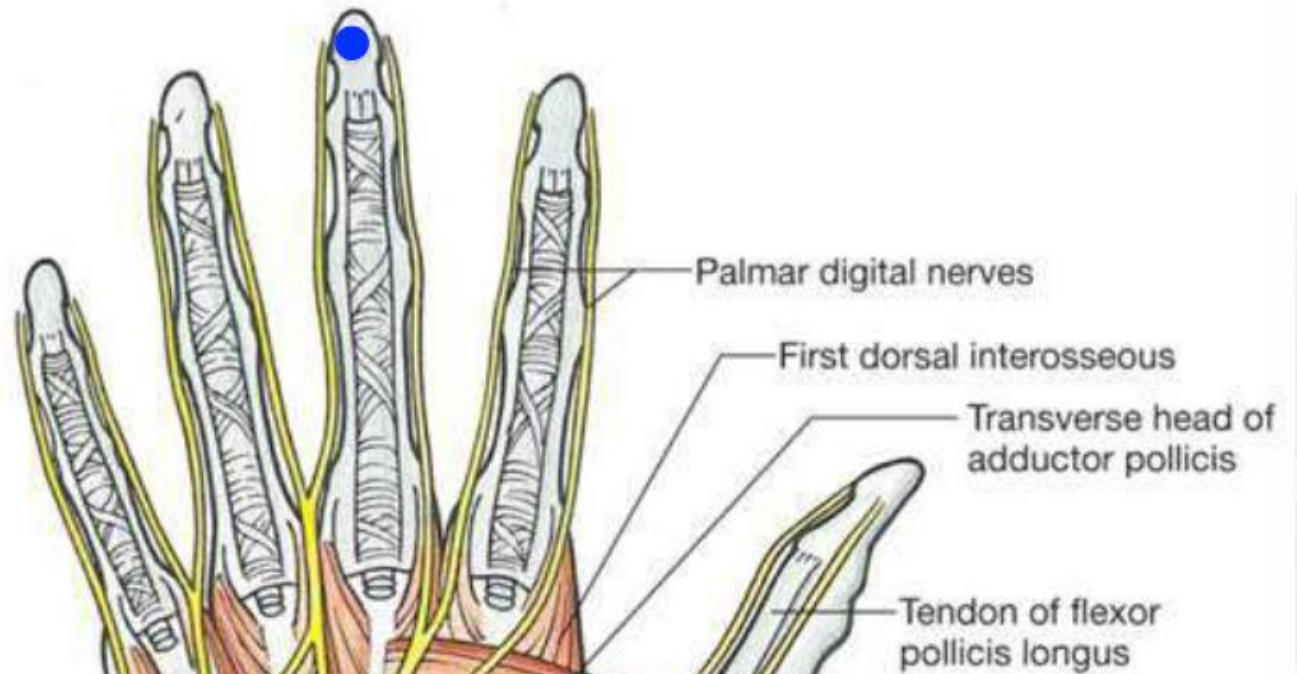
- Median Nerve 2nd Web-space Division (Common Palmar Digital Nerve)
- 勞宮者，火也。一名五里，在掌中央動脈中，手心主脈之所留也，為榮。刺入三分，留六呼，灸三壯。
- Systematic Classic: PC-8 Fire element. Alternately named Five Mile, in the pulsation in the center of the palm, where Hand Heart Governor channel remains, Ying-Spring point.
- Puncture 3 fen, retain 6 exhalation, moxa 3 cones.
- Comment: The pulsation likely refers to the Superficial Palmar Arch.

PC-9 ZhongChong 中衝

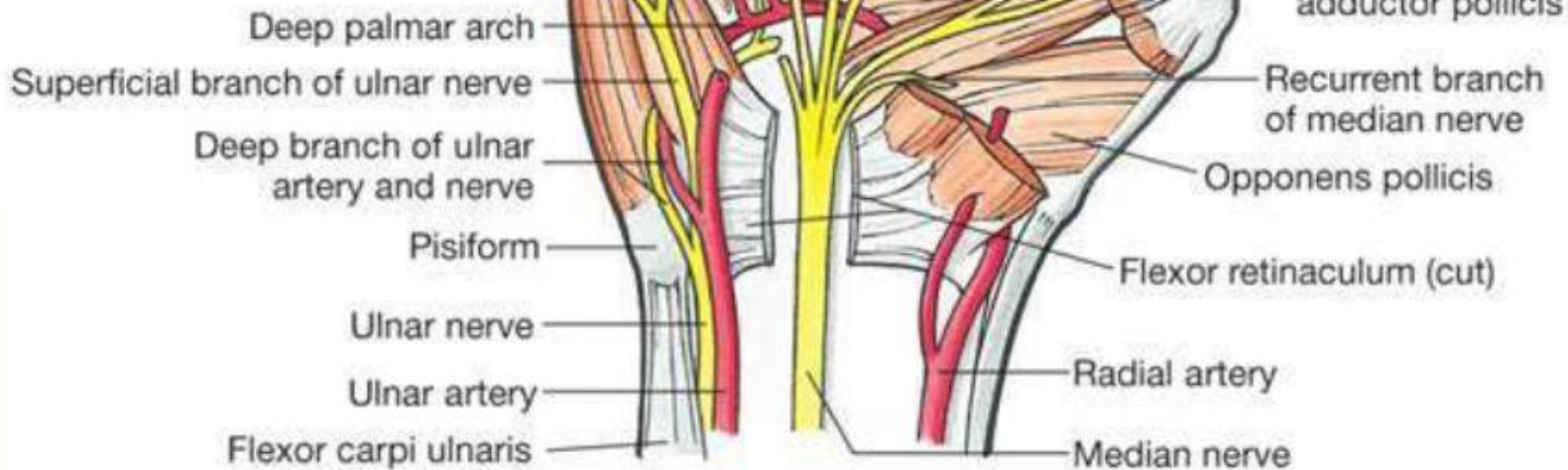
Middle Hub

- Proper Palmar Digital Nerve (Median Nerve)
- 中衝，手中指之端也，為井木
- Spiritual Pivot: PC-9, on the highest point of the middle hand digit, Jing-Well Wood element.
- 中衝者，木也。在手中指之端，去爪甲角如韭葉陷者中，手心主脈之所出，為井。刺入一分，留三呼，灸一壯。
- Systematic Classic: PC-9 Wood element. On the high point of the middle digit of the hand, in depression toward the angle of the nail like leek leaf, where Hand Heart Governing Channel exists, Jing-Well point. Puncture 1 fen, retain 3 exhalation, moxa 1 cone.

