

PILOT Round Tip™ Needle

Recommended Techniques for First Time Users

Paramedian approach PILOT needle (double needle technique)

1. The patient is placed in a prone position.
2. Fluoroscopy is used to show an AP view of the spine. The targeted disc's endplates are aligned by tilting the c-arm cranial or caudal.
3. Bend the tip of the needle 1cm at an approximately 10° to 20° angle, or keep the needle straight.
4. Use a 3.5" or 5" PILOT needle.
5. The introducer needle punctures the skin approximately 2 cm lateral to the target and is inserted in a slightly lateral to medial trajectory. The introducer needle needs to aim toward the target.
6. The PILOT needle is passed through the introducer needle and directed medially into the anterior superior aspect of the neural foramen. Use lateral fluoroscopy to confirm the depth of the needle.
7. The final confirmation of needle placement is made by injecting contrast (approx. 0.25 - 0.5ml) during lateral and AP fluoroscopic visualization.

Oblique approach PILOT needle (double needle technique)

1. The patient is placed in a prone position.
2. Fluoroscopy is used to show an AP view of the spine. The targeted disc's endplates are aligned by tilting the c-arm cranial or caudal.
3. The beam is then rotated into an oblique view so that the lateral surface of the superior articular process (SAP) bisects the interspace, typically 40°-45° off the AP axis.
4. The introducer needle punctures the skin directly over the target. This insertion point is usually 2-3 cm further lateral than for the paramedian technique. The introducer needle is directed along the axis of the x-ray beam (gun barrel view) towards the superior aspect of the foramen.
5. Keep the PILOT needle straight without bend. For this technique no bend is needed. Use a 5" or 6" PILOT needle. For small adjustments in the trajectory, the PILOT needle without a bend can be steered by putting flexion onto the needle. The tip of the PILOT needle will steer toward the concavity of the flexed needle.
6. Determine depth by rotating the image intensifier to AP, allowing for visualization of medial distance.
7. Confirmation of needle placement is made by injecting contrast (approx. 0.25 - 0.5ml) during lateral and AP fluoroscopic visualization.