



Fluoroscopy Protocols

Therapeutic Hip Injections **Fluoro Time Target Limit-1.0**

Scheduling and Prep:

*There is no prep for this exam. *Patient must fill out a contrast questionnaire.

Supplies:

*Arthrogram Tray (add a 20ga spinal needle) *Depo-Medrol or Kenalog-
Per referral *.25% Bupivacaine *Omni 300 contrast

**Per Dr. Dale 7-12-2018: Bilateral joint Injection Request: It is OK to inject 80 mg/ml of Depo-Medrol in bilateral joints (Hip or Knee) at the same time. If a smaller joint is requested for bilateral steroid injections of 80mg/ml; consult an MSK Radiologist prior to exam. It is also OK to inject 40 mg/ml of Kenalog in bilateral joints at the same time. If referral is for 2cc-Depo-Medrol for a hip-consult MSK Radiologist for dosage clearance. 160mg/ml is usually too much for one hip.

AVN (Avascular Necrosis) or Osteonecrosis ALERT

Per Dr. Jarrod Dale, if there is any concern for AVN or osteonecrosis, contact an MSK rad prior to injecting intra-articular steroids. The MSK Rad will determine if there needs to be a doctor-to-doctor conversation and the patient needs to be aware that this can cause acceleration of the bone destruction. In old Osteoarthritis hips or hips that are totally destroyed it is not an issue. The only way we can do this in a patient with AVN is if the surgeon is aware, and the patient is consented that this could make things worse.

Here is recent info on steroid injections

<https://pubs.rsna.org/doi/full/10.1148/radiol.2019190341>

For these patients, if you see a history or diagnosis of osteonecrosis or AVN (Avascular Necrosis) please contact a Musculoskeletal Radiologist prior to injecting.

These cases are not common, and we will do the procedure, but there just needs to be an understanding between the referring physician, the patient and ARA that injecting steroid into a joint with AVN may accelerate the necrosis. If everyone agrees then we can proceed.

Injecting steroids into these joints is used to improve symptoms with the understanding that it will not treat the AVN and may make it worse. It is an injection for those who want to try it before undergoing arthroplasty.

Bottom line, the techs are not expected to diagnose the AVN on the images (but feel free to contact us if there is ever a question on the pre-injection images), but we would like you to

contact us if you see AVN or Osteonecrosis in the patient's history as the reason for the injection.
Please document under "additional comments" which MSK Radiologist you contacted and the outcome.

Room Prep: * Prepare sterile tray *Remove tower drapes *Place an anatomical marker on the Image Intensifier

Spot Scout Images: *AP Hip spot image



Procedure:

- * Patient in supine position with toes pointed medial- use an immobilization Device (sandbag)
- * Localize injection site: superior 1/3 of proximal femoral neck
- *Using standard sterile technique; clean, prepare and anesthetize the skin
- *Place 20ga 3-1/2" needle or appropriate length needle in a vertical approach until the needle reaches the bone
- *Inject enough Omnipaque 300 to verify needle placement, **take an image**
- *Inject ordered type and amount of steroid plus 5cc- .25% Bupivacaine (Marcaine), and 3cc xylocaine not to exceed 12 cc total joint volume.
- ***Replace stylet**, remove needle, clean off Betadine and place a band-aide over the injection site
- *Have the patient gently exercise the hip joint

Spot Images:

- *AP needle / contrast placement
- *AP and Lateral hip – post injection.

*These are the minimum images needed to demonstrate the proper anatomy for this Exam. When deemed necessary, more images may be taken to demonstrate pathology or For other reasons.

*Take care to minimize patient and technologist exposure.

Reviewed and Revised January 4, 2022

Reviewed January 23, 2024