

## Block Darts

Credit to Bradly Palocko and Highland Ultrasound

- Equipment:
  - o Proctor with block knowledge
  - o US Machine, gel, towels
  - o Human-shaped Target with sectioned off parts of body: Arms, Legs, Torso, Head/Neck
    - Set-up at distance where there is some challenge to hit different parts of body but not impossible
  - o Projectile launcher (e.g. darts)
- Rules: Use whole time to get as many points as possible
  - o Launch projectile until strike area of body
    - Team then names a block in that area. If team is stuck proctor may give hint.
    - If there are no blocks remaining in area hit, team needs to launch projectile again until they hit an area that has remaining blocks
  - o Team tries to scan nerve. Points out target on. Get points, Triggers question
  - o Question answered
  - o Team roles rotate and start again
- Scoring
  - o **14 total blocks:** 10 points per correctly identified blocks
  - o **15 total questions:** 10 points per correct question

### Upper:

- Superficial Cervical Plexus
- Interscalene Brachial Plexus
- Supraclavicular Brachial Plexus
- Facial Nerve Blocks

### Arm:

- Radial
- Ulnar
- Median

### Leg:

- Fascia Iliaca
- PENG
- Saphenous Nerve Block
- Popliteal/Sciatica
- Posterior Tibial
- Penile Block

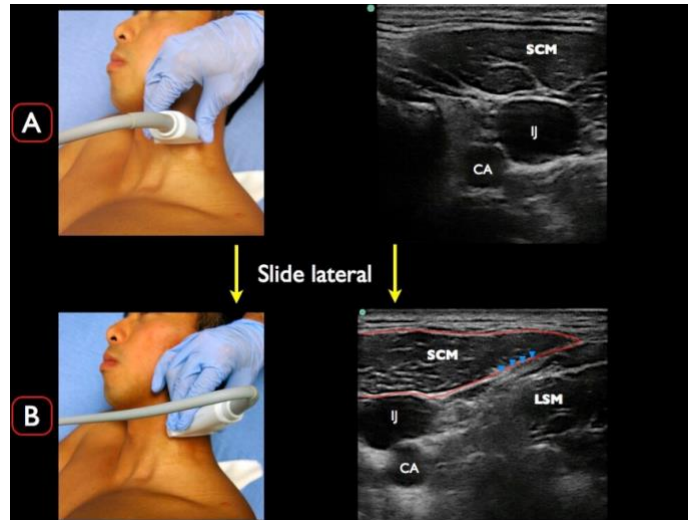
### Truncal:

- Serratus
- TAP
- ESPB

**'Upper extremity and Head & Neck -**

1. Superficial Cervical Plexus

Location:

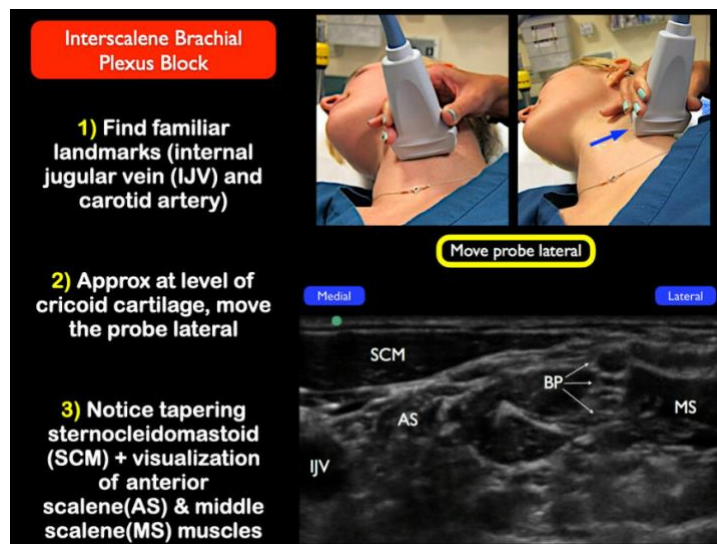


Second order questions:

- Name the two muscle bellies that run along the SCP: *Sternocleidomastoid and Levator scapulae muscle (scalene muscles also acceptable answer)*

2. Interscalene Brachial Plexus

Location:

