



Intraosseous Access

Advanced EMT

Paramedic

PROCEDURE

- ❑ Prepare equipment using sterile technique, attaching the administration set and the extension set to the IV bag
- ❑ Identify intraosseous site: proximal tibia OR proximal humerus
- ❑ Cleanse the site with alcohol
- ❑ Remove the protective cap from the needle and adjust the depth to length which will penetrate the skin, subcutaneous tissue and the bone cortex
- ❑ Assure that the needle's stylet is in place
- ❑ Select one of the following sites:

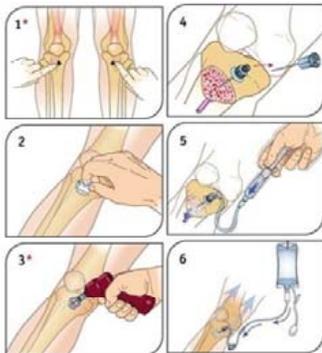
Proximal tibia

- ❑ Ensure patient is supine
- ❑ Locate site 2 cm below the patella and 2 cm medial to the tibial tuberosity
- ❑ Insert the needle slightly angled (10 degrees from vertical) towards the foot

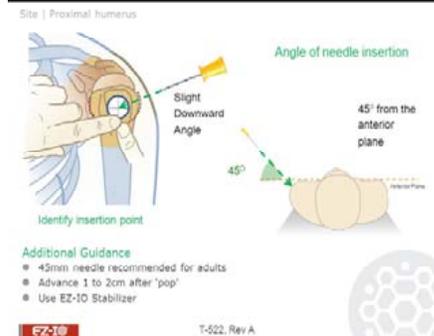
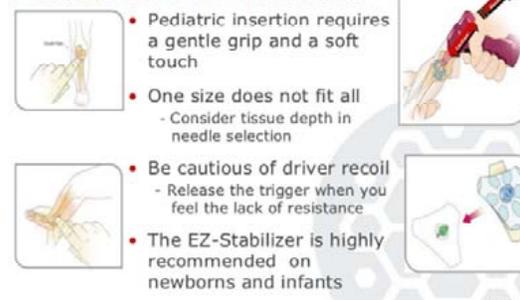
Proximal humerus

- ❑ Ensure patient's arm is at their side with their thumb pointing posteriorly and their palm facing away from their body OR that their hand is resting on their abdomen with the elbow close to the body
- ❑ Slide your thumb up the anterior shaft of the humerus until the greater tubercle (surgical neck) is felt
- ❑ Insert the needle 1 cm above the surgical neck
- ❑ Remove the stylette when needle is confirmed to have entered the marrow cavity
- ❑ Attach a 20 cc syringe and attempt to aspirate (liquid resembling blood may appear in the syringe)
- ❑ Inject 5-10 cc of sterile normal saline
- ❑ If no local infiltration is seen and fluid infuses easily, stabilize the IO needle in place by taping the needle's flange securely to the skin
- ❑ Secure the limb in place to prevent movement and possible dislodgment
- ❑ Connect the extension set to the hub of the IO needle
- ❑ Adjust the flow rate to deliver an appropriate volume of fluid
- ❑ Dispose of any contaminated equipment into an appropriate receptacle

REFERENCE GRAPHICS



Pediatric EZ-IO Insertion



KEY POINTS

- Monitor carefully for infiltration. Extravasation of some medications can cause tissue sloughing
- Consider Lidocaine for local analgesia
- Select appropriate sized needle to ensure needle enters marrow cavity, consider using the bariatric needle for humeral head placement

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