

Shoulder MRI Guide

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Positioning

- Spine Coil
- Side of interest down
- Wedge under sternum
- Pull side up forelimb caudally
- Pull side down forelimb cranially until humerus is roughly perpendicular to sternum
 - The idea is to get the forelimb in a relatively neutral position
- *****PALPATE SHOULDER JOINT*****
- *****NOTE WHICH COILS THE JOINT IS OVER*****
- 34 or 345 etc etc

First steps before scanning

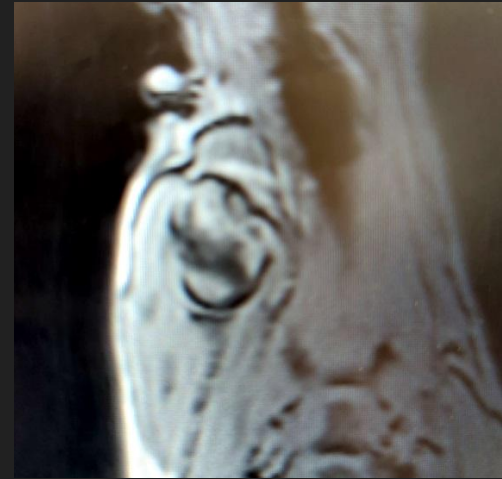
1. Register patient
2. Adjust patient position to be either Left or Right decubitus, depending on side of interest
3. Open first scout image
4. Change spine coil selection to match the coils you noted inside the room
5. APPLY ALL
6. When in doubt, choose more coils

Second scout

1. Open scout
2. Maximize image
3. Click on 'report cursor'
4. Scroll through your images to find the shoulder joint on a transverse or a dorsal
5. Place cursor within the shoulder joint
6. Record the coordinates
 - a. Something like L30 P10 S20 etc
 - b. Will be different every patient
7. Input these coordinates with letters into the corresponding start/end points
8. Save, prep, scan

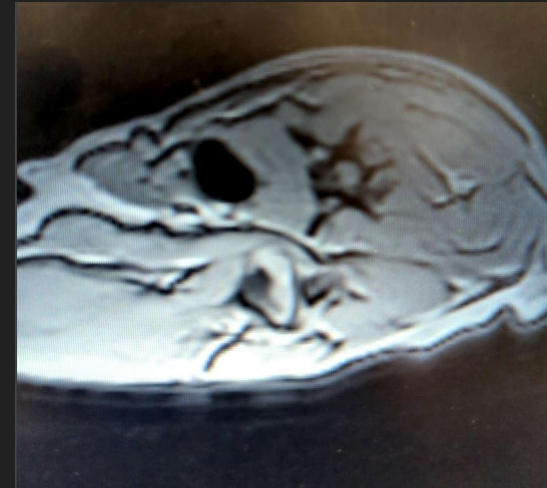
Axial Scout:

- Looks like dorsal spine



Dorsal Scout:

- Looks like axial spine



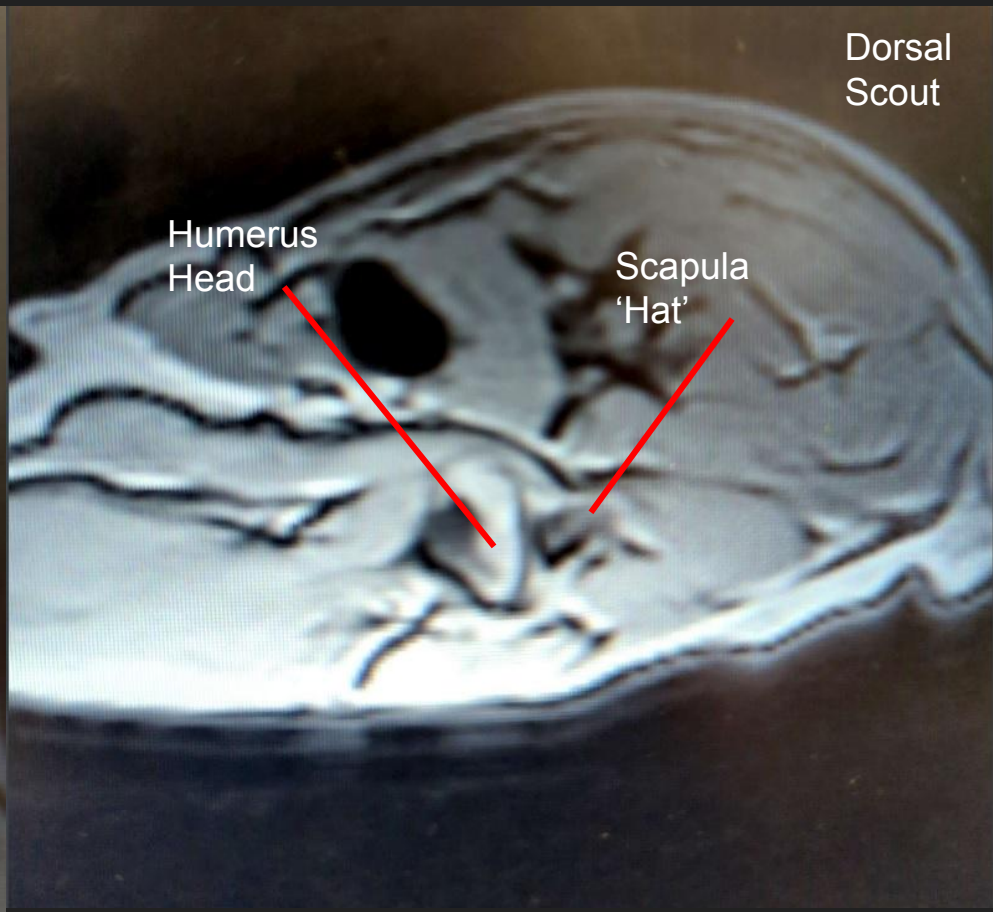
What to look for on second scout

Axial
Scout



Bicep
Tendon

Dorsal
Scout



Humerus
Head

Scapula
'Hat'