PC-9



PC-8



Anterior view

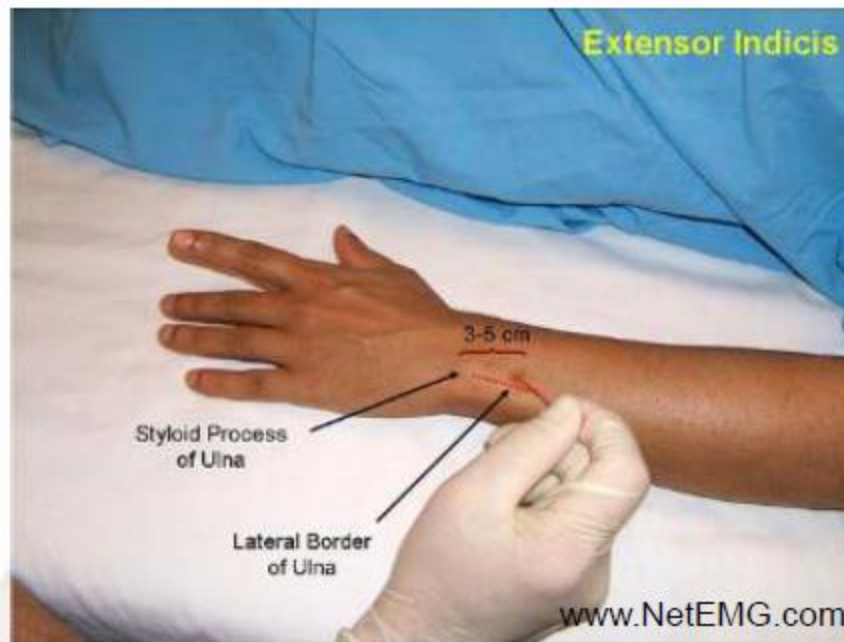
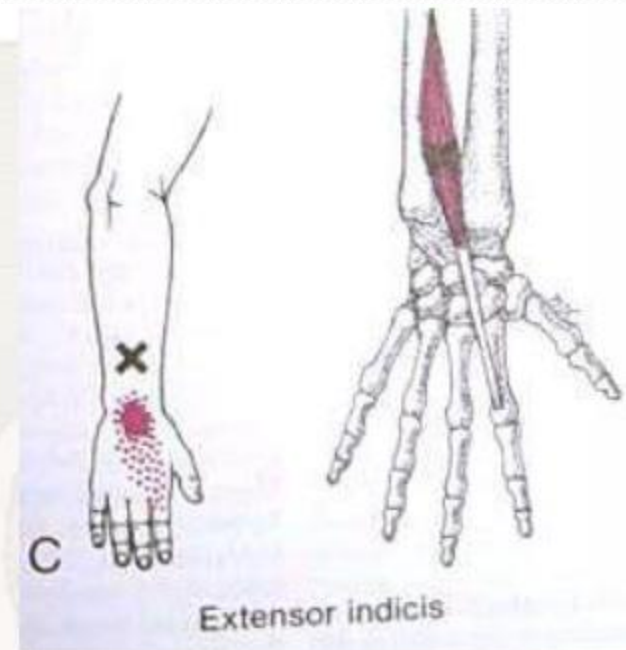
SJ-5 WaiGuan

Outer Pass

- Extensor Indicis
- 外關，手少陽絡，在腕後二寸陷者中，別走心者，刺入三分，留七呼，灸三壯。
- Systematic Classic: SJ-5 Hand ShaoYang channel, in depression 2 cun behind the wrist, separating to the heart, puncture 3 fen, retain 7 exhalations, moxa 3 cones.

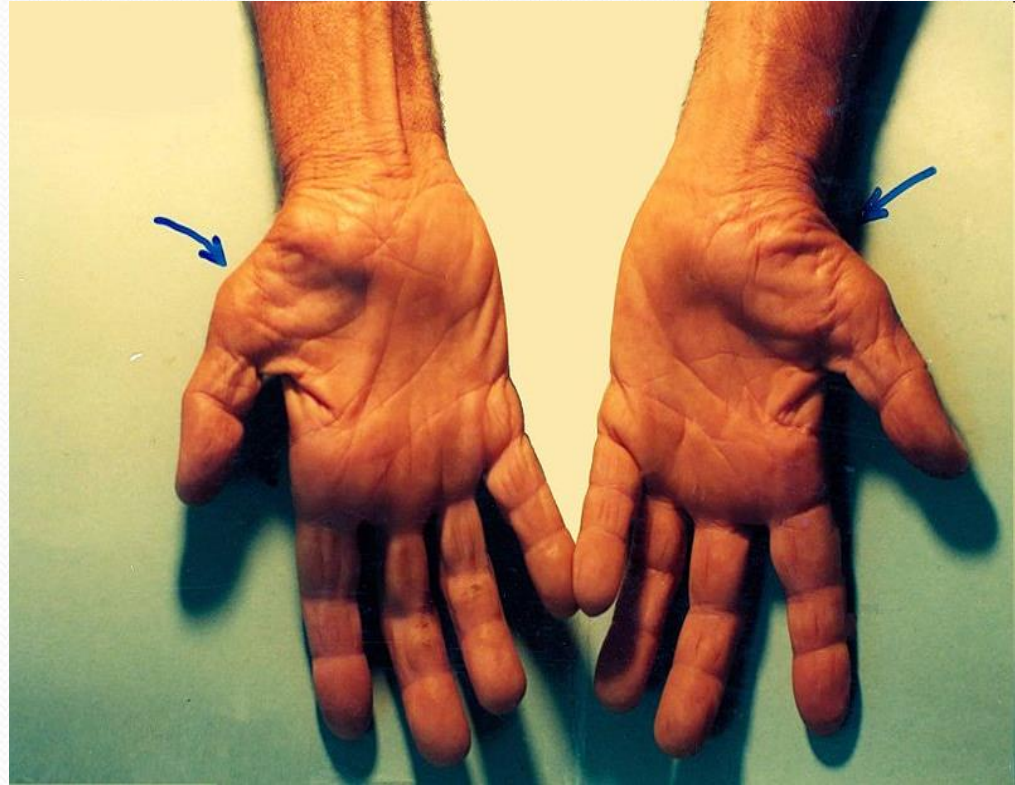
- **Comment:** The primary SJ channel separating at SJ-5, ascends the arm, flows into the chest and uniting with the pericardium (p278 Ellis et al). There is no mention of how the SJ channel branches from SJ-5 (Luo point) to its interior-exterior paired PC channel.
- Typically Luo points connect distally to its corresponding interior-exterior paired channels, but there is no record of this for SJ-5. It is tempting to speculate if needling SJ-5 deeply could approach the Medial Nerve or Anterior Interosseous Nerve (Median Nerve branch) on the flexural side of the forearm.

