

## MRI ELBOW PROTOCOL

**Localizer** 3 - plane scout localizer

Plane	Sequence	Fat Sat	SLT / SP	**FOV	Notes
Axial	T1			small FOV	Cover more of the distal humerus if indication is for distal biceps tear
Axial	PD	Y		small FOV	
Coronal	PD	Y		14-16 cm	Use larger FOV to cover distal biceps if indication is distal biceps tear
Coronal	STIR			14-16 cm	
Sagittal	T2	Y		14-16 cm	

**Add Coronal FABS view for biceps - when suspected for distal biceps tendon pathology**

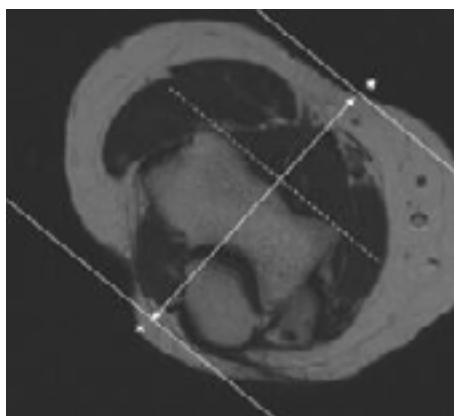
**Localizer** axial loc and 3 - plane scout localizer

Coronal	PD	Y		FOV to visualize distal biceps tendon	
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## POSITIONING AND PLANES

### Patient Position - ROUTINE ELBOW

- Supine (or if a large patient in the Superman position)
- Try to have elbow fully extended
- Try to have hand palm up
- Elevate elbow with a sponge to isocenter (if supine)
- Sponge and strap elbow in place if needed to reduce motion artifact



### Coronal imaging

- Use axial LOC to angle parallel to anterior portions of the capitellum and trochlea (or parallel to humeral epicondyles)
- Use sagittal LOC to angle parallel to humerus/radius/ulnar plane, but closer to plane of radius if minimally flexed (if markedly flexed elbow, then angle between anterior humerus and the radius)
- Cover from back of the olecranon to at least 1 slice anterior to radial head

## POSITIONING AND PLANES



### Axial imaging

- Perpendicular to Coronal
- Use COR to angle parallel to elbow joint (parallel to capitellum and trochlea)
- Cover from 1 slice distal to radial tuberosity up as far as the slices go

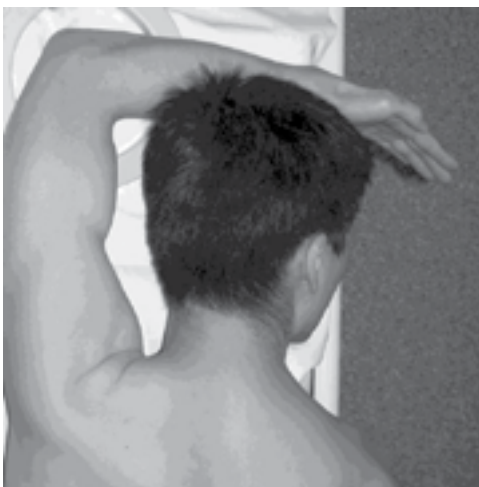


### Sagittal imaging

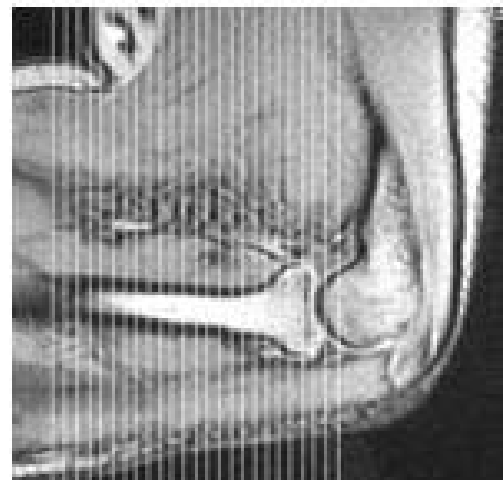
- Perpendicular to both Coronal and Axial sequences
- Cover 1 slice outside of both humeral epicondyles

## FABS SEQUENCE POSITIONING AND PLANNING

- Reposition with arm abducted over head, flexed to 90 degrees (try to limit hyperflexion), and supinated (thumb up)
- Use shoulder coil and position around lower humerus, make sure to cover the radial tuberosity and cover up to approx. the mid humerus
- Axial LOC and then a 3 Plane LOC and get a good Sagittal LOC
- Angle Parallel to humeral shaft
- Obtain slices from outside of radial tuberosity and up to and including the humerus



Example patient positioning



FABS Coronal slice orientation from sagittal scout image