

Bony Pelvis Osteo/Abscess

****If ordered as MR Hip w & w/o (Rt or Lt)—OK to keep it. Message reading room so they read it out correctly.**

- 3 Pl loc
- Cor T1
- Cor FSTIR
- Ax T1 Iliac Crest through lesser trochanter
- Ax T2 dk fat
- Sag T1
- Sag FSTIR

FOR TUMOR—PRE AX T1 FAT (1 nex-ok if grainy)

- +c Cor T1 dk fat
- +c Sag T1 dk fat
- +c Ax T1 dk fat

►Metal/poor fat sat: for Ax T2 FAT substitute STIR or T2 No FAT. For T1 FAT substitute T1 No FAT. Only do IDEAL if requested.

Request:
MRI wo/w
Bony Pelvis

Contrast:
Vueway
0.05mmol/kg
Max 10

Low eGFR inpatient
Dose: No Change

Bony Pelvis Tumor (Power Injection)

- 3 Pl loc
- Cor T1
- Cor FSTIR
- Ax T2 Fat Iliac Crest through lesser trochanter
- Ax T1
- Sag FSTIR
- Ax T1 Lava-Flex Pre (send in-phase and Out of Phase to SOURCE)
- **OK to increase FOV to cover Skin to Skin
- After Pre—ensure to Manual prescan and select done, this will ensure subtractions are accurate
- Ax T1 Lava-Flex 2min
- Cor T1 Lava-Flex
- Sag T1 Lava-Flex
- +c Ax T1 Fat

****Subtract Pre Ax Lava-Flex from Post Ax Lava Flex—send to ALL STORE**

►Metal: If Tumor is adjacent to metal implant, send Pre Ax T1 Lava-Flex and call RR to see if they want to do T1 Post without FS instead of 3d Flex with subtraction (T1 post-T1 pre). Ax T2 FAT substitute STIR or T2 No FAT. For T1 FAT substitute T1 Lava-Flex from Tumor protocol

Request:
MRI wo/w
Bony Pelvis

If ordered as MR Hip w & w/o (Rt or Lt)—OK to keep it. Add study note so they read it out correctly

POWER INJECTION
Inject @ 2ml/sec

Contrast:
Vueway 0.05mmol/kg
Max 10

Nonspecific Hip Pain (Lt, Rt or Bilat) or Nonspecific Pelvic Pain (Lt, Rt or Bilat) Synovitis (w/wo contrast)

****If ordered as an individual Hip, always run the Cor and Sag of that hip**

****If ordered as Bony Pelvis, rads should specify which hip to cover or to run bilateral Sag of each Hip.**

- 3 Pl Loc
- Cor T1 (Large FOV [32-40+] -Bony Pelvis 2cm lateral to trochanters5/2.5) -2 slices posterior to sacrum and anterior to pubis symphysis
- Cor STIR same coverage as Cor T1
- Ax T1 (Large FOV [32-40]) to include whole bony pelvis 5/2.5 Iliac Crest through lesser trochanter
- Ax T2 dk fat same coverage as Ax T1 (Metal: Ax STIR)

Unilateral hip (Affected hip only):

- Sag PD cl fat (4/1 18 FOV) Hip to 2cm lateral to greater troch
- Cor T2 cl fat (4/1 20+ FOV) (Metal: Cor STIR)

Bilateral hips:

- Lt Hip Sag PD cl fat (4/1) Hip to 2cm lateral to gr troch
- Rt Hip Sag PD cl fat (4/1) Hip to 2cm lateral to gr troch

Synovitis:

***include unilat hip views above even if protocolled bilateral:**

Large FOV (Cor & Ax) [32-40+] thinner slices 4/1 or 4/5

- PRE Ax T1 Fat (Both Hips)
- 3cm above joint to below lesser troch (no fat if metal present)
- +c Coronal T1 dk fat through hips, not full A/P bony pelvis coverage (no fat if metal present)
- +c Axial T1 dk fat (both hips)
- 3cm above joint to below lesser troch (no fat if metal present)

Request:
MRI Bony Pelvis wo, MRI Hip wo (Rt or Lt) or w/wo if contrast

Optional Contrast:
Vueway 0.05mmol/kg
Max 10

Low eGFR inpatient
Dose: No Change

HIP Prosthesis

Needs to be scanned on UH 1.5T, EMH1, OSP2, Protocol is on 3T 750w and 750, but scan there ONLY if there is no other option.

