

Musculoskeletal Imaging and Intervention Section Imaging Procedures

Foot Injections

PREREQUISITES

- Obtain signed consent.

TECHNIQUE

1. Position foot, ankle, etc. in whatever position allows you to see directly onto the joint of interest. Angling the tube may help.

In general:

Posterior subtalar joint	Lateral approach, just below fibula (Figures 1 through 3)
Sinus tarsi	Lateral approach
Talocalcaneonavicular	AP approach, patient supine, knees bent and feet flat
Calcaneocuboid	Medial oblique position of foot (or angle tube)
Sustentaculum (middle facet)	Medial approach
Naviculocuneiform	AP or medial oblique foot position
1st and 2nd Tarsometatarsals	AP
3rd, 4th, and 5th Tarsometatarsals	Medial oblique foot position
Metatarsophalangeal joints	AP
PIP & DIP joints	AP
Ankle	Needle enters anteriorly (avoid dorsalis pedis artery and extensor tendons). Ankle is positioned lateral on the table or else angle the tube laterally (Figures 4 through 6).

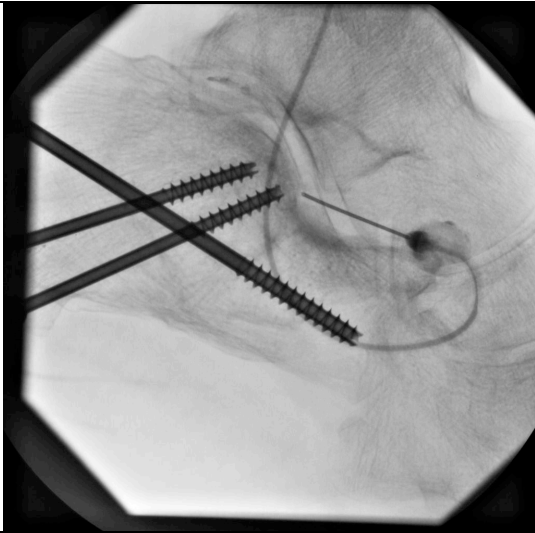


Fig 1: Subtalar approach, lateral.



Fig 2: Subtalar joint injection, AP.

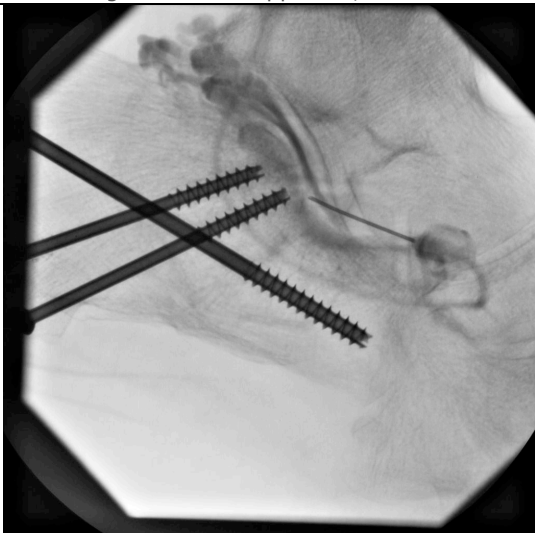


Fig 3: Subtalar joint injection, lateral.



Fig 4: Ankle joint approach, lateral.



Fig 5: Ankle joint injection, AP.



Fig 6: Ankle joint injection, lateral.

2. Mix Omnipaque 300 with 2% lidocaine in a 50/50 solution in a syringe with tubing attached.
3. Numb the skin after alcohol and Betadine prep with a small amount of 1 or 2% pure lidocaine and a 25G needle.
4. Enter the joint with a 25G 1 ½" needle and confirm the position with contrast/anesthetic mixture. If in joint, continue injecting until resistance is met. Many joints in the foot communicate with others and it is necessary to use the lidocaine mixed with contrast for this reason to prove the true extent of the lesion.
5. Take time to walk for a few minutes to see if the pain is partially or completely alleviated and then proceed with the next injection after re-sterilizing the field.
6. Document the patient's response to each injection to include in the report of the procedure.
7. If steroids are to be used (so that it is a therapeutic and not simply a diagnostic procedure) confirm intraarticular position with contrast/lidocaine mixture or just contrast. Then inject a mixture of 0.5 cc of Celestone (3 mg) and 0.5 cc of Bupivacaine of 0.5% MPF.