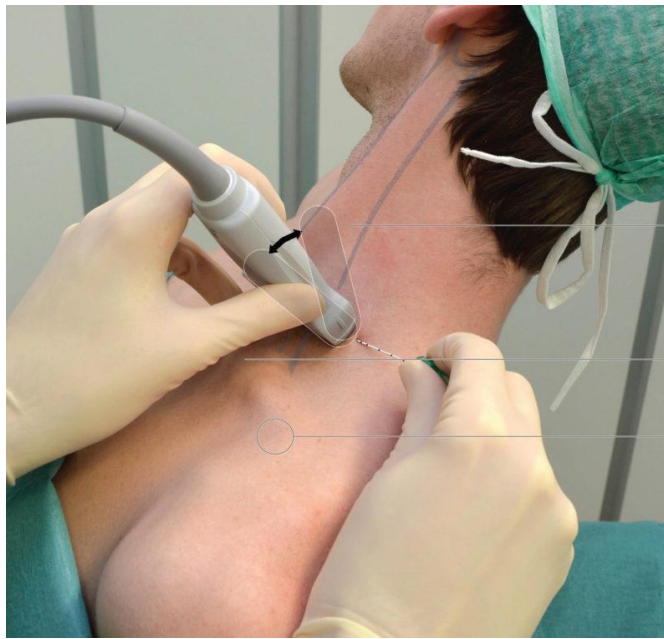


# Ultrasound Guided Nerve Blocks



This handout has been prepared with content from NYSORA and Tintinalli's Text Book of Emergency Medicine



Sternocleidomastoid muscle

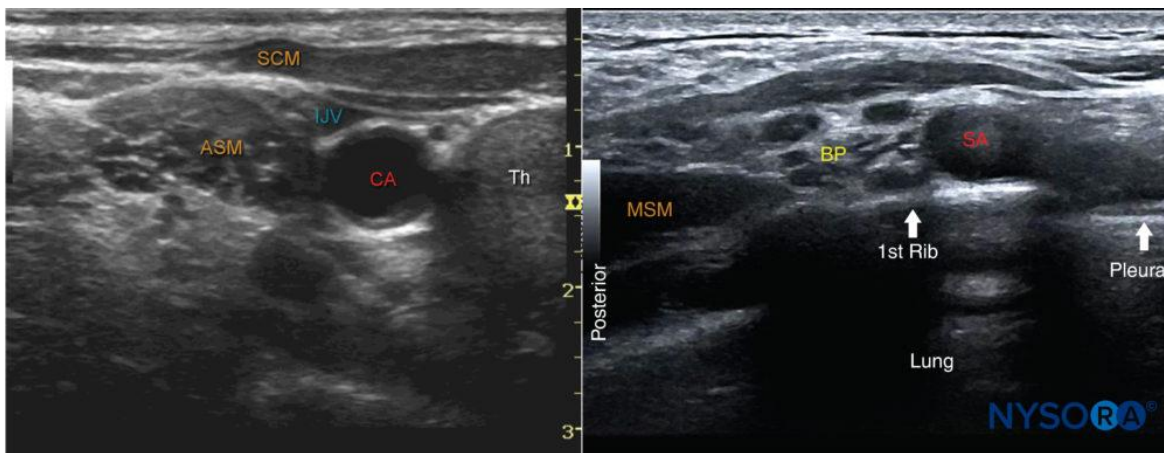
Clavicle

Acromion

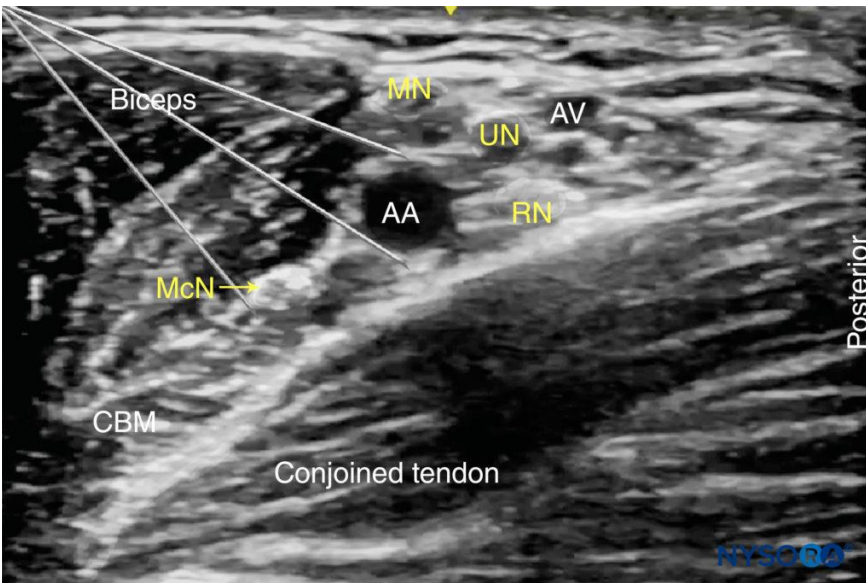
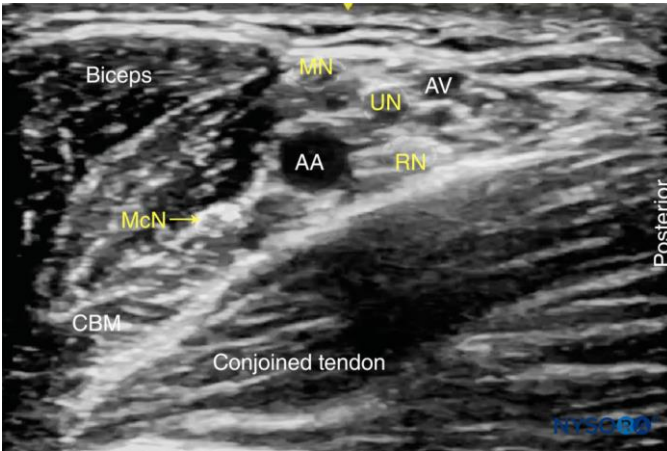
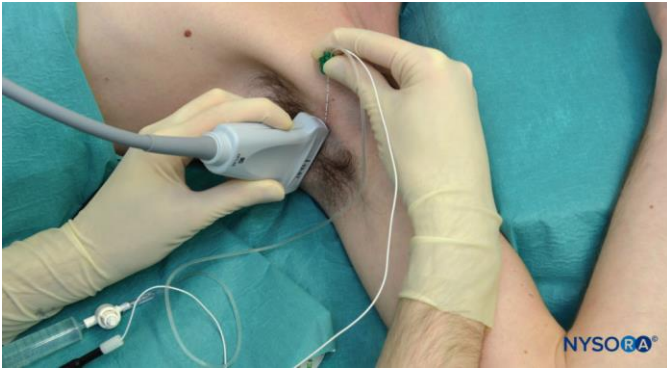
NYSORA®