- 
- Anatomically for this to be achieved, the interosseous membrane between radius and ulna would have to be punctured.
 - We were unable to break the interosseous membrane with an average acupuncture needle, however with electrical stimulation from a Pointer plus device it is often possible to activate the Pronator Quadratus muscle which is innervated by the Anterior Interosseous Nerve (Median) from this location. This would satisfy the requirement of a Luo connection from SJ-5 to the PC channel.



Carpal Tunnel Syndrome

- Compression median nerve at the carpal tunnel
- Patient will experience numbness, tingling, or burning sensation at the thumb, index, middle and radial half of the ring finger.
- If untreated – weakness or atrophy of the thenar muscles.



Brachial Plexus Injury

Brachial Plexus Injury

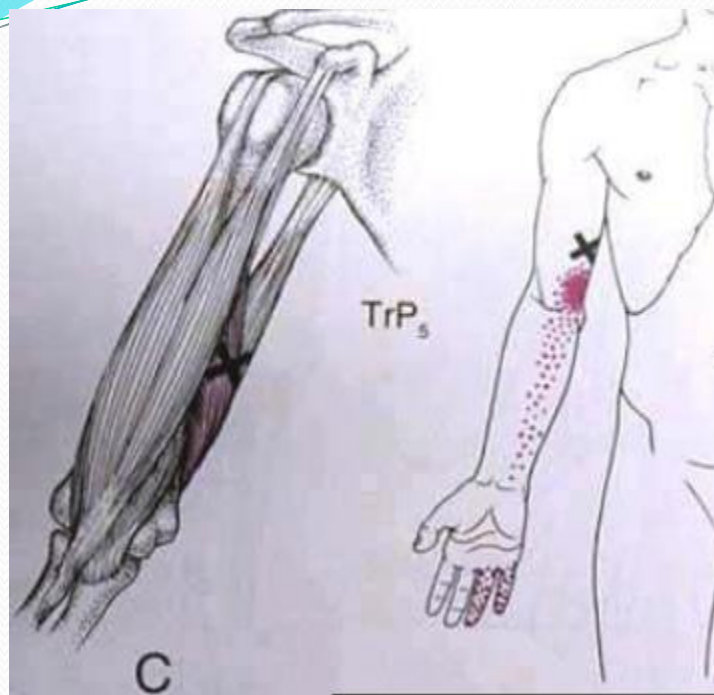
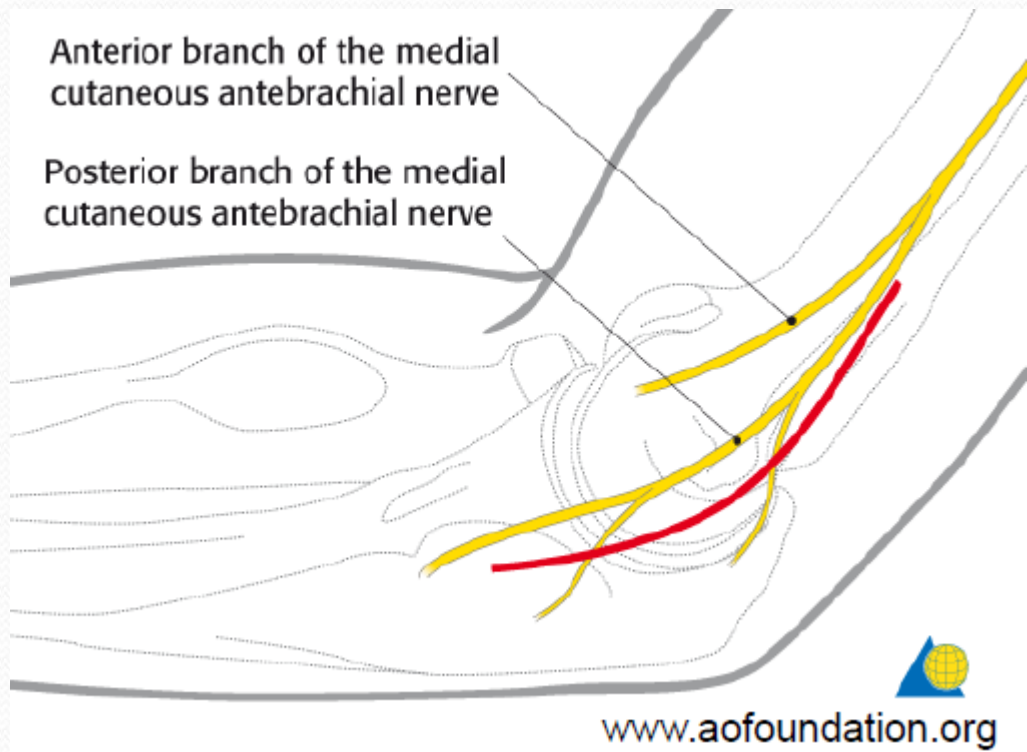
- Obstetric brachial plexus palsy
- Injury to all or portion of a child brachial plexus occurring at that time of the delivery.
- Excessive lateral traction on the head so that the head is pulled away from the shoulder.
- Divide into :
 - Erb's Duchenne Palsy
 - Klumpke's Palsy

HT-2 QingLing

Cyan Spirit

- Medial Antebrachial Cutaneous Nerve; Tricep Medial Head TP (Medial Region)
- 在肘上三寸，伸肘舉臂取之
- Holy Beneveolent Prescriptions from the TaiPing Era:
3 cun above the elbow, stretch the elbow, raise the arm to obtain.

- **Comment:** In the Systematic Classic, the Heart Channel is said to have 8 points. The point that is missing is HT-2 青靈, which made its first appearance in 太平聖惠方 TaiPingShengHuiFang Juan 100 (Holy Beneveolent Prescriptions from the TaiPing Era, Scroll 100), Song Dynasty (992 AD). The Medial Antebrachial Cutaneous Nerve branches into the anterior and posterior (ulnar) branch just distal to HT-2. The MABCN is anterior (lateral) to the Ulnar nerve when the arm is in supinated anatomical position.



