

**Peripheral Intravenous Catheter Placement**  
**Steve Mitchell, MD**  
**11/1/07**

**\*\*\*\*Notes on giving the talk:**

**Have plan with sharps container, discuss it**

**Explain the two poke approach (through skin, then through vein)**

**Be more thorough on sterile technique**

**Discuss pinching off vein proximal while hooking to extension tubing/blood tubes**

- Anatomy
  - Catheter anatomy
    - Know where your bevel is
    - Size
      - “TKO” 18ga or 20ga
      - Volume needed 14ga or 16ga
  - Vein anatomy
- Preparation
  - Have all supplies easily available at bedside
    - Prep pads, saline flush, tubing, blood tubes, tape/securing device
  - Sterile Technique
    - Wash hands, gloves
    - Prep site
    - Don’t touch the catheter!
    - Sharps Container close by
  - Inject/Apply lidocaine (EMLA - Eutectic Mixture of Local Anesthetics...lidocaine and prilocaine)
- Where do you put it?
  - Start distal, move proximal on subsequent attempts
  - “Y’s
- Maximize size of your target
  - Obstruct it (tourniquet), slap it (histamine release), hang it, heat it
- Holding things in place
  - Anchor the arm/hand
  - Anchor the skin – careful not to flatten vein
  - Hold the catheter between middle finger/thumb
- Entering the vein
  - Be deliberate
  - Bevel up
  - Enter in one motion both (skin/vein) or two (skin then vein)
  - Approx 30-45 degree angle
- Advancing the catheter
  - See flash?
    - Lower angle, keep skin anchored, advance catheter

- Use twisting motion
  - Use assistant if needed
  - Release the TK
- Confirm placement
  - Flush with saline watching for infiltration
  - Drop IV bag and look for blood return
- Draw your blood samples
- Secure it
  - Don't ever let go until secured
  - Pre-torn tape, pre-packaged cover/tape
- Tricks of the trade
  - Thick skin?
    - Nick skin prior to catheter insertion
  - Not sure if you are in vein?
    - Hook to 10cc syringe
    - "Float it" with saline
- Don't do this!
  - Touch the catheter when inserting it
  - Rethread the catheter after adjusting it
  - Be timid
  - Not tell the patient what is going on
  - Forget to release the TK after advancing the catheter