10 - 20  
mL



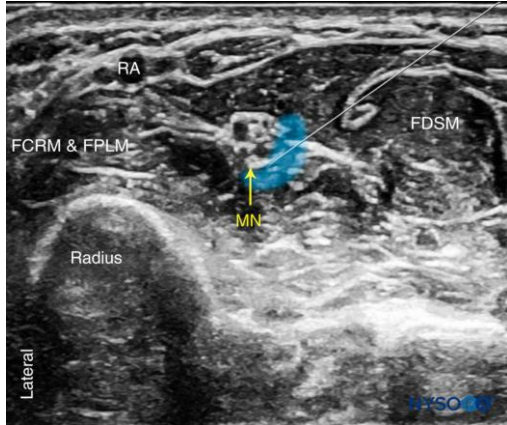
**(A)** Ultrasound image just below the level of the cricoid cartilage and medial to the sternocleidomastoid muscle (SCM). ASM, anterior scalene muscle; CA, carotid artery; IJV, internal jugular vein; SCM, sternocleidomastoid muscle; Th, thyroid gland. **(B)** View of the brachial plexus (BP) at the supraclavicular fossa. When identification of the brachial plexus at the interscalene level proves difficult, the transducer is positioned at the supraclavicular fossa to identify the BP superficial and posterior to the subclavian artery (SA). The transducer is then slowly moved cephalad while continuously visualizing the brachial plexus until the desired level is reached.



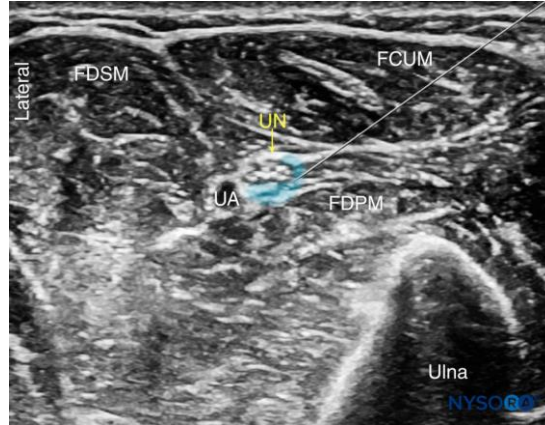
Needle insertions for axillary brachial plexus block. Axillary block can be accomplished by two to four separate injections, depending on the disposition of the nerves around the axillary artery (AA) and the quality of the image. MCN, musculocutaneous nerve; MN, median nerve; RN, radial nerve; UN, ulnar nerve. AA, axillary vein, AV, axillary vein.



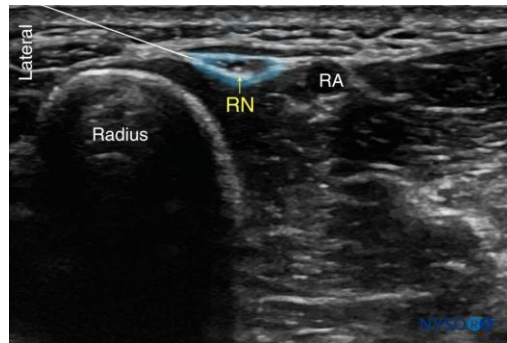
**FIGURE 1.** Ultrasound-guided wrist block. Transducer and needle positions for (A) median nerve block; (B) ulnar nerve block; (C) radial nerve block.



