

Anatomy: **UPPER EXTREMITY**  
 Sub-Anatomy: **Rheumatology Elbow- 3T Ortho**

- Exams **ORDERABLE- Elbow**  
 - Routine  
 Coil: **Flex coil**

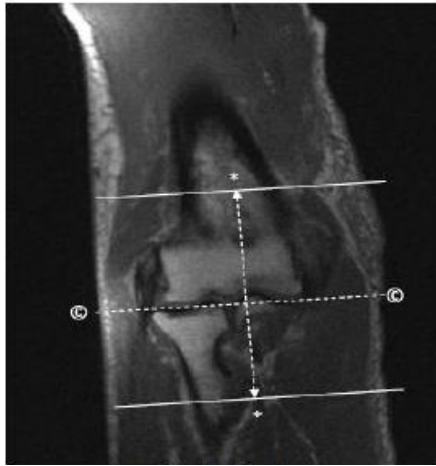
| SEQUENCE - BASICS   |                 |                      |                |      |     |         |                 |      |       |     |                  |              |                 |                    |
|---------------------|-----------------|----------------------|----------------|------|-----|---------|-----------------|------|-------|-----|------------------|--------------|-----------------|--------------------|
| PLANE               | SEQ             | Slice thickness (mm) | Misc / Comment | MT X | Gap | Sc an % | Voxel size (mm) | TR   | TE    | N S | ETL Turbo Factor | Phase Encode | Scan TIME (min) | Pixel Shift BW-kHz |
| <b>ROUTINE</b>      |                 |                      |                |      |     |         |                 |      |       |     |                  |              |                 |                    |
|                     | 3 plane scout   |                      | Only use GRE   |      |     |         |                 |      |       |     |                  |              |                 |                    |
| 1                   | Sag fs PD       | 3.5                  |                |      | 10% |         | 0.4x0.5         | 3000 | 35-40 |     |                  |              |                 |                    |
| 2                   | Cor fs PD       | 3.5                  |                |      | 10% |         | 0.4x0.5         | 3000 | 35-40 |     |                  |              |                 |                    |
| 3                   | Ax fsPD         | 3.5                  |                |      | 10% |         | 0.4x0.5         | 3000 | 35-40 |     |                  |              |                 |                    |
| 4                   | Cor PD          | 3.5                  |                |      | 10% |         | 0.4x0.5         | 3000 | 40-45 |     |                  |              |                 |                    |
| 5                   | Axial PD        | 3.5                  |                |      | 10% |         | 0.4x0.5         | 3000 | 40-45 |     |                  |              |                 |                    |
| 6                   | Axial DWI       | 4/0                  | 7 b values     |      |     |         |                 |      |       |     |                  |              |                 |                    |
| 7                   | Cor 3D PD       | 0.65                 |                |      | 0   |         |                 |      |       |     |                  |              |                 |                    |
| 8                   | Sag mDIXON pre  | 1.0                  | iso            |      | 3D  |         | 1x1x1           |      |       |     |                  |              |                 |                    |
| 9                   | Cor 4D TRAKS    |                      | 25 dynamic     |      |     |         |                 |      |       |     |                  |              |                 |                    |
| 10                  | Sag mDIXON post | 1.0                  | iso            |      | 3D  |         | 1x1x1           |      |       |     |                  |              |                 |                    |
| <b>↓ OPTIONAL ↓</b> |                 |                      |                |      |     |         |                 |      |       |     |                  |              |                 |                    |
|                     | STIR            | 3-4                  | Failed fat sat |      | 10% |         | 0.4x05          | 3000 |       |     |                  |              |                 |                    |

**Instructions: FOV and Coverage-** Always try to do in superman position with elbow in the center of FOV. On coronal, cover from skin to skin. On axials, cover humeral meta-diaphyseal junction to just below radial tuberosity. On sagittals, cover from medial to common flexor tendon and lateral to common extensor tendon.

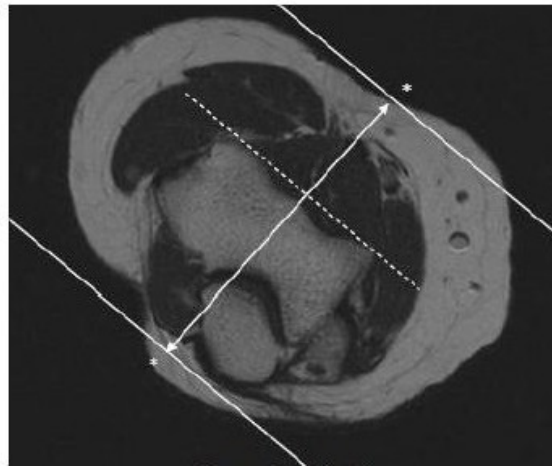
**Large subject:** Increase voxel-0.7-0.75 mm, use mFlex coil, if problem with SNR or wrap, etc- call OPB/PMH for remote monitoring help.

**Others-** Always put marker at the site of most pain, injury or swelling. If motion observed, stop the scan, instruct patient to lay still and repeat the sequence.

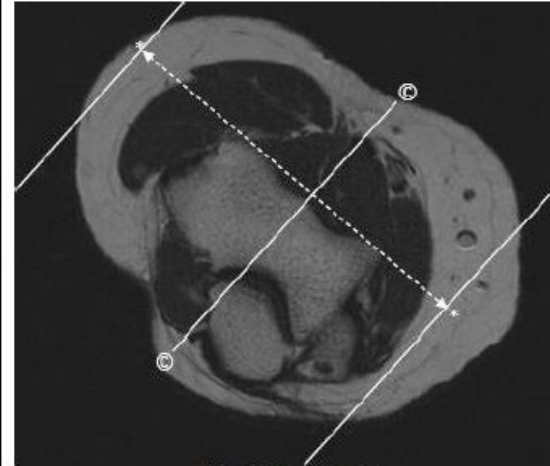
**4D TRAKS use weight based dose and start injection and scan at the same time. Make sure there is 25 dynamic scans. 2cc/sec**



Axial- Fig.1



Coronal- Fig.2



Sagittal- Fig.3