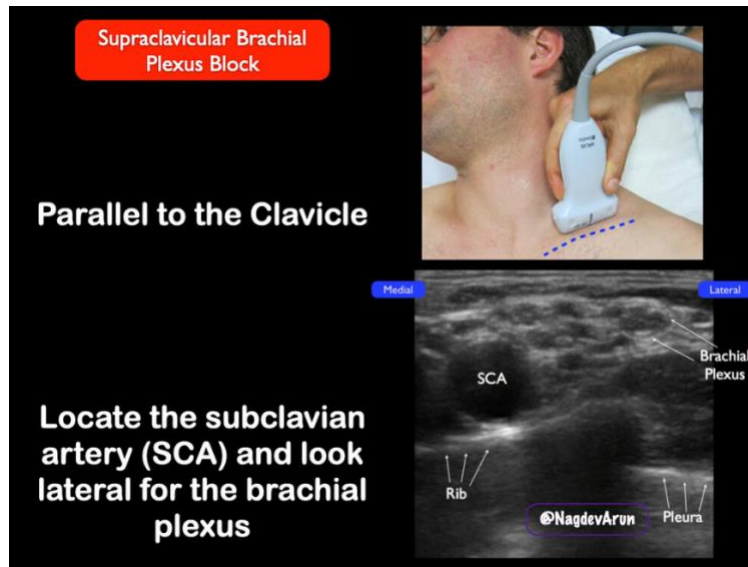


Second Order Question:

- Which nerve roots are you blocking when performing a interscalene block? *C5-C8 is the goal*
- (Bonus Points) What structure mimics the brachial plexus? How do you avoid confusing them? *Transverse cervical artery; use doppler*

### 3. Supraclavicular Brachial Plexus

Location:



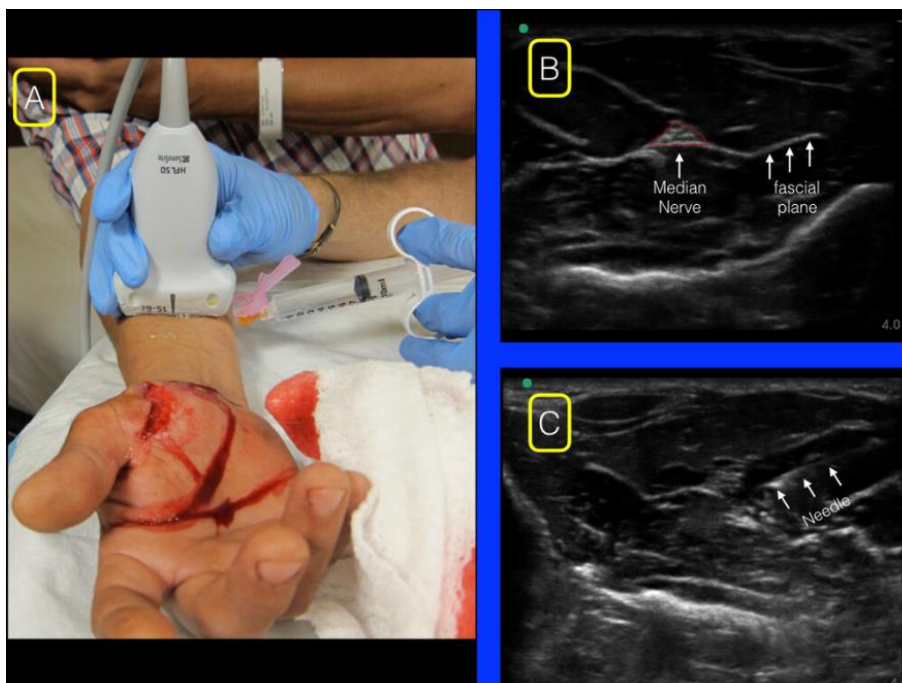
Second Order Question:

- Oh no, you injected into the SCA! What is the dosing of intralipid therapy for lidocaine/bupivacaine toxicity? *Initial bolus of 20% lipid emulsion 1.5mL/kg or a 100 mL bolus followed by 0.25mL/kg/min for 30-60 minutes or until hemodynamically stable.*