EP ErBai Two White 二白

- Median Nerve (Lateral to tendon of Palmaris Longus);
Ulnar Nerve (Medial to tendon of PL) -4 cun above
wrist crease, medial or lateral to tendon of Palmaris
Longus

EP BiZhong Middle Arm 臂中

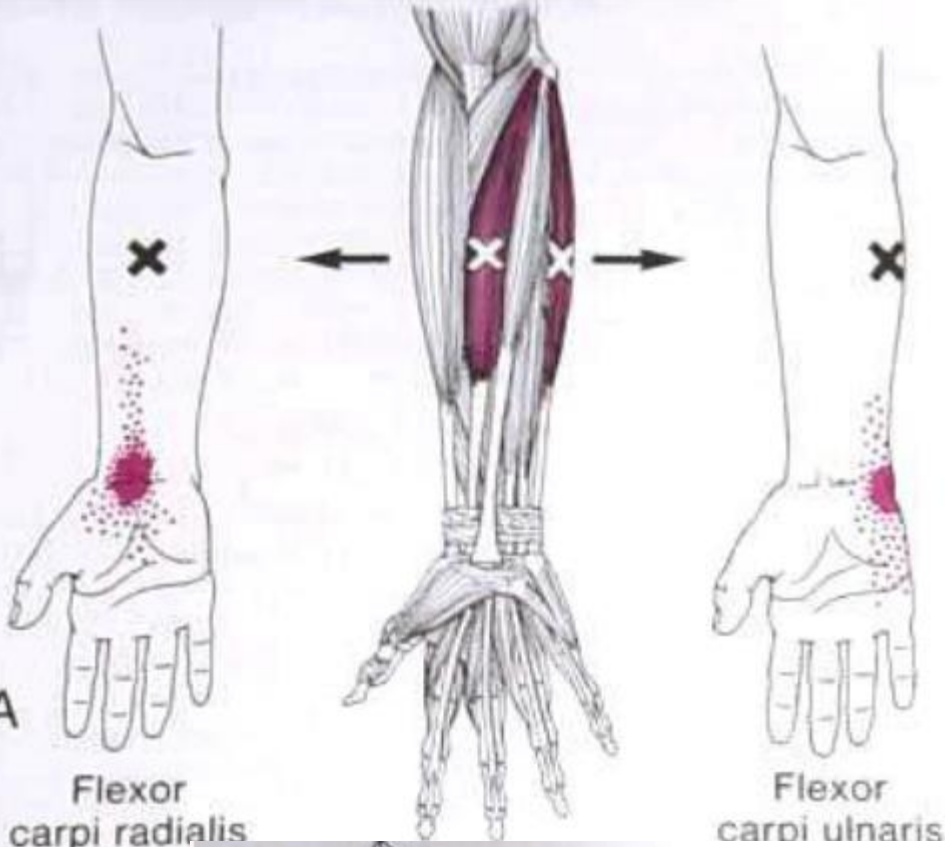
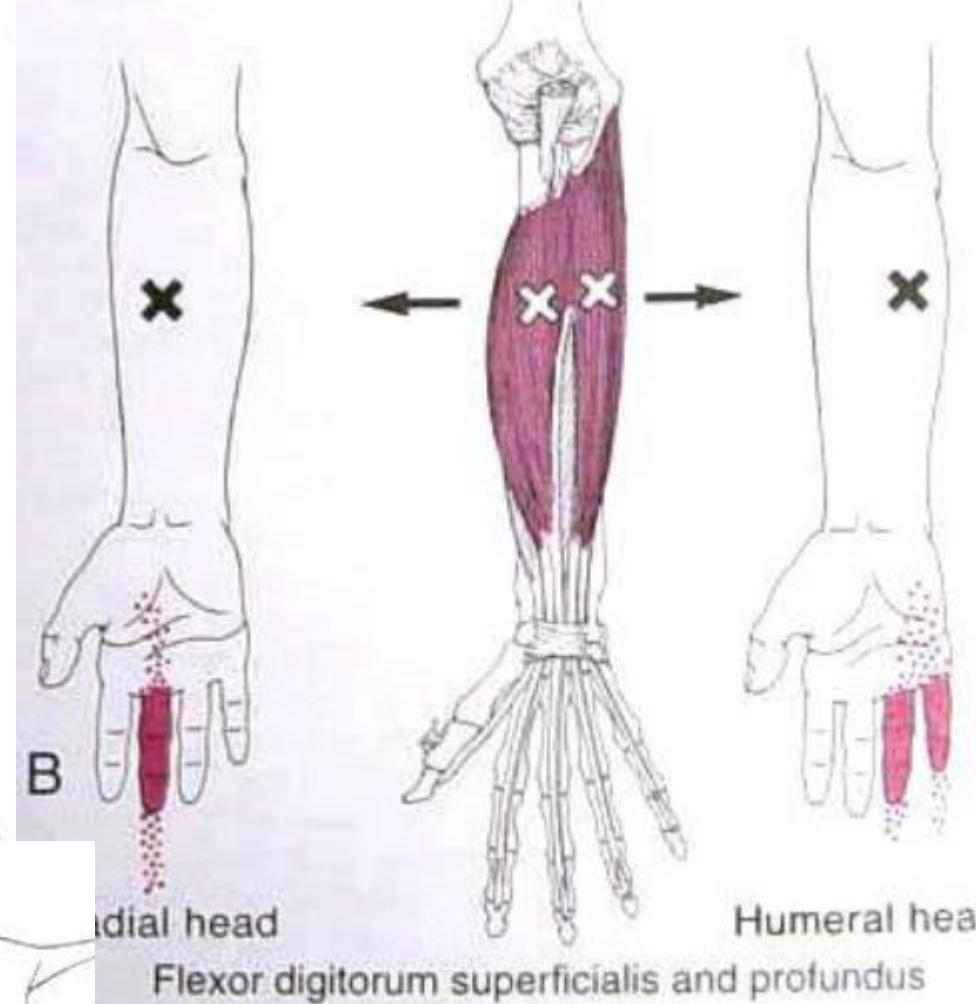
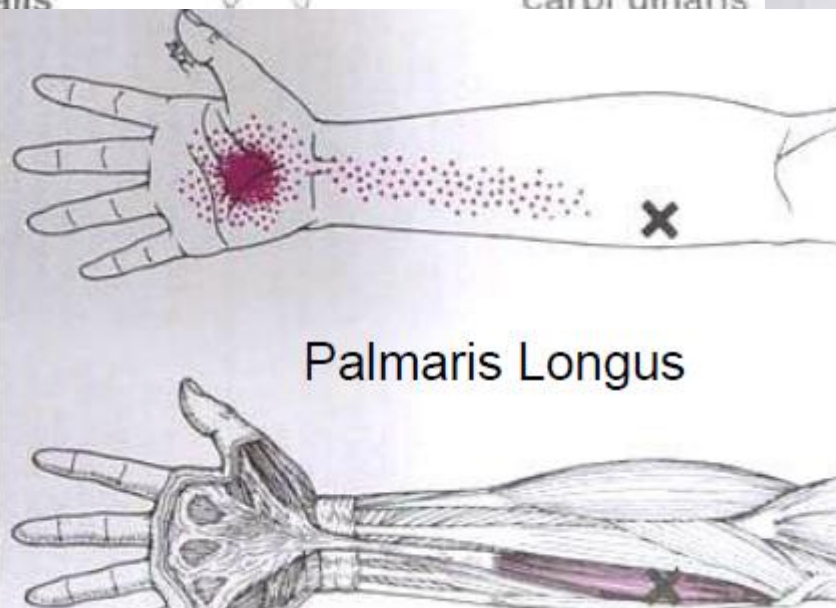
- -6 cun above wrist crease Flexor Digitorum Superficialis; Flexor Digitorum Profundus