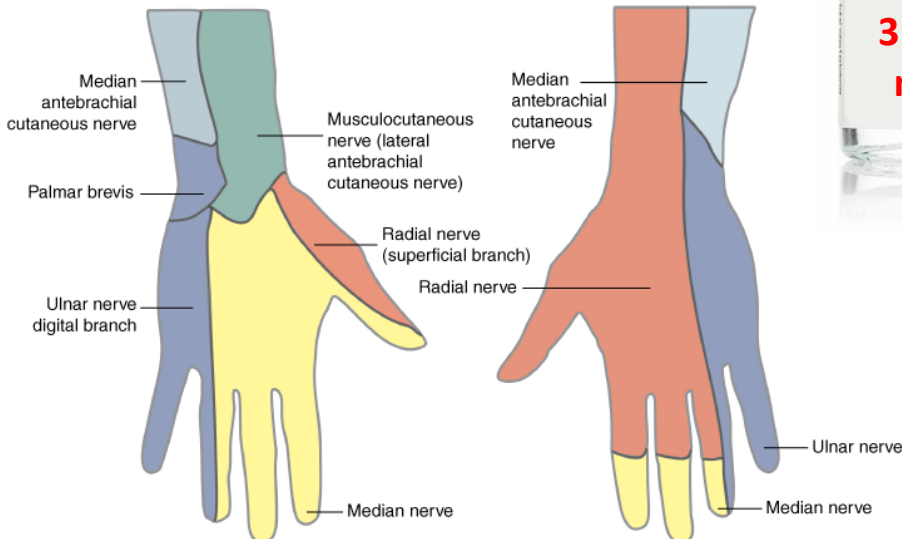
Sonoanatomy of the median nerve (MN) at the forearm. RA, radial artery; FCRM, flexor carpi radialis muscle; FPLM, flexor pollicis longus muscle; FDSM, flexor digitorum superficialis.



UA, ulnar artery; FCUM, Flexor carpi ulnaris. FDP, flexor digitorum profundus muscle; FDSM, flexor digitorum superficialis muscle.

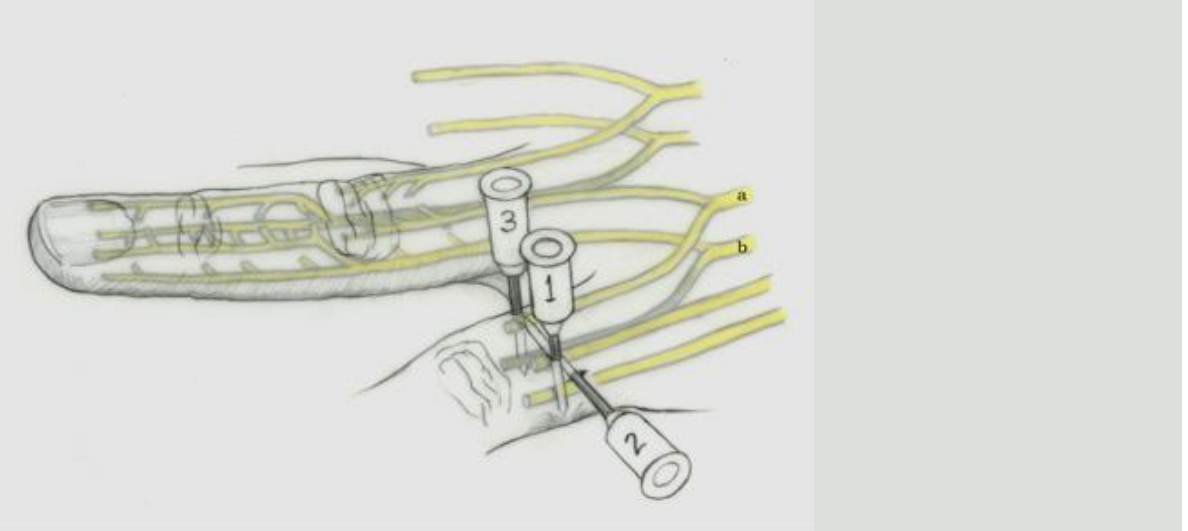
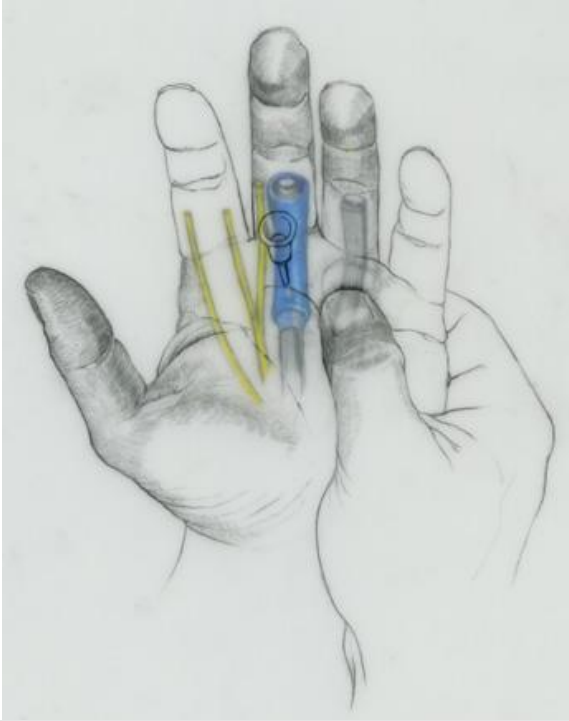
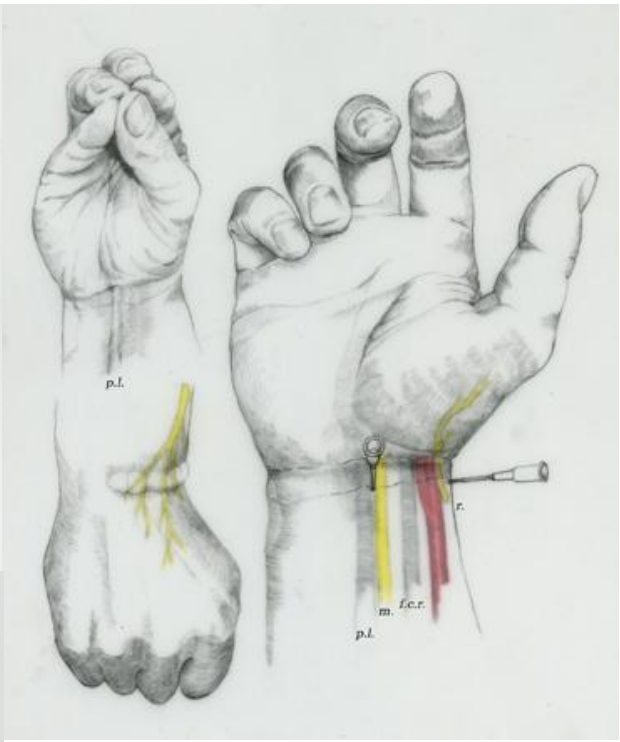
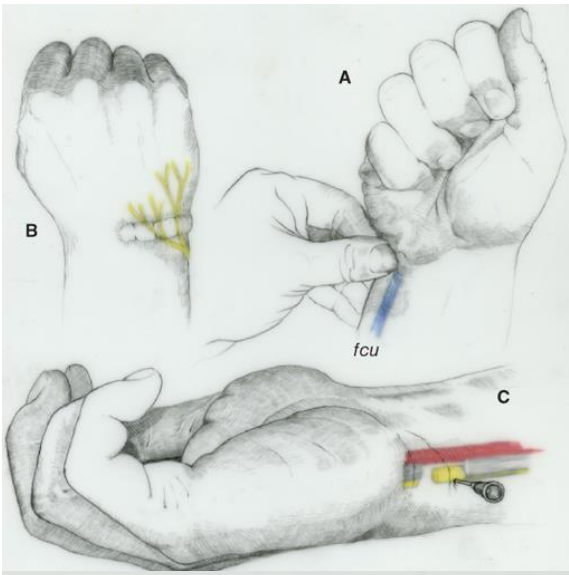