MAVRIC has to be scanned!! Should not be scheduled at RP!

****MARK TOP & BOTTOM OF SCAR**

****Complete A/P coverage & skin to skin**

- 3 Pl loc
- Ax T1 Bilateral Hips
- Ax STIR Bilateral Hips
- Cor PD MAVRIC Bilateral Hips
- Cor fluid MAVRIC Bilateral Hips
- Sag FSTIR Affected hip

****If patient has bilateral implants, run Sag FSTIR of both hips****

---Optional Contrast---

- +c Cor T1 nofat Bilat Hips
- +c Ax T1 nofat Bilat Hips

Request:
MRI Bony Pelvis wo or MRI Bony Pelvis w/wo

Contrast:
Vueway 0.05mmol/kg
Max 10

Low eGFR inpatient Dose: No Change

Rapid ED Hip FX

- 3 Pl Loc
- Cor T1 (Large FOV [32-40+] Bony Pelvis 2cm lateral to trochanters 5/2.5) -2 slices posterior to sacrum and anterior to pubis symphysis
- Cor STIR same coverage as Cor T1
- Ax T2 dk fat (Metal: Ax STIR)

►above sacrum to below lesser trochanter (don't overscan)

Request:
MRI Bony Pelvis wo, MRI Hip wo (Rt or Lt)

Hip Tumor

****Try to get one slice down middle of Femur**

****Mark scar, lump, or mass and center FOV on ROI. No need to cover a joint. Only cover area of interest.**

****Don't need Skin to Skin on both Cor and Sag.**

****Must cover all pathology (OK to increase FOV to cover pathology).**

- 3 Pl loc
- Cor T1
- Cor FSTIR
- Sag T2 Fat
- Ax T2 Fat
- Ax T1
- Ax T1 Lava-Flex Pre (In and Out of Phase to SOURCE)
- After Pre—ensure to Manual prescan and select done, this will ensure subtractions are accurate!
- Ax T1 Lava-Flex 2 min
- Cor T1 Lava-Flex
- Sag T1 Lava-Flex
- +c Ax T1 Fat

****Subtract Pre Ax Lava-Flex from Post Ax Lava Flex—send to ALL STORE**

►Metal: If Tumor is adjacent to metal implant, send Pre Ax T1 Lava-Flex and call RR to see if they want to do T1 Post without FS instead of 3d Flex with subtraction (T1 post-T1 pre). Ax T2 FAT substitute STIR or T2 No FAT.

Request:
MRI Hip w/wo

POWER INJECTION
Inject @ 2ml/sec

Contrast:
Vueway 0.05mmol/kg
Max 10

Low eGFR inpatient Dose: No Change

HIP: Labrum Scope (3T, OSP2, MR2, MR3, EMH1 and Eastpark) / Hip Preservation

- 3 Pl Loc
- Cor T1
- Cor T2 cl fat
- Sag 3D MERGE – cover hip joint
- Sag PD cl fat (1.5T 4/4 3T 3/2 18FOV)
- Ax T1 (4/1 22 fov)
- Ax T2 cl fat
- Oblique Ax PD cl fat (3/3 22 fov)

****Affected Hip Only****

Center at lesser troch

Reformat: 1.5 mm in all 3 plane

If at 1.5T, Sag 3d SPGR IDEAL reformat water series

ALI: Water series & reformats

ALI_SOURCE: Remaining source images

Center on joint Hip to 2cm lateral to greater troch

3cm above joint to below lesser troch

Parallel to fem neck

*****Scan 9-11 FOR HIP PRESERVATION**

****Webex the CT 3d Room with MR# and patient name and Rt or Lt side**

- Ax T1 Lava-Flex—include bilateral Hips ASIS