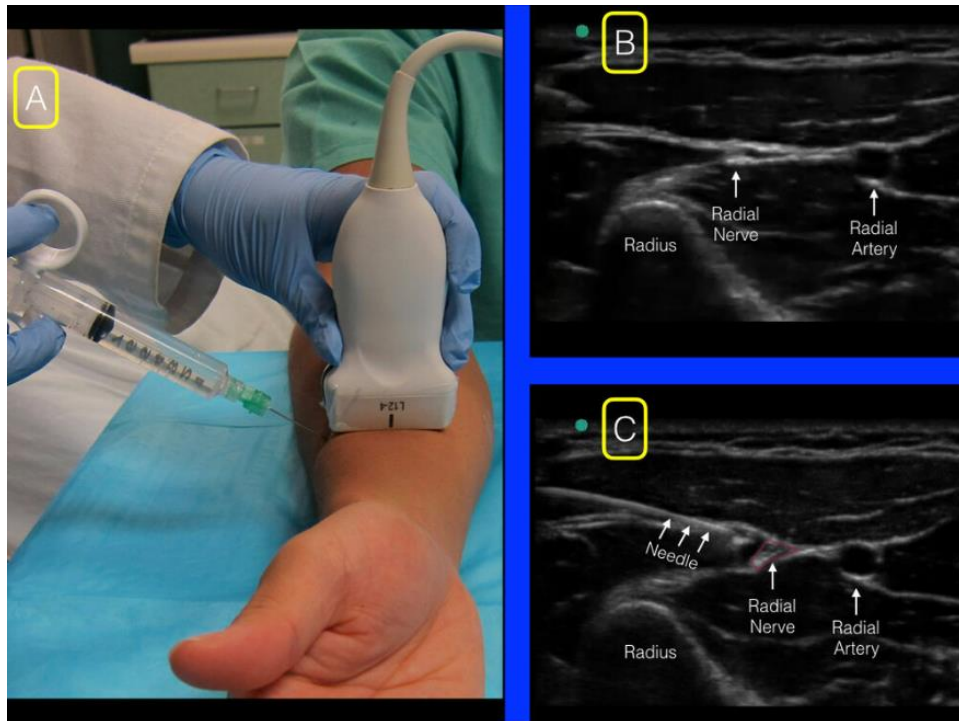
### 4. Median/Ulnar/Radial

Locations:

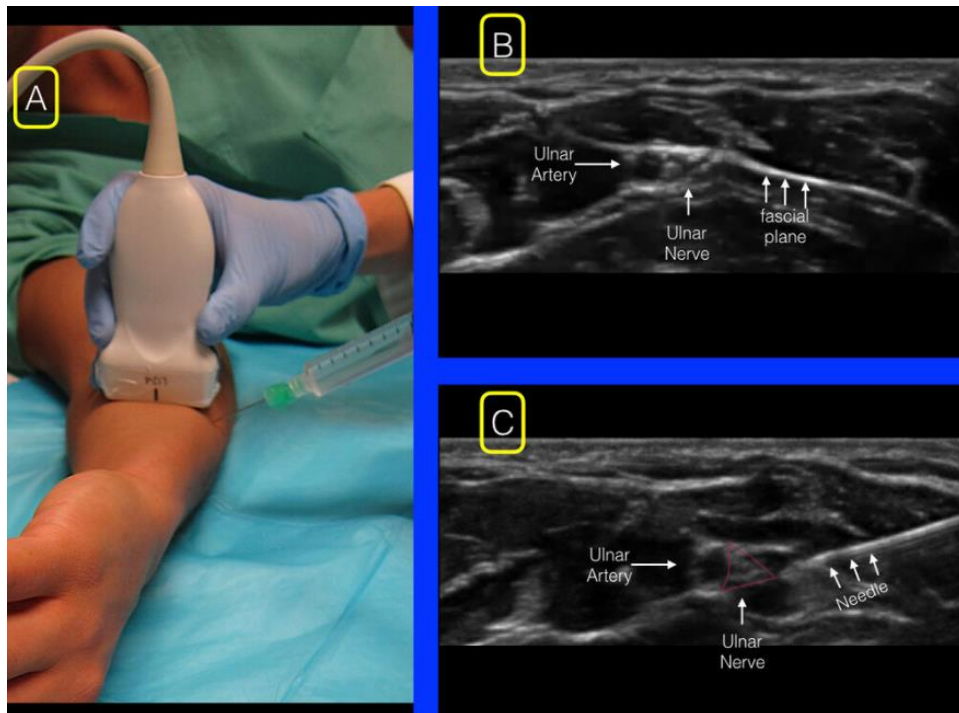
Median



Radial

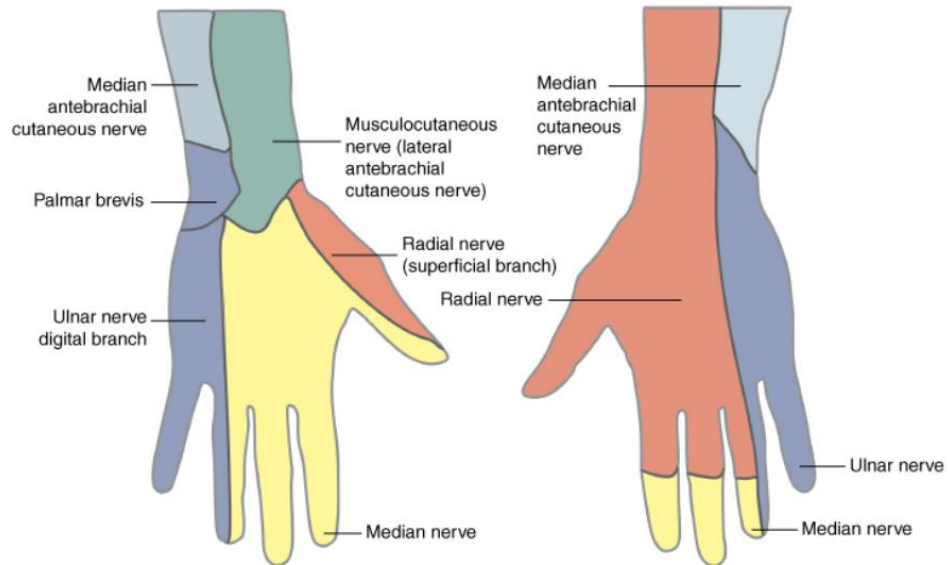


Ulnar



Second order question:

- What are three nerves that have sensory coverage for the forearm region?
- Radial, Median antebrachial and Lateral antebrachial (aka musculocutaneous)

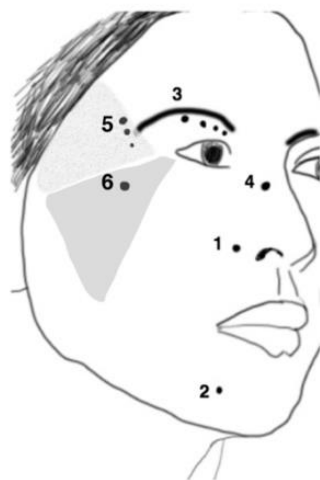


## 5. Facial Nerve Blocks

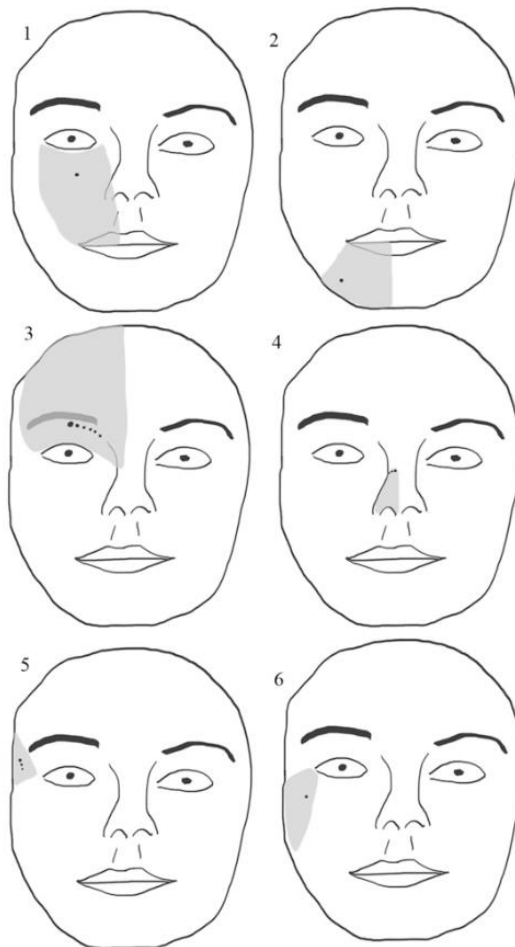
Locations:

### Facial nerve blocks

Injection points and area of anesthesia



1. Infraorbital
2. Mental
3. Supraorbital, supratrochlear, and infratrochlear
4. Dorsal nasal nerve
5. Zygomaticotemporal
6. Zygomaticofacial





Second Order Questions:

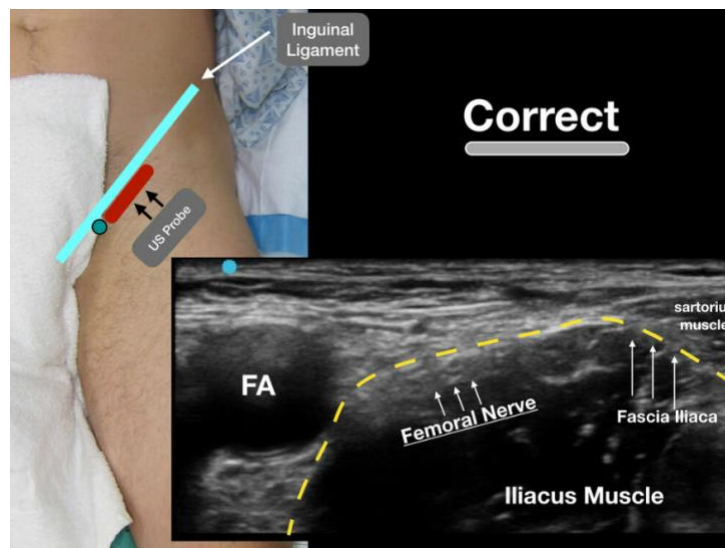


- Name the block best utilized for this:  
*Greater auricular nerve block*

**Lower Extremity -**

1. Fascia Iliaca

Location:

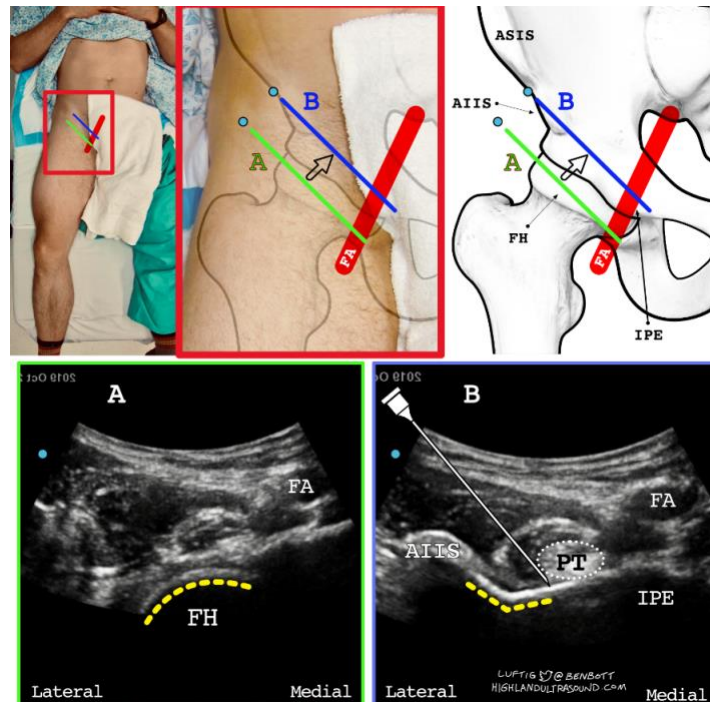


Second Order Question:

- Oh no, EPIC is down. What is the dose needed for large plane nerve blocks?  
*0.25% PF Bupivacaine 40mL = 100 mg*

## 2. PENG (Pericapsular Nerve Group)

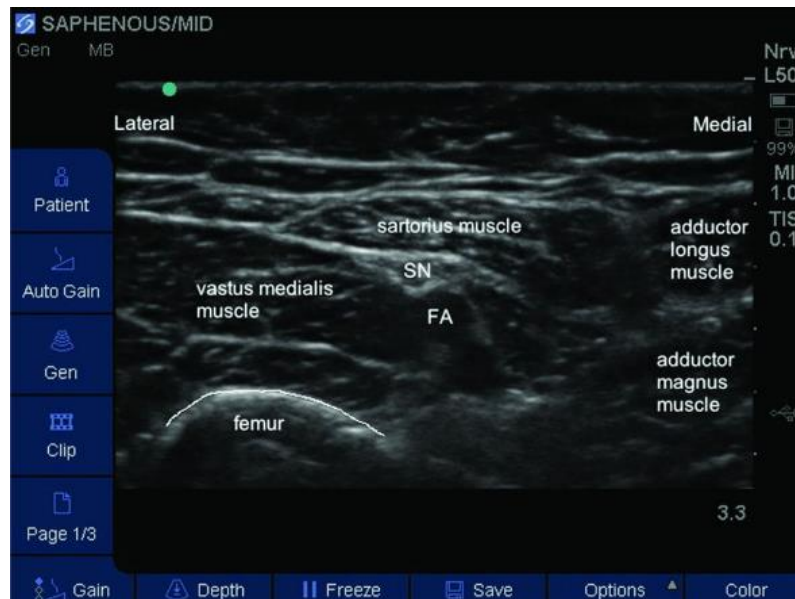
Location:



Second order question: What is the benefit of PENG over FIB? *In addition to providing coverage along the femoral nerve, the PENG also includes branches of the sciatica and obturator nerves allowing for more proximal coverage*

## 3. Saphenous Nerve Block

Location: (Mid-thigh)

