

NIO

Next-Generation Intraosseous Device™



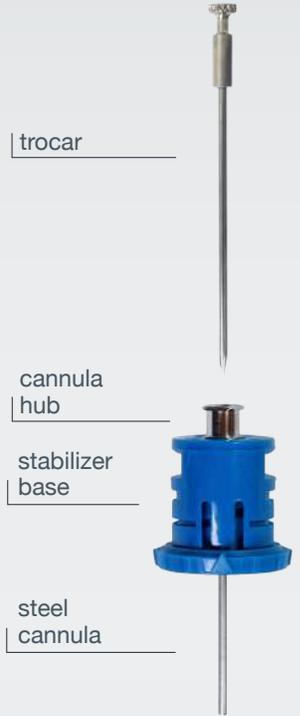
NIO Infant™ Needle
 (2.3kg) to 3 years
 18G / 2.6mm



NIO Pediatric™ Needle (adjustable)
 3-9 years 18G / 14mm
 9-12 years 18G / 18mm



NIO Adult™ Needle
 12 years to adult
 15G / 25mm

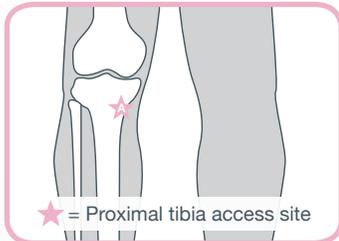


trocar

cannula
hub

stabilizer
base

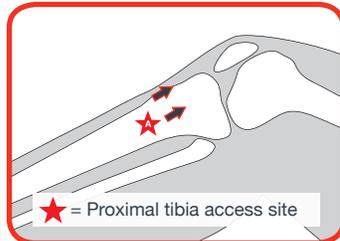
steel
cannula



★ = Proximal tibia access site

NIO Infant: Locating the Proximal Tibia

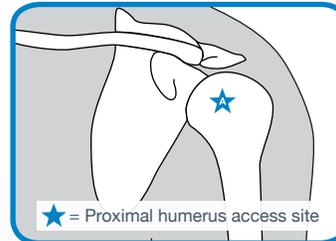
A. Locate tibial tuberosity and extend patient's leg. Insertion site is approx. 1cm medial to the tibial tuberosity, or just below the patella (approx. 1cm or one pinky finger width) and slightly medial (approx. 1cm or one pinky finger width), along the flat aspect of the tibia. Use your non-dominant hand to hold and stabilize the limb. Pinch patient's tibia between your fingers to identify the medial and lateral borders, and locate the center.



★ = Proximal tibia access site

NIO Pediatric: Locating the Proximal Tibia

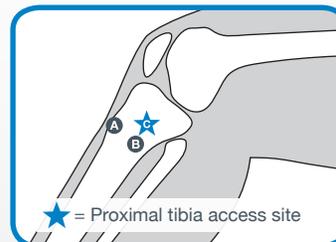
This device features locating arrows which aid in access site landmarking.
A. To operate, place the designated locating arrow (R for right leg, L for left leg) on the prominent aspect of the tibial tuberosity, aligned parallel to the long axis of the tibia. Locating arrows should be pointing up towards the patient's knee.



★ = Proximal humerus access site

NIO Adult: Locating the Proximal Humerus

A. Adduct patient's arm with hand over umbilicus. One hand bisects the arm at the deltoid, while the other hand bisects the axilla anteriorly. Rotate hands inward until the thumbs meet. Palpate the surgical head of the humerus with your thumbs, then move 1cm (0.5in) upward to the greater tubercle.



★ = Proximal tibia access site

NIO Adult: Locating the Proximal Tibia

A: Tibial tuberosity
B: 2cm (1in) medially, towards inner leg
C: 1cm (0.5in) superior, towards knee



Proper adduction.



Proper arm internal rotation (with the thumb towards the buttocks).

IMPERATIVE STEPS FOR SUCCESSFUL DEPLOYMENT

Deploying the NIO is always a two-handed procedure

Deploying the NIO Adult™



1. When removing the NIO from its packaging, be sure to separate the needle guard (plastic piece at base of packaging) from the NIO by pulling it straight out. Dispose of the needle guard. **Never twist off the stabilizer base.**



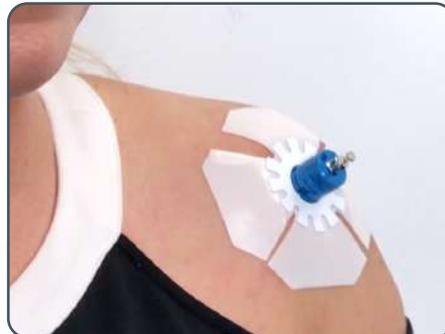
2. Stabilize the NIO prior to deployment. With your non-dominant hand, hold it like a dart, using your index finger and thumb to grasp the textured dots. Fan your other three fingers out against the patient's skin for additional stability. Be sure to hold the device at a 90° angle to the patient's skin. **Never grasp over or around the gray locking tabs.**



3. Unlock the NIO by turning the cap 90° in either direction.



4. **Deploying the NIO is always a two-handed procedure.** Place the palm of your dominant hand over the cap of the NIO and apply downward pressure while your non-dominant hand stabilizes the NIO against the patient's skin. With your dominant hand, maintain downward pressure on the cap and squeeze the trigger wings. After deployment, hold the stabilizer base with your non-dominant hand and lift the body of the NIO off with your dominant hand.



5. Apply the NIO Fixation dressing. Next, hold the stabilizer base and remove the trocar by pulling it up with your fingers or, if desired, by using the keyhole notch (located at the distal end of the NIO).



6. To apply extension tubing with primed tubing, press downward on the Luer hub and half twist to secure tubing to the hub. **Do not attempt to simply twist the tubing onto the hub.**