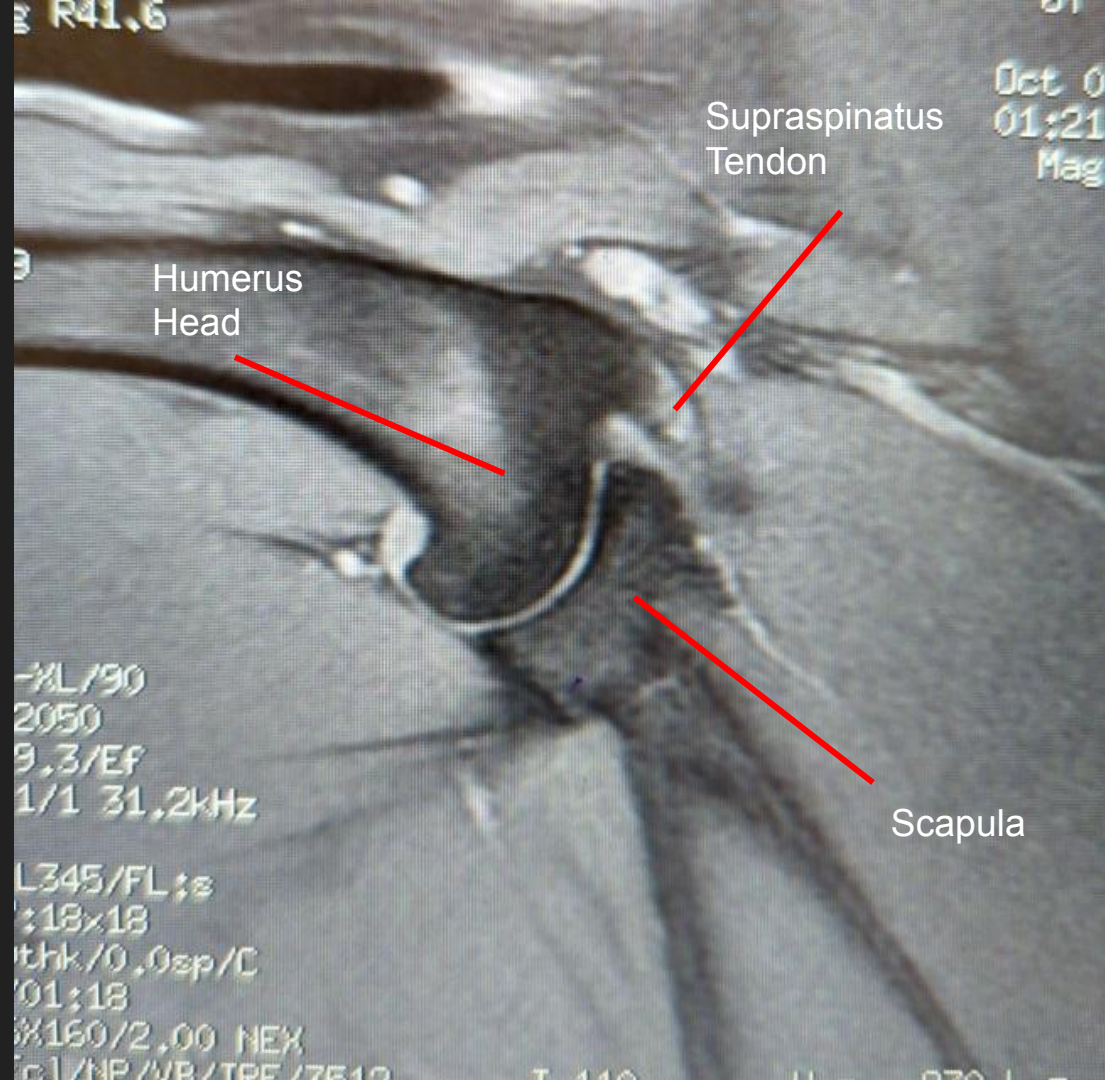
Planning Sag PD Loc

1. Click on the center of the joint to drop your slice
2. Use the blue circle to rotate slice so it cuts through the middle of the head and the 'hat'
3. Drag the square to add slices to cover from blue line to red line
4. Adjust TR to fit all slices in



What to look for on Sag PD Loc

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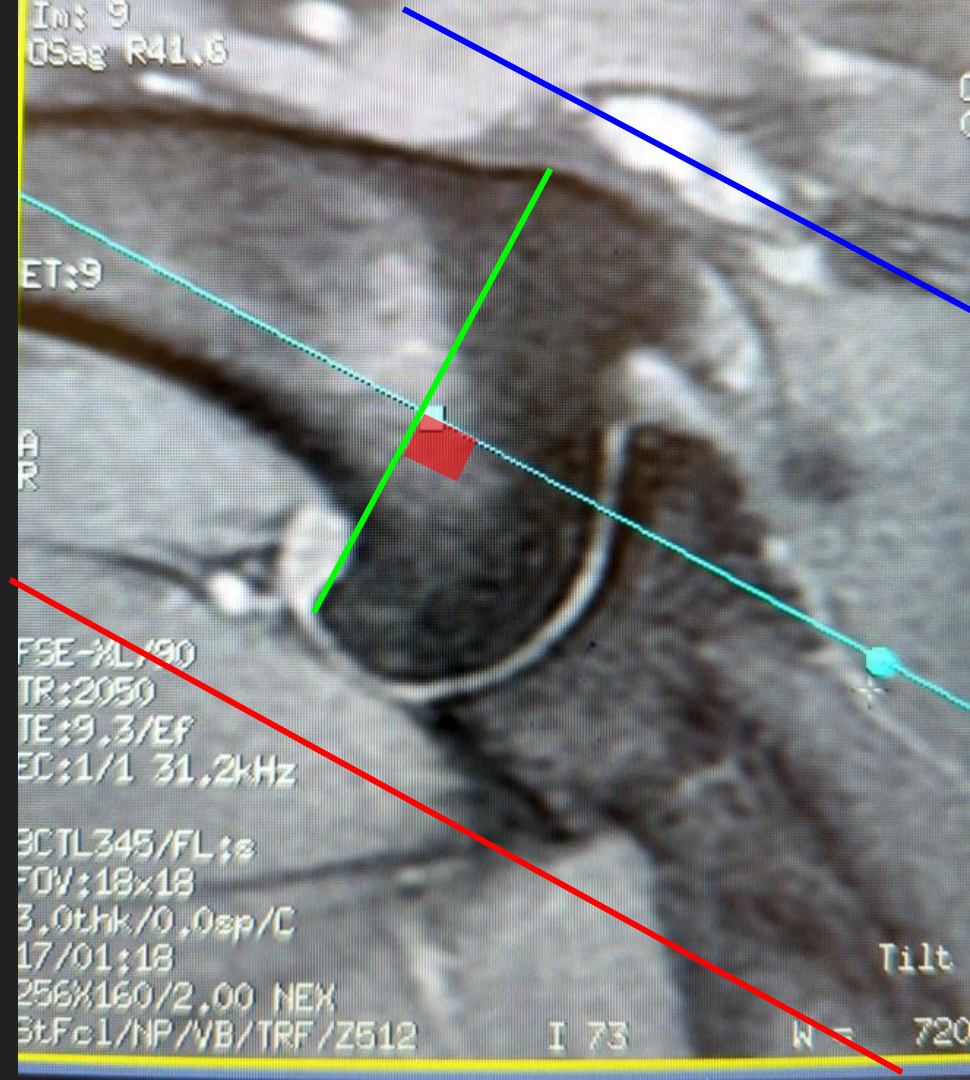
Planning axial on Sag PD Loc