XiShang Above Cleft 郄上 (alternate name Stop Red Point 止紅穴)

- -3 cun above PC-4 or 4 cun distal to antecubital crease on the PC channel.
- Flexor Carpi Radialis; Palmaris Longus; Flexor Digitorum Profundus; Flexor Digitorum Superficialis
- Comment: Insertion on the radial side targets the FCR. Insertion on the ulnar side targets the Palmaris Longus, which can be absent in some individuals. Deeper insertion targets the FDS and FDP.

ZhouJian Elbow Tip 肘尖

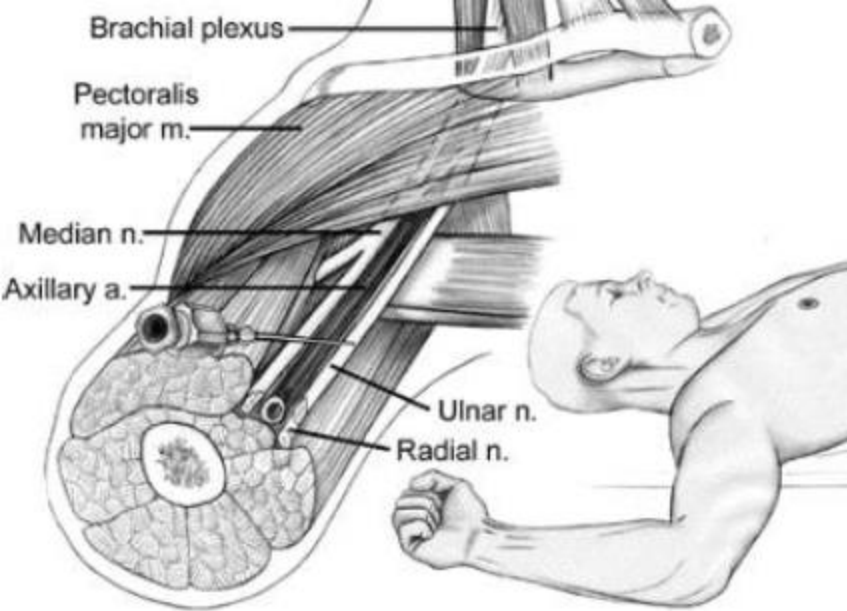
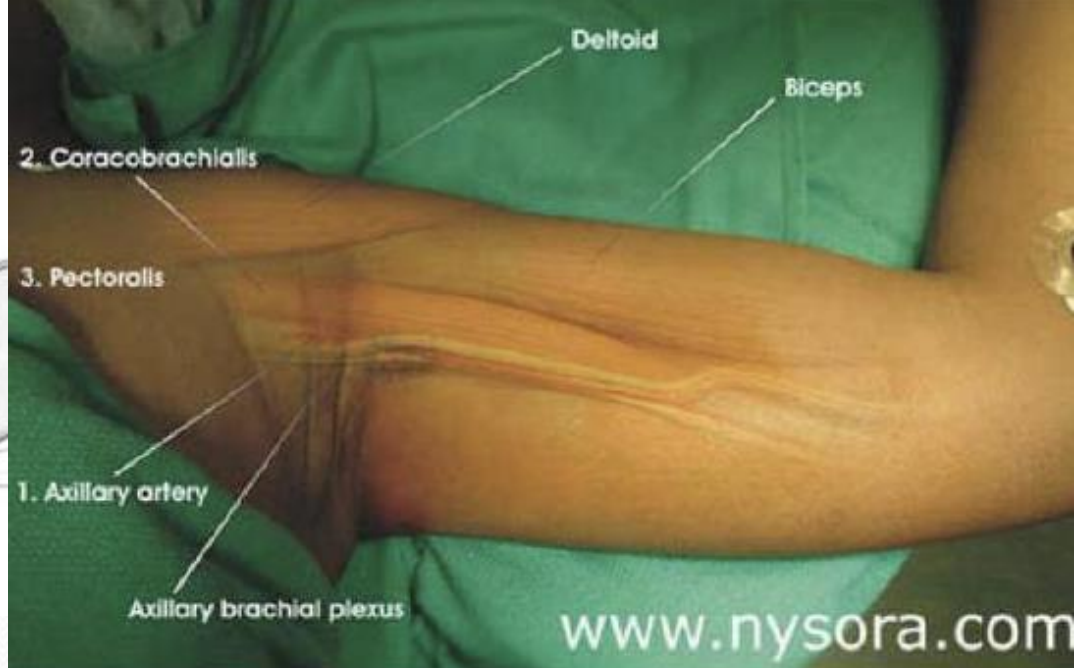
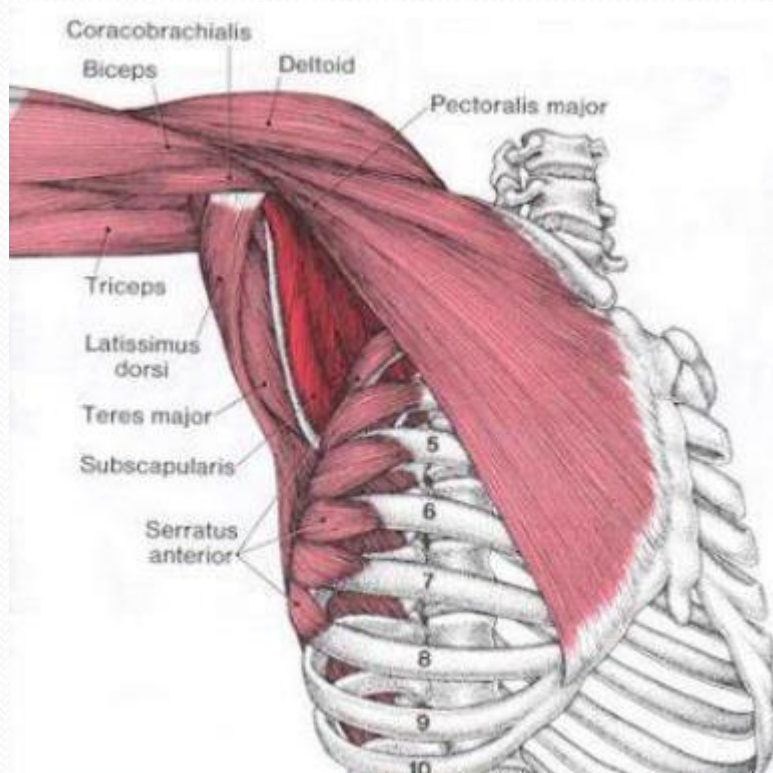
- Aconeus
- Comment: Trigger point in the aconeus muscle can present with lateral epicondyle pain.



