

Musculoskeletal Imaging and Intervention Section Imaging Procedures

Triple Compartment Wrist Arthrography with Diluted Contrast Medium

PREREQUISITES

Preliminary plain films of the wrist, AP-lateral-obliques.

TECHNIQUE – Arthrography

1. 25G 5" needle.
2. Contrast: solution 1:5 contrast agent and 1% lidocaine, 1 mL diatrizoate sodium 300 mg iodine/mL and 4 mL and 1% lidocaine.
3. Injection: 3-5 mL.
4. Inject under direct fluoroscopic visualization with video recording or spot films.
5. Remove the needle. Patient actively flexes and extends wrist.
6. Obtain overhead films. AP-lateral-Obliques.

TECHNIQUE – Radiocarpal Joint

7. Inject the diluted contrast between the radius and the middle of the scaphoid (See Figures 1-3 below).
8. Follow steps 1-6.
9. Proceed to step 10.



Fig 1: Approach, AP.



Fig 2: Contrast injection early, AP.



Fig 3: Contrast Injection late, AP.

TECHNIQUE – If TFC Tear

10. After 15 minutes inject full strength contrast agent into the mid-carpal joint.
11. Repeat steps 3-6.
12. STOP

TECHNIQUE – No TFC Tear

13. After 15 minutes inject full strength agent into the distal radio-ulnar joint.
14. Repeat steps 3-6.
15. Proceed to step 16.

TECHNIQUE – If No Leakage

16. Immediately inject full strength contrast agent into the mid-carpal joint.
17. Repeat steps 3-6.
18. STOP

TECHNIQUE – If Leakage

19. STOP

PATIENT POST ARTHROGRAPHY INSTRUCTIONS

Patient instructions are included in the "[Post Arthrography Patient Instruction Sheet.](#)"