1. Scroll through slices on Sag PD Loc
2. Locate a slice kind of mid joint where you can see the supraspinatus tendon
 - a. The tendon is usually bright, and will attach to the cranial bump on the humeral head
3. Click in the middle of the humeral head, use blue circles to rotate slice to that it is perpendicular to the tendon over the joint
4. Image a 90 degree angle between the tendon and your slice (red box)
5. Angle will vary with forelimb position and patient anatomy
6. Drag square to add slices, cover from blue line to red line. Adjust TR

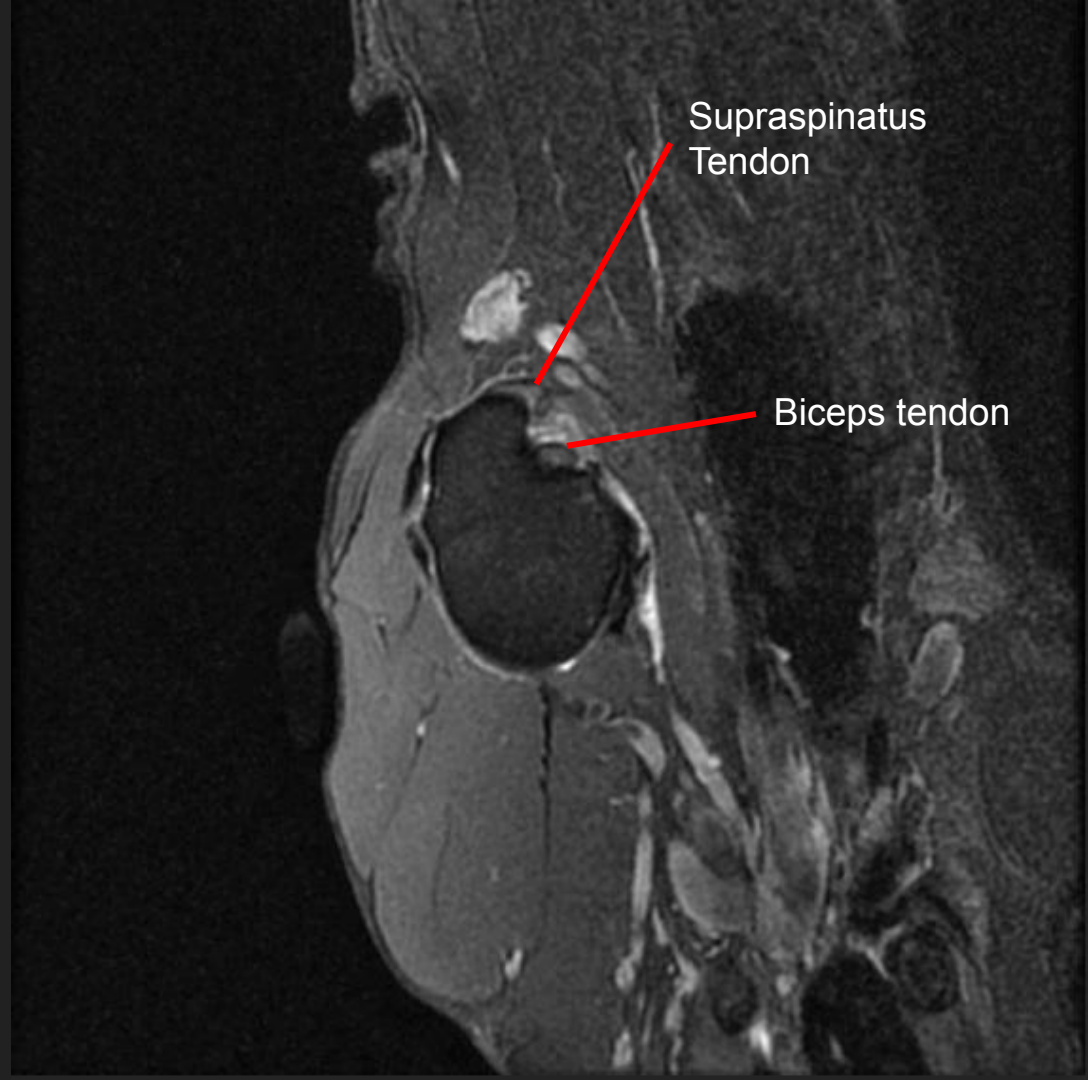


Planning Dorsal on Sag PD Loc

1. Scroll to a middle slice in the joint
2. Click in the middle on the joint to drop slices
3. Imagine a line connecting the cranial humerus bump and the tip of the caudal bump on the humerus (green line)
4. Use the blue circles to rotate your slice to be perpendicular to the imagined line (green)
5. Use square to add slices to cover from blue line to red line
6. Adjust TR



What to look for on Axial images



What to look for on Dorsal images