Sonoanatomy of the radial nerve (RN) at the level of the wrist. The superficial branch of the RN at the wrist is shown lateral to the radial artery (RA), and the approximate needle path to reach the branch of the radial nerve is shown with an approximate spread of local anesthetic (blue-shaded area) to anesthetize it.



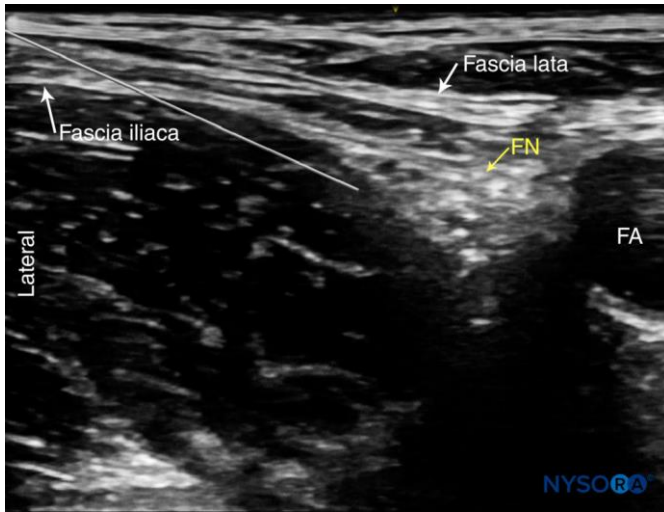
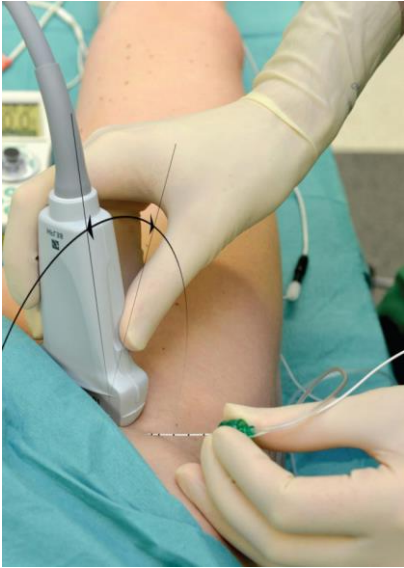
Source: Hadzic A: Hadzic's Peripheral Nerve Blocks and Anatomy for Ultrasound-Guided Regional Anesthesia, 2nd Edition: www.accessanesthesiology.com

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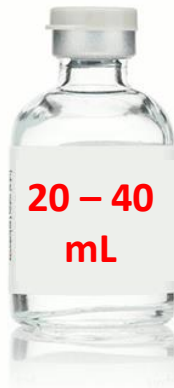


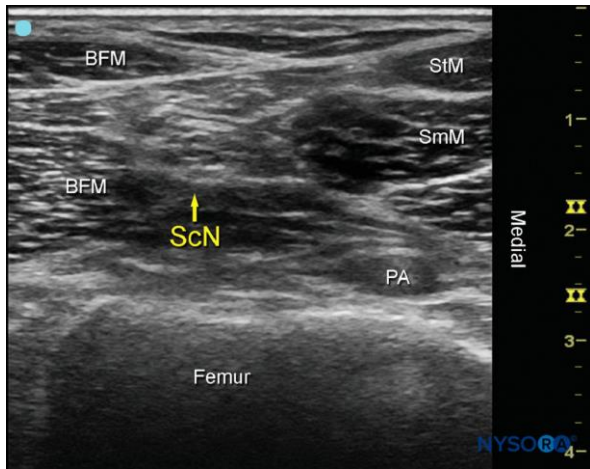
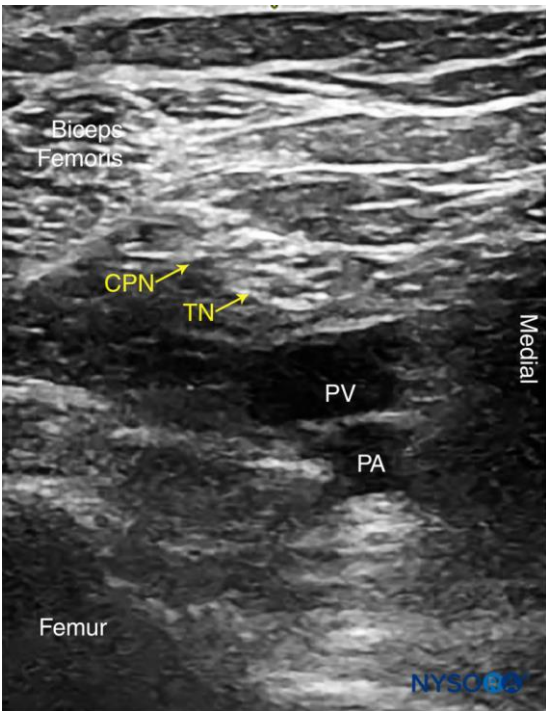
Source: Tintinalli JE, Stapczynski JS, Ma OJ, Cline DM, Cydulka RK, Meckler GD:  
*Tintinalli's Emergency Medicine: A Comprehensive Study Guide, 7th Edition*:  
<http://www.accessmedicine.com>  
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# Femoral Nerve



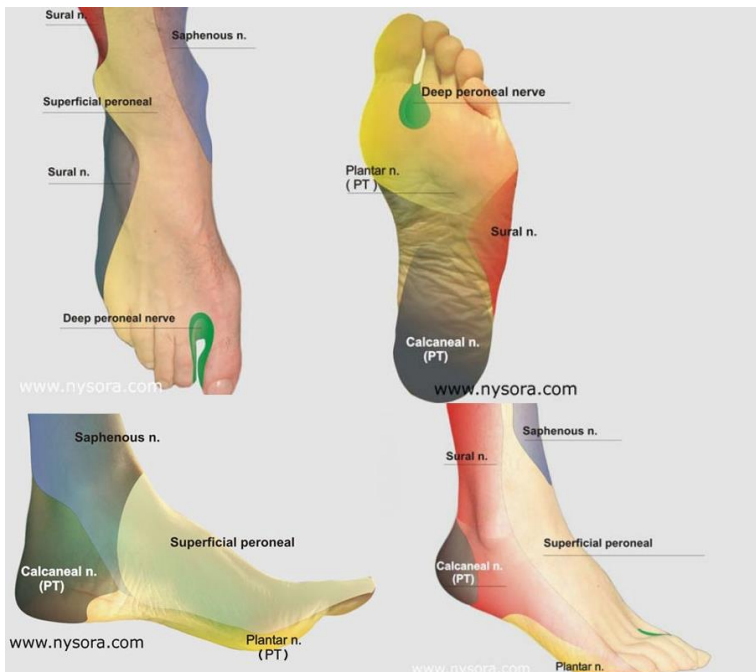
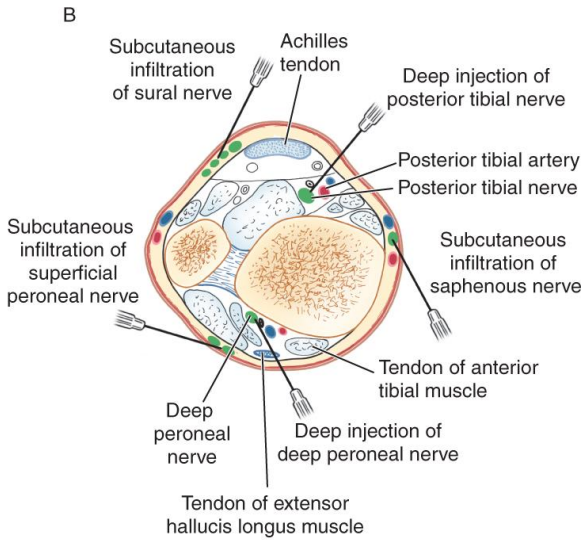
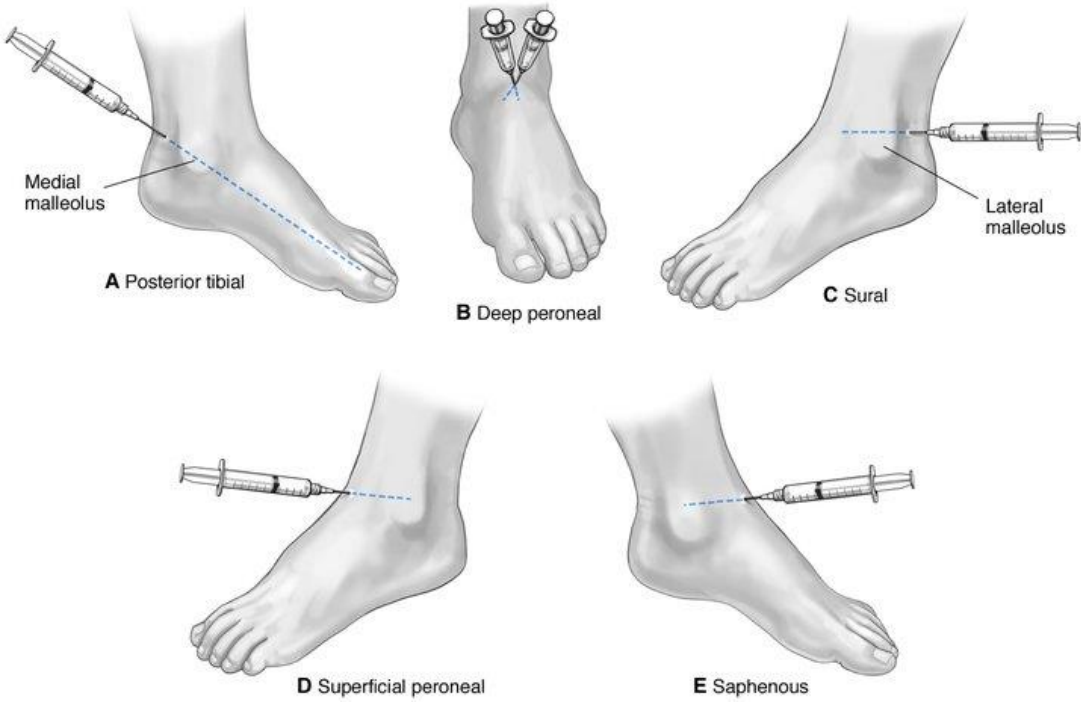
# Fascia Iliaca



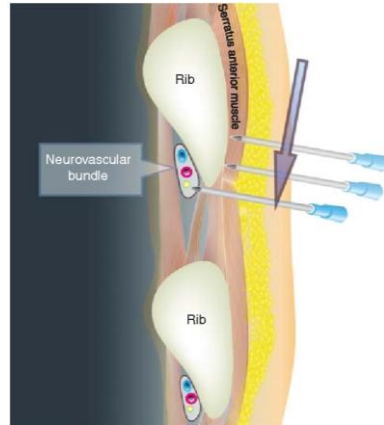
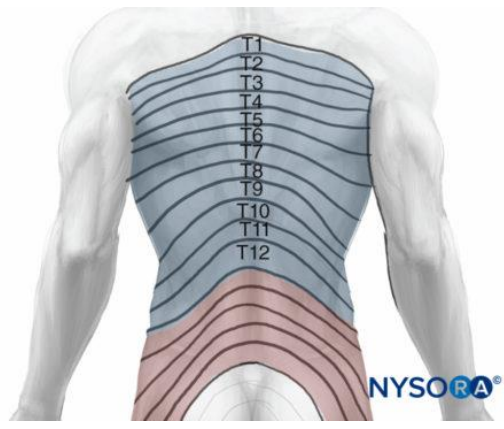
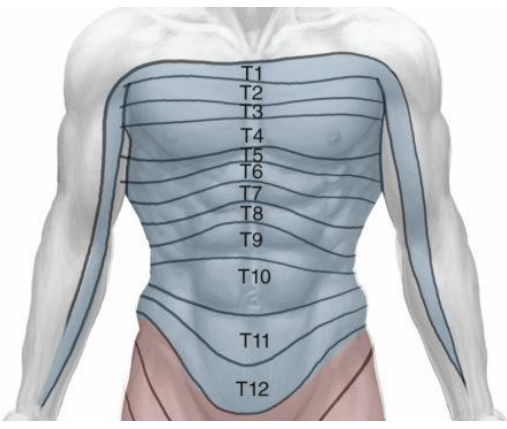


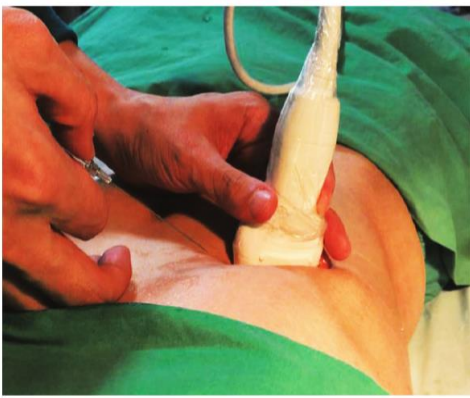
*Sonoanatomy of the sciatic nerve (ScN) before its division. Shown are the ScN, superior and lateral to the popliteal artery and vein (PA) (PV), positioned between the biceps femoris muscle (BFM) the semimembranosus muscle (SmM), and the semitendinosus muscle (StM), Common Peroneal Nerve (CPN), Tibial Nerve (TN).*



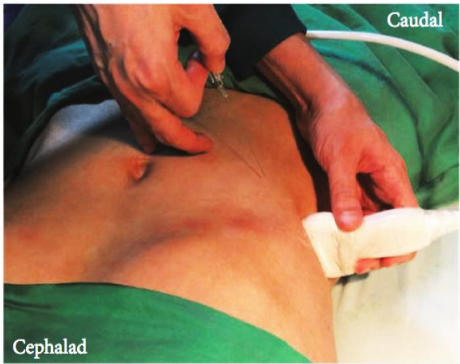
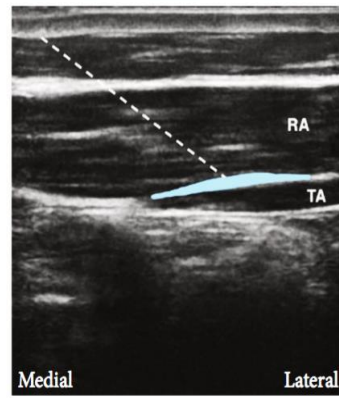
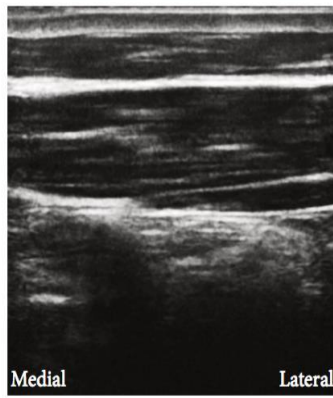




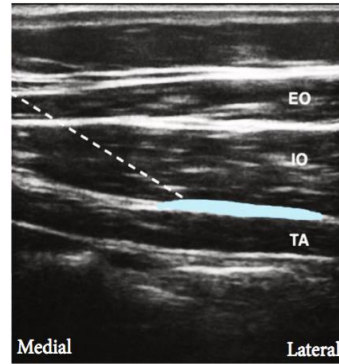
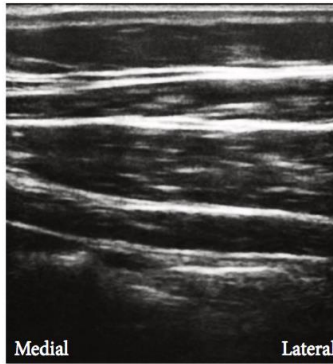




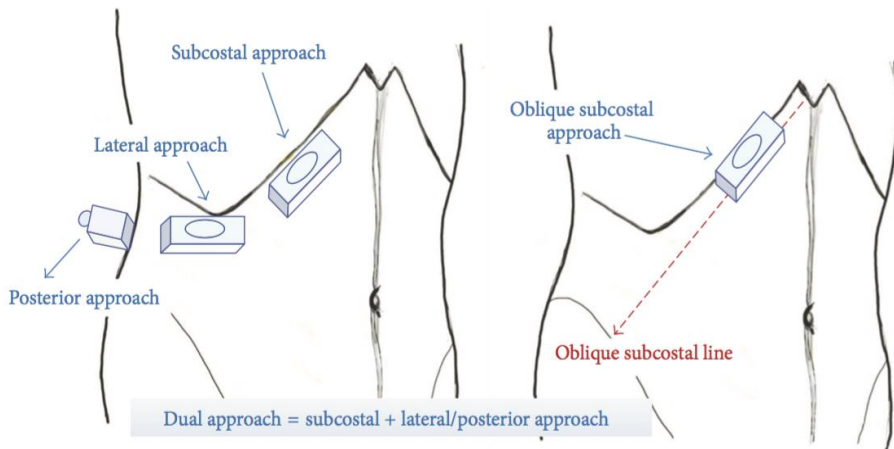
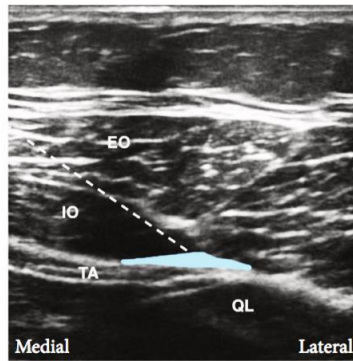
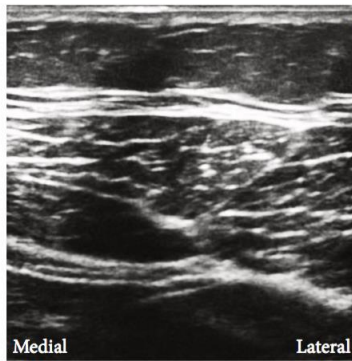
**Subcostal TAP**

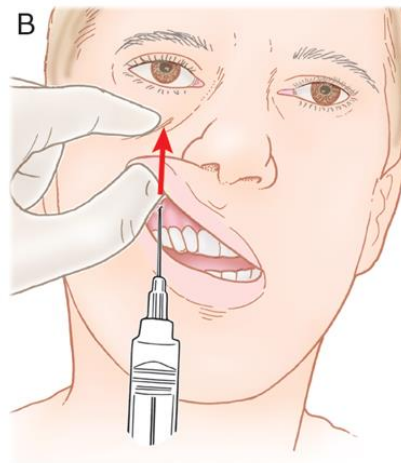
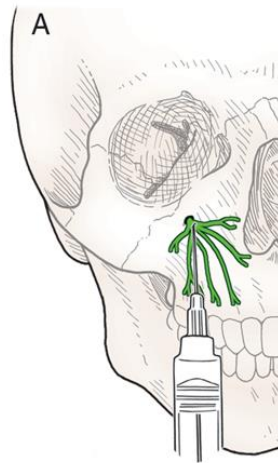
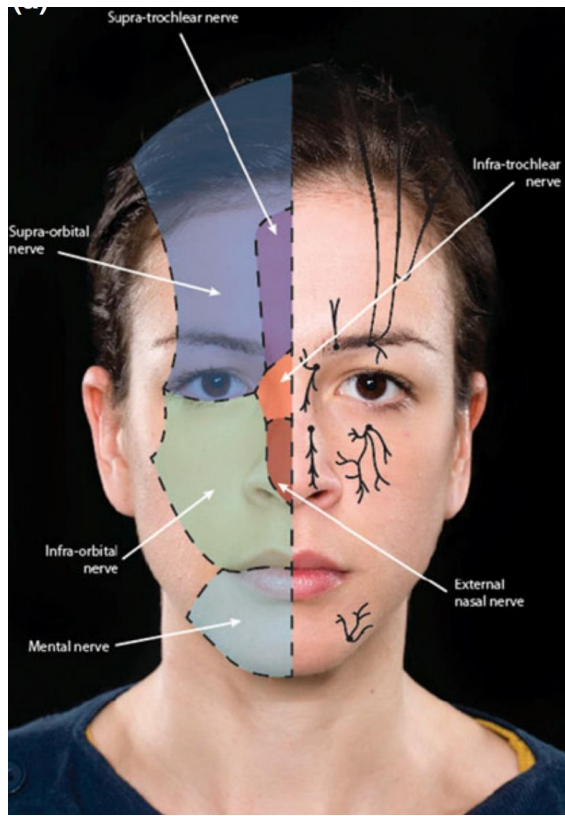
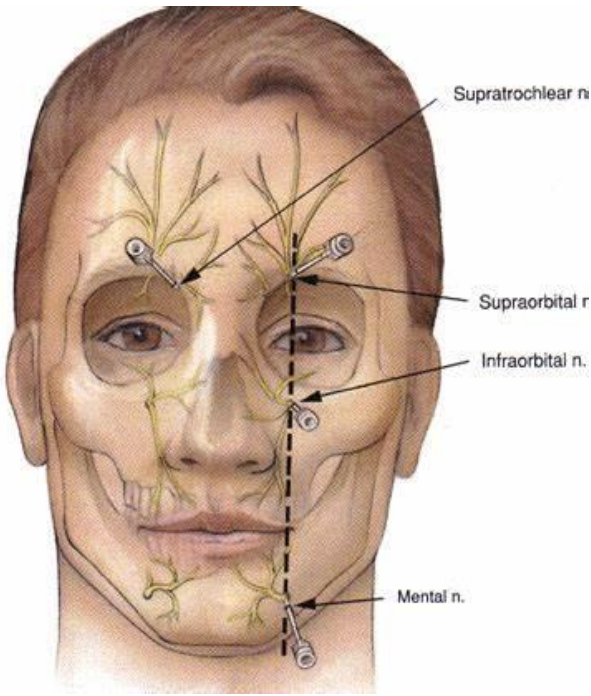


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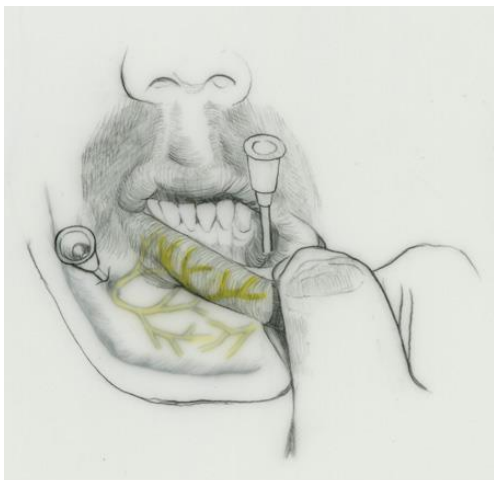


**Posterior TAP**





Source: Reichman EF: *Emergency Medicine Procedures, Second Edition*; www.accessemergencymedicine.com  
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Source: Tintinalli JE, Stapczynski JS, Ma OJ, Cline DM, Cydulka RK, Meckler GD: *Tintinalli's Emergency Medicine: A Comprehensive Study Guide, 7th Edition*; http://www.accessmedicine.com  
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