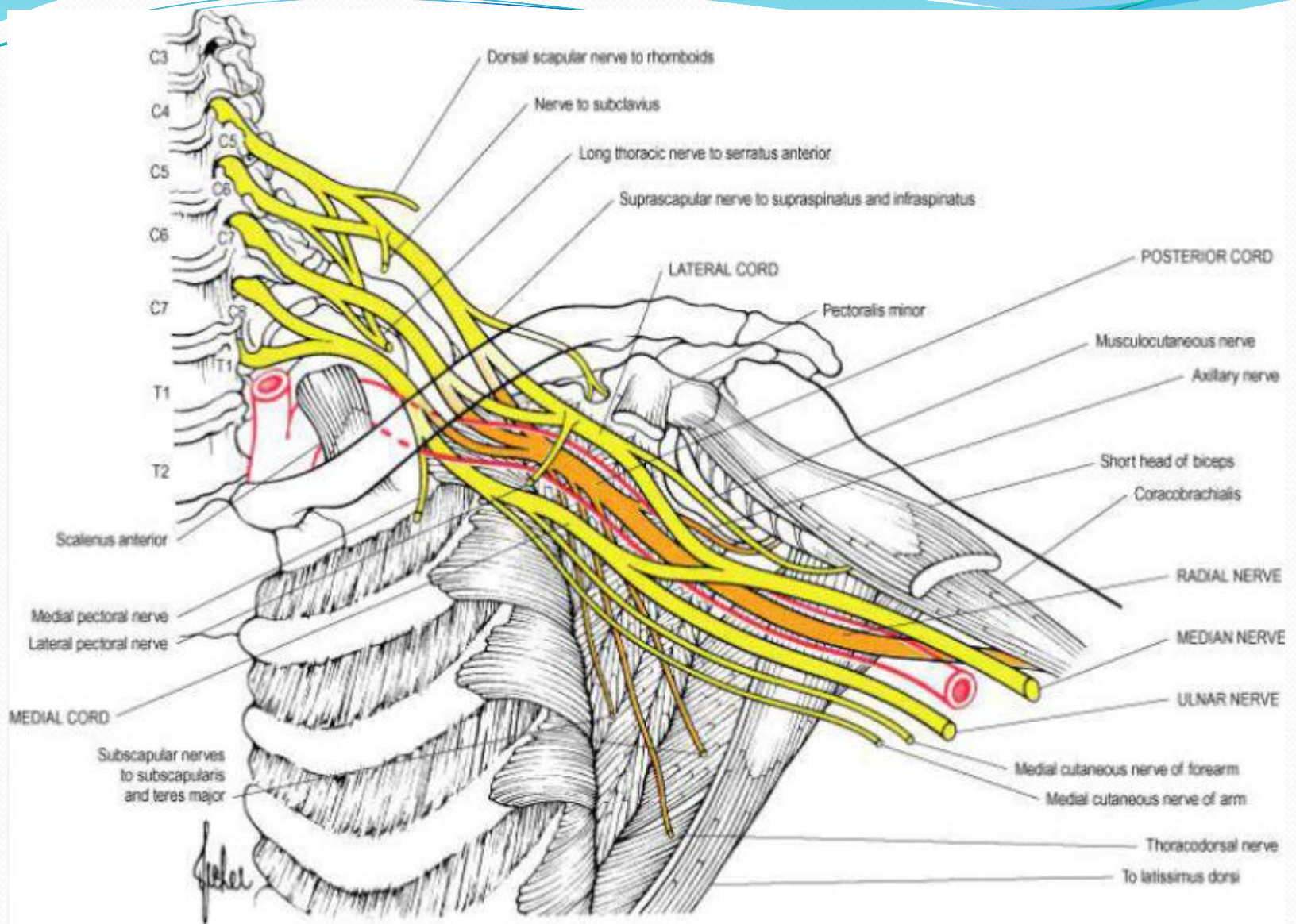
HT-1 JiQuan

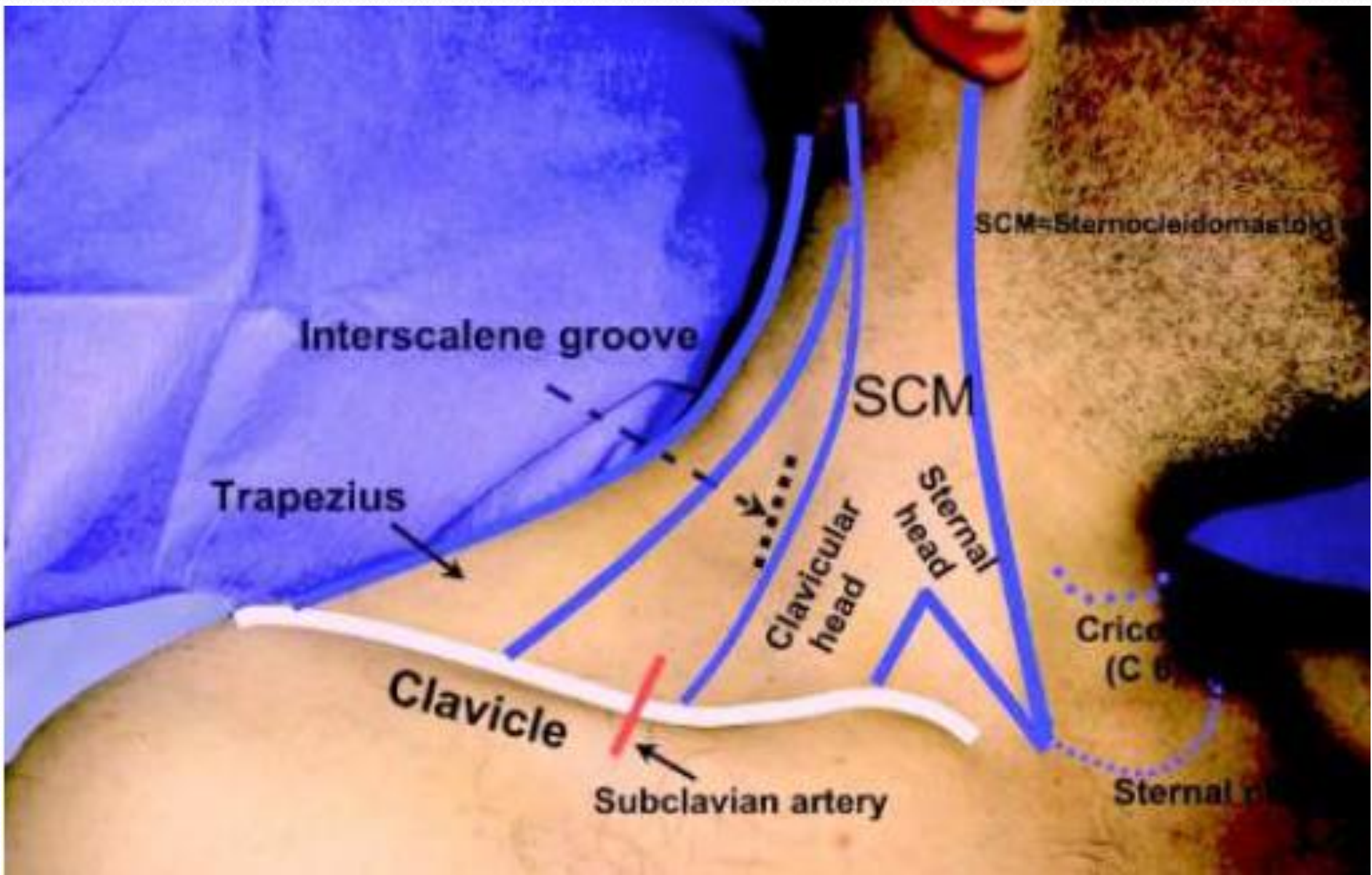
Highest Spring

- Subscapularis muscle
- Ulnar & Radial Nerve (below artery); Median & Musculocutaneous Nerve (above artery)
- 極泉，在腋下筋間，動脈入胸中，手少陰脈氣所發，刺入三分，灸五壯。
- Systematic Classic: HT-1, under the armpit between the sinews, in the place where the pulsating vessel enters the chest, where Hand ShaoYin Channel Qi issues, puncture 3 fen, moxa 5 cones.
- **Comment:** the pulsating vessel is the Axillary Artery. The sinews are likely to be the Pectoralis Major and Latissimis Dorsi muscles.



