

### **EZ-IO Distal Tibia Insertion Site Identification – Adult**

1. Insertion site is located approximately 3 cm proximal to the most prominent aspect of the medial malleolus
2. Palpate the anterior and posterior borders of the tibia to assure that your insertion site is on the flat center aspect of the bone

### **EZ-IO Distal Tibia Insertion Technique – Adult**

- Use aseptic technique
- Prepare supplies:
  - Prime EZ-Connect Extension Set: unlock clamp, prime set and purge air  
**Adult responsive to pain:** Prime EZ-Connect Extension Set with lidocaine. Note that the priming volume of the EZ-Connect Extension Set is approximately 1.0ml  
**Adult unresponsive to pain:** Prime EZ-Connect Extension Set with normal saline
  - Open EZ-Stabilizer package
- Clean insertion site by per protocol; stabilize the extremity for insertion
- Attach Needle Set to EZ-IO Power Driver and remove Safety Cap from Catheter
- Aim the Needle Set at a 90-degree angle to center of the bone
- Gently press needle through the skin until the tip touches the bone. The 5mm black mark must be visible above the skin prior to insertion
- Squeeze the trigger and apply gentle steady pressure. In the event of Driver failure, disconnect the Power Driver, grasp the Needle Hub by hand and advance into the medullary space while twisting back and forth
- Stabilize hub and remove Driver and Stylet. Place Stylet in an appropriate sharps container
- Place the EZ-Stabilizer Dressing over the Catheter hub
- Attach primed extension set firmly secure to Catheter hub with clamp open
- Remove adhesive from back of EZ-Stabilizer Dressing and apply dressing to skin
- Confirm placement. Flush the EZ-IO Catheter with normal saline (5–10 ml for adults; 2–5 ml for infants/children). May require multiple flushes. Prior to flush, consider 2% preservative-free and epinephrine-free lidocaine IO for patients responsive to pain – follow institutional protocols/policy.

### **Adult Responsive to Pain – Recommended Anesthetic**

#### **Consider using anesthetic for adult patients responsive to pain:**

Review manufacturer’s lidocaine instructions for use prior to administration and observe recommended cautions/contraindications to using 2% preservative free and epinephrine free lidocaine (intravenous lidocaine):

#### **The following recommendations are based on published intraosseous clinical literature:**

1. Confirm lidocaine dose per institutional protocol
2. Prime Extension Set with lidocaine. Note that the priming volume of the EZ-Connect Extension Set is approximately 1.0ml
3. Slowly infuse lidocaine (typically 40 mg) IO over 120 seconds
4. Allow the lidocaine to dwell in IO space 60 seconds
5. Flush with 5–10ml normal saline
6. Slowly administer an additional dose of lidocaine IO (typically 20mg) over 60 seconds. Repeat PRN

Consider systemic pain control for patients not responding to IO lidocaine.

For more information visit [www.EZIOComfort.com](http://www.EZIOComfort.com)

### Adult Unresponsive to Pain

Flush the IO catheter with 5–10 ml of normal saline. If patient develops signs indicating responsiveness to pain, refer to adult recommended anesthetic technique

- Deliver medication and fluids as ordered. Administer medications in same dose, rate, and concentration as given via peripheral IV. For optimal flow infuse with pressure. Verify placement/patency prior to all infusions. Use caution when infusing hypertonic solutions, chemotherapeutic agents, or vesicant drugs
- Stabilize and monitor site and limb for extravasation or other complications; use caution in moving patients
- Document date and time on wristband and place on patient

### EZ-IO Removal Technique

- Remove EZ-Connect
- Lift and remove EZ-Stabilizer adhesive dressing
- Using a sterile luer-lock syringe as a handle, attach to hub of catheter, maintain alignment and rotate clockwise while pulling straight up. Do NOT rock or bend the catheter on removal
- Dispose of catheter with syringe attached in an approved sharps container
- Dress site per institutional protocol/policy

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