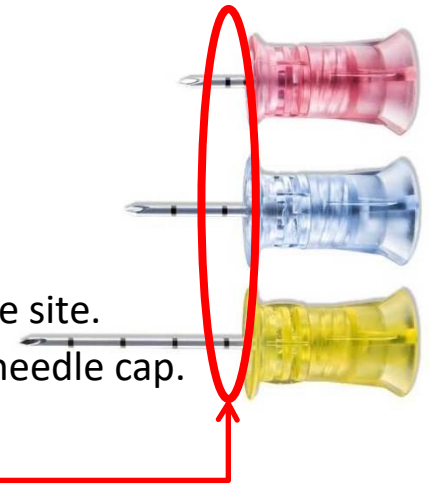


**St Richards,
Worthing and Southlands
Intraosseous access
(see over for insertion sites)**

• **Contra indications:**

- **X** Fracture in target bone
- **X** Infection at area of insertion
- **X** Inability to identify landmarks
- **X** IO access or attempted IO access in target bone within previous 48 hours
- **X** Previous significant orthopaedic procedure at the site, prosthetic limb, or joint
- Choose site, assess tissue depth, choose a suitable needle set and clean the site.
- Prime EZ-Connect with 0.9% saline, connect needle to driver and remove needle cap.
- Stabilise site, gently pierce skin until you feel contact with bone.
- **Before drilling check that at least one black line is visible!**
 - **No:** choose a longer needle or an alternative insertion site.
 - **Yes:** squeeze the trigger and apply **gentle**, consistent, downward pressure until you feel a sudden give.
 - **Do not drive the needle hub into the skin!**
- Stabilise needle hub, remove driver and remove and safely dispose of stylet.
- Secure needle with EZ-Stabilizer and consider need for analgesia* prior to flush.
- Connect primed EZ-Connect and flush with 2-5ml (infant/child) or 5-10ml (adult) of 0.9% saline.
- Correct placement will result in a stable needle and one or more of the following:
 - Bleeding from the needle hub or blood/marrow on aspiration (unlikely in cardiac arrest or profound shock).
 - Flush/pressurised fluids flow without difficulty and without any signs of extravasation.
 - Pharmacological/physiological effects of administered medicines/fluids.
- Write date/time of insertion on EZ-IO wristband and attach to same limb as the IO.



* 2% lignocaine, 0.5 mg/kg over 2 minutes, leave for 1 minute then flush. Consider a second dose of 0.25mg/kg over 1 minute

Intraosseous access: Insertion sites
(see over for guidance)

Adult Proximal tibia

2 cm medial to the tibial tuberosity at a 90° angle to the bone



Infant and child proximal tibia

1 cm medial to the tibial tuberosity at a 90° angle to the bone



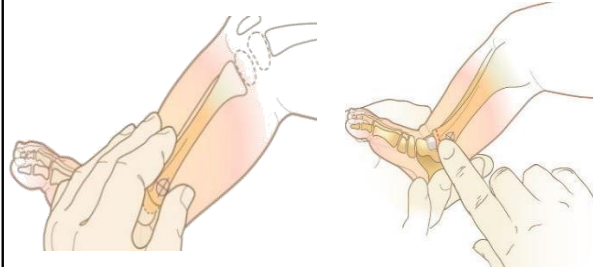
Adult distal tibia

approximately 3 cm proximal to the medial malleolus at a 90° angle to the bone



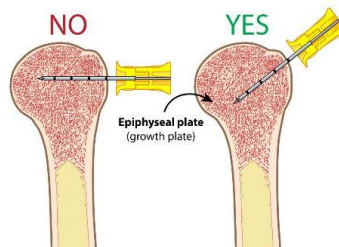
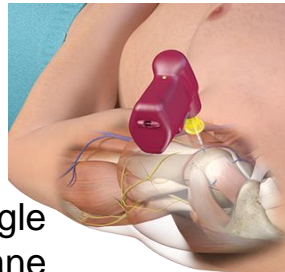
Infant and child distal tibia

1-2 cm proximal to the medial malleolus at a 90° angle to the bone



Proximal humerus

Rotate the arm inwards and insert at a 45° angle to the anterior plane



Infant and child distal femur

approximately 1 cm proximal to the superior border of the patella and approximately 1-2 cm **medial** to midline