Brachial Plexus & Interscalene needling technique

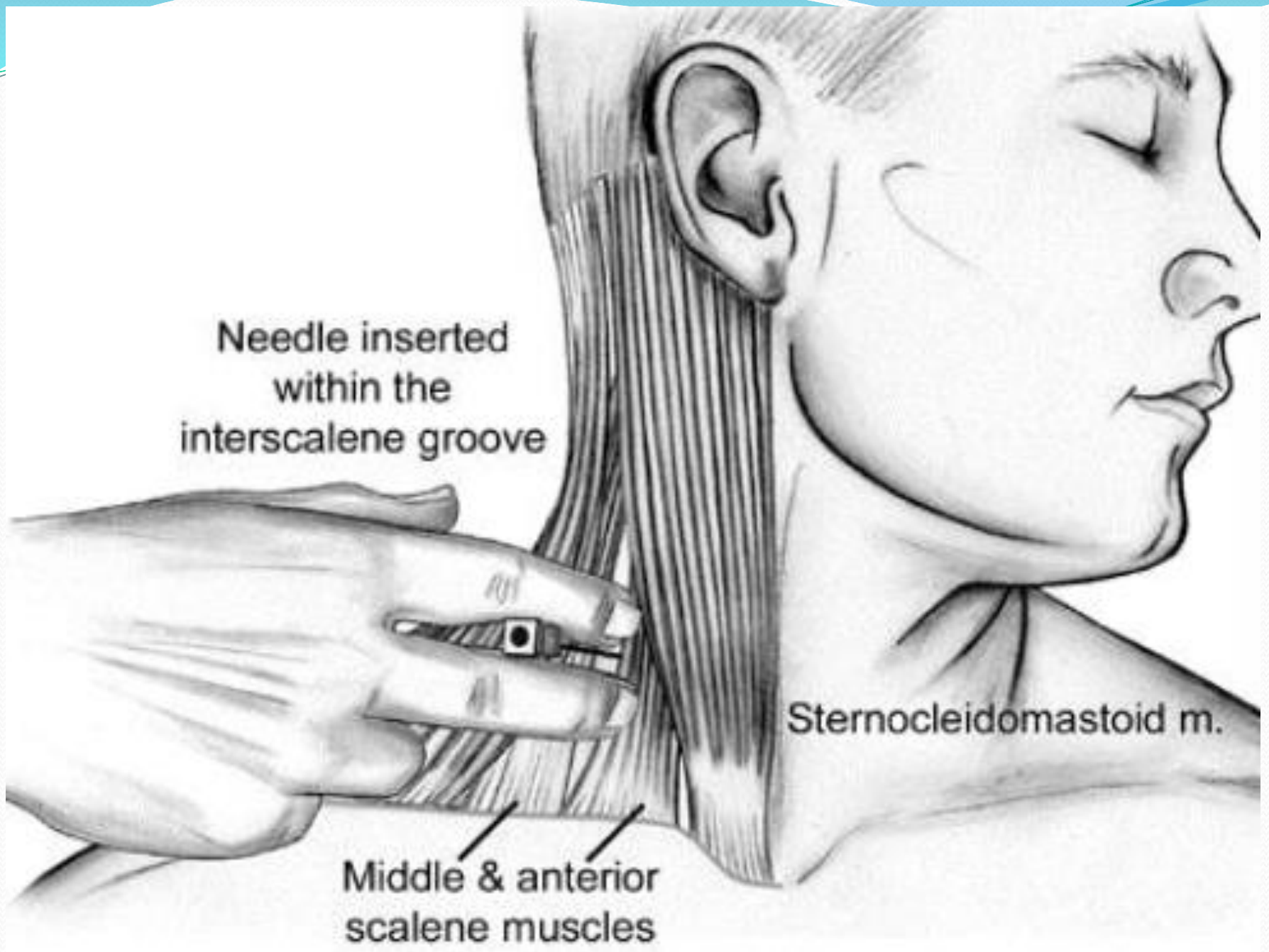




Needle inserted
within the
interscalene groove

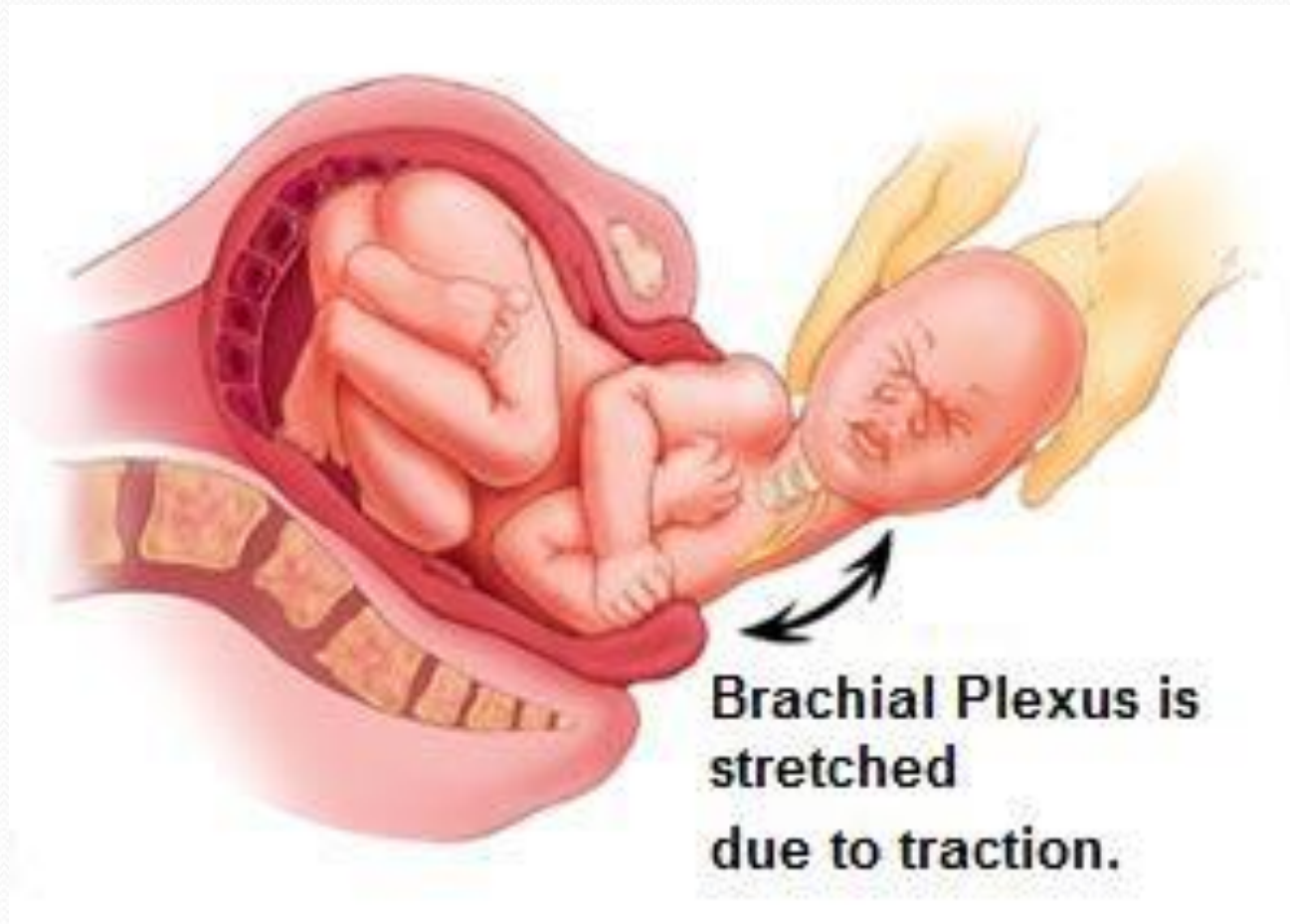
Sternocleidomastoid m.

Middle & anterior
scalene muscles



Neuromyofascial Acupuncture Treatment Guide

- 
- Sensory: Cutaneous innervation, often choice of distal points, Luo points, shu-stream points.
 - Motor: Nerve trunks, often choice of proximal points.
 - Autonomic: Tend to travel with sensory nerves. Usually involve parasympathetic/Vagal stimulation or Neck/Head points
 - Radiculopathy: Perispinal points
 - Trigger Point: Local points by palpation



Brachial Plexus is stretched due to traction.

Erb's Duchenne Palsy

- Involving upper roots (C5, C6 and C7)
- Affecting the musculature of the upper arm
- Shows the “waiter tips” posture of the paralyzed limb.
- The arm lies medial rotation at the side of the chest
- The elbow is extended (paralyzed C5, C6)
- Forearm is pronated
- Wrist and digits are flexed

Erb's Duchenne Palsy



- This posture occurs because of paralysis and atrophy of:
- Deltoid
- Biceps brachii
- Brachialis
- brachioradialis

Klumpke's Palsy

- Rare
- Involving lower root (C8 and T1)
- Affecting forearm and hand
- Characterize by paralysis and atrophy of the small hand muscles and flexor of the wrist.
- Claw hand