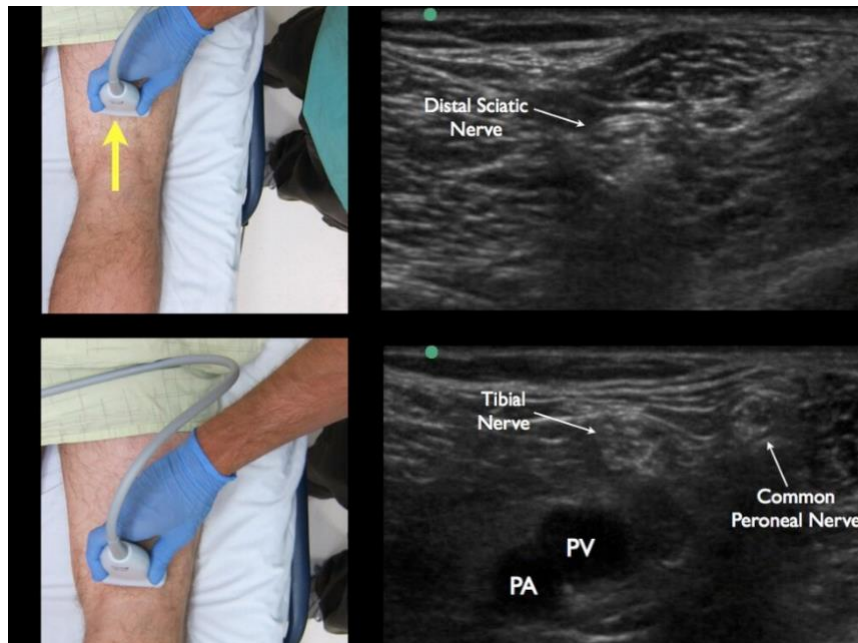


Second order:

The Saphenous provides \_\_\_\_ (*medial or lateral*) anesthesia as opposed to the popliteal block which provides \_\_\_\_ (*medial or lateral*) anesthesia to the lower leg.

#### 4. Popliteal Sciatica Block

Location:

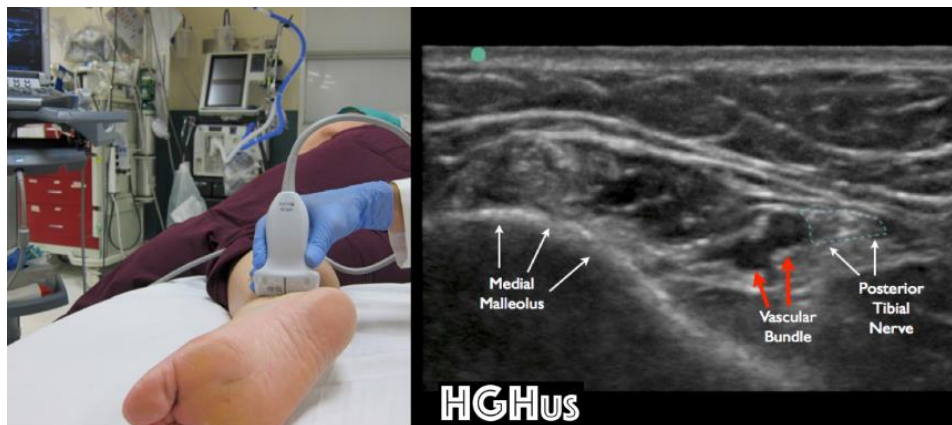


Second Order Question:

A patient cut the bottom of their foot on a piece of glass. You decide to perform a pop-block. Why does this work? *The plantar aspect of the foot is innervated by the medial calcaneal branches, medial plantar nerve, and lateral plantar nerve which are all branches from the tibial nerve.*

#### 5. Posterior tibial nerve

Location



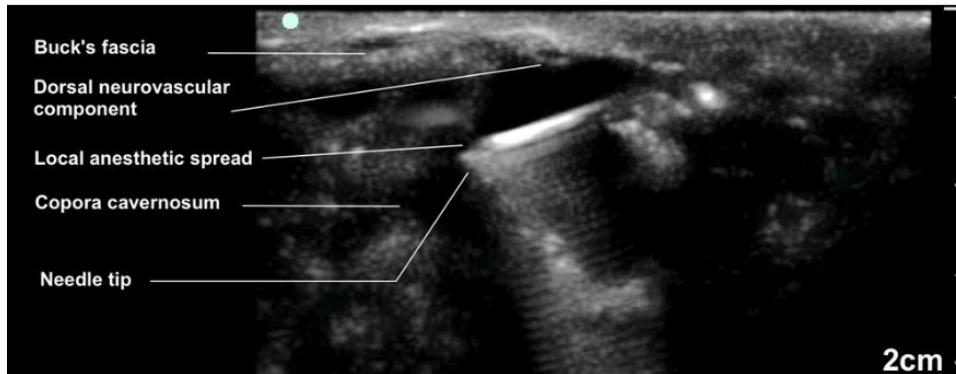
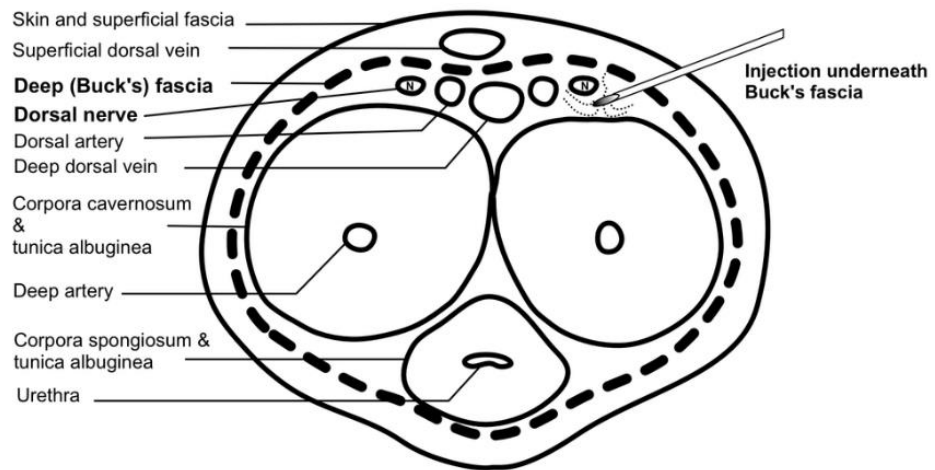
Second order question:

You ask Bob to perform this block for a bimalleolar fracture. Bob looks disappointed. Why is Bob disappointed in you? *While the PT block is good for a calcaneal fracture the ankle itself has multiple innervations and would be better blocked w/ a pop and/plus saphenous block.*



6. Penile Block

Location: pretty straight forward...



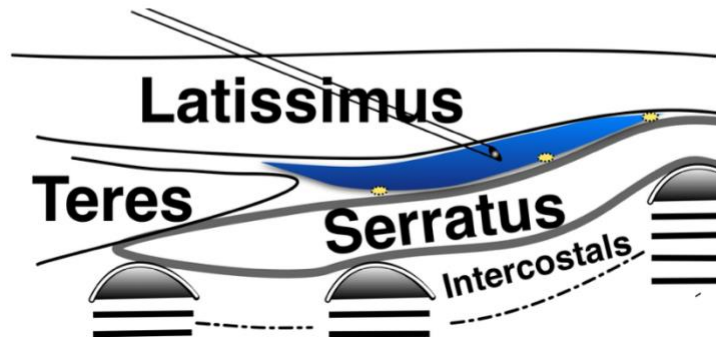
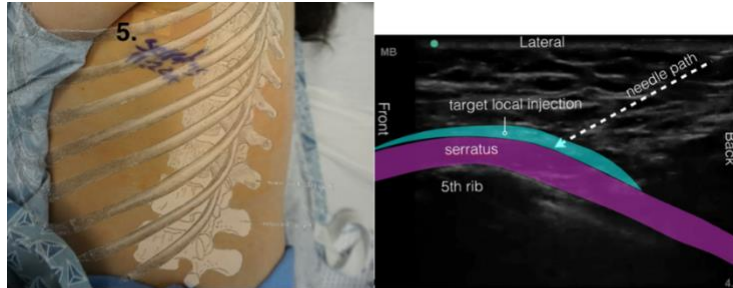
Second order:

Innervation of the penis is derived from which nerve primarily? *Pudendal nerve which branch to form the dorsal penile nerves*

**Truncal Blocks -**

1. Serratus

Location:

