

# Lower Extremity Peripheral Nerve Blockade

## Femoral “3-in-1” Block

- Used for anesthesia and/or analgesia of the femur or thigh soft tissue, or for analgesia of the knee. CANNOT be used ALONE for knee anesthesia, as sciatic component is important as well! Consider its use in post-op analgesia after TKA, THA, femur fracture repairs, and soft tissue surgery of anterior thigh.

- Requires nerve stimulator with short needle (about 1.5 inches), 30-40 cc local anesthetic with epinephrine (half that dose if combined with sciatic block). Consider using 0.25% bupivacaine for analgesia, or 2% lidocaine (20 cc) plus 0.5% bupivacaine (20 cc) for anesthesia.

Define inguinal ligament.

Find femoral artery pulsations.

Mark/clean/anesthetize spot 2.5 cm distal to inguinal ligament at femoral artery.

Insert needle perpendicularly to skin just LATERAL to this mark.

Look for appropriate twitch (quadriceps is good; some look at patella) when current below 0.25 mA.

Aspiration with injections!

## Sciatic Block

- Used for anesthesia and/or analgesia of the lower leg and sole of foot. Most of dorsum is also anesthetized, although medial sparing due to saphenous innervation. No thigh analgesia for tourniquet. Combined with femoral 3-in-1 block, adequate for most leg surgeries (not THA, as acetabulum spared).

- Requires nerve stimulator with long needle (4 to 6 inches), 30-40 cc local anesthetic (as above, halved if combined with femoral block).

Supine patient, flexed hip 90° and knee 90° (use table if available).

Mark greater trochanter, ischial tuberosity. Connect the dots, then bisect the line and mark/ clean/ anesthetize just MEDIAL to this spot.

Insert needle perpendicularly to skin. Look for appropriate twitch below 0.25 mA (knee, calf, or ankle.

NOT directly stimulated gluteal muscles!)

Aspiration with injections!

## Lateral Femoral Cutaneous Block

- Used for anesthesia and/or analgesia of the lateral thigh. For example, consider its use when thigh skin grafting, or incision for hip screw.

- Requires medium (3 inch) needle, 7-10 cc local anesthetic with epinephrine.

Identify anterior superior iliac spine.

Mark/clean/anesthetize spot 2.5 cm medial and 2.5 cm inferiorly.

Insert needle through this spot at superior and lateral angle, towards the crest, and inject in fanwise fashion.

If this is to be the primary anesthetic for this part of the procedure, be sure to check adequacy ahead of time and consider marking anesthetized area pre-op.

## Fascia Iliaca Block (learn to love this one...)

- Used for analgesia primarily, although it can allegedly be used alone for DHS. Consider it for post-op analgesia in THA, TKA, ACL, certain arthroscopies, femoral procedures, and skin grafting. The block targets the femoral and LFC nerves primarily.

- Requires 22g, 3.5 inch pencil point spinal needle (or similar substitute), 40 cc local anesthesia (usually 0.25% or less bupivacaine with epinephrine).

Find anterior superior iliac crest, ipsilateral pubic tubercle and connect with line.

Trisect line. Mark/clean/anesthetize spot 1 to 2 cm distal to point where lateral and middle segments of your line meet. Confirm it's not too close to femoral artery.

Pierce skin with 18g sharp needle. Insert spinal needle at 45° angle rostrally through 1<sup>st</sup> pop (fascia lata), then 2<sup>nd</sup> pop (fascia iliaca).

Aspirate and inject.