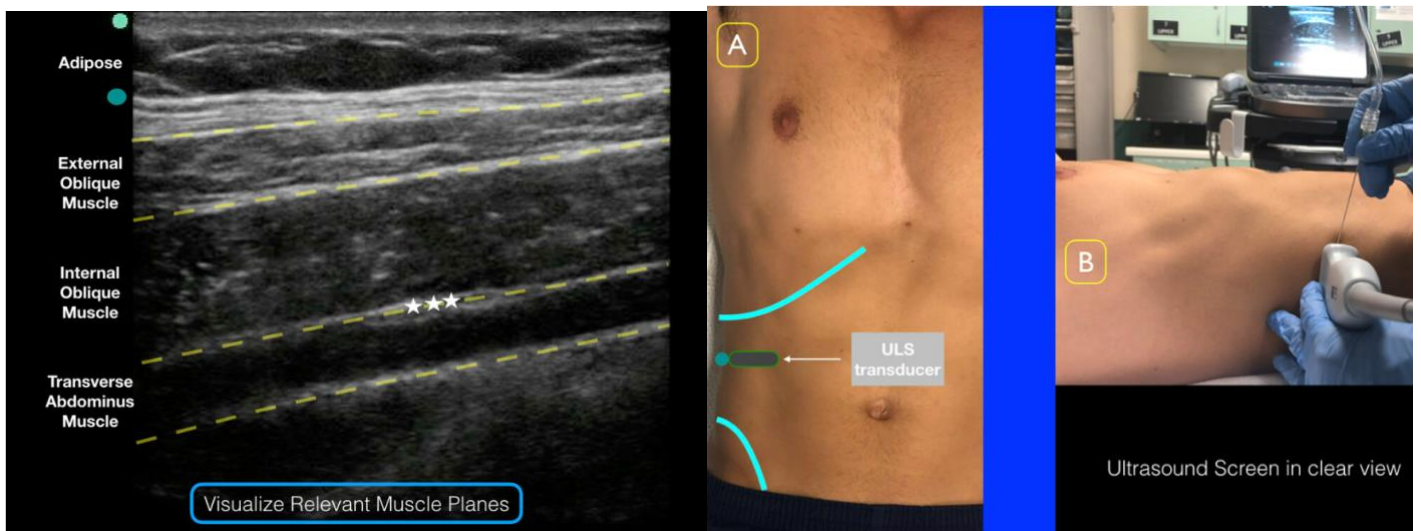


Second order question:

Is there a benefit to injecting below the serratus vs above? *No. The clinic effect is the same because there is continuity of the space.*

2. TAP

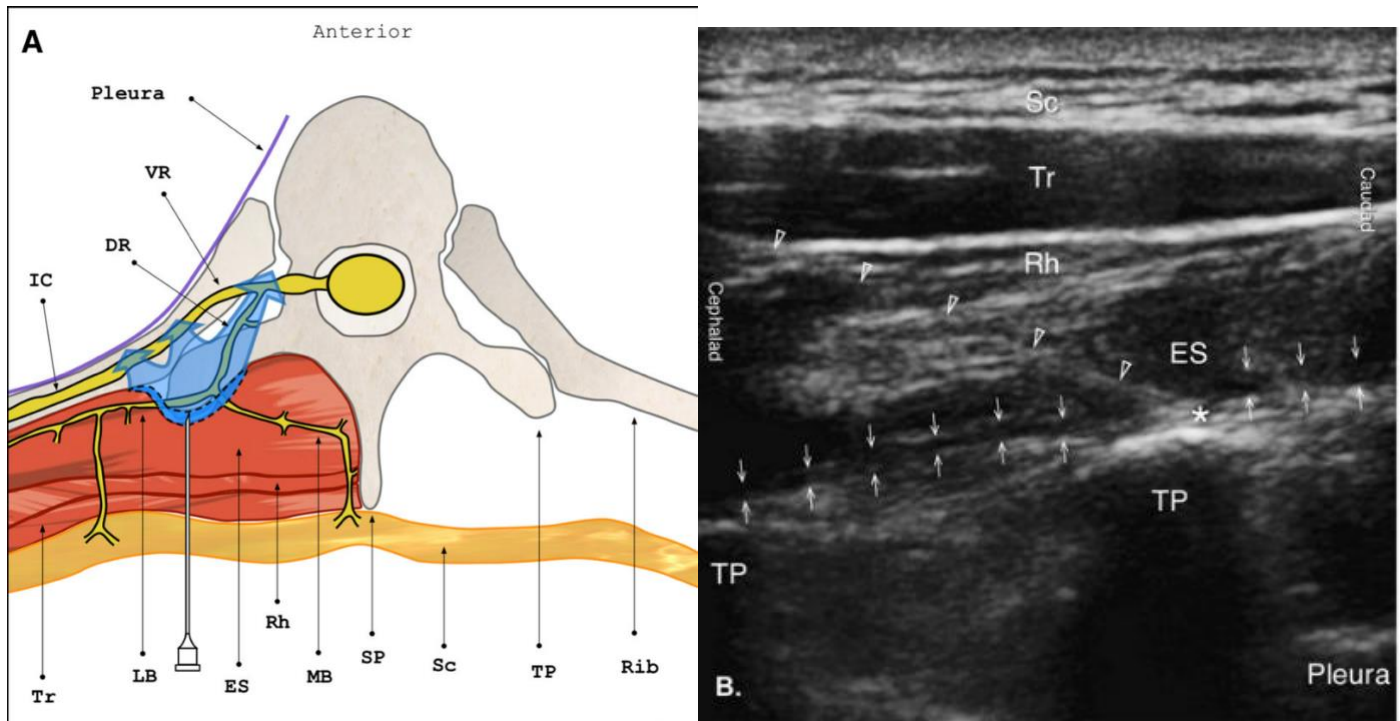
Location:



Second Order: Name a few indications for a TAP block: *abdominal wall abscess, appendicitis, r sided diverticulitis, epiploic appendagitis, hernia, abdominal wall pain*

### 3. Erector Spinae Plane Block (ESPB)

Location:



Second order question:

What is the expected vertebral coverage for an ESPB? *Typically ~3 vertebral levels above and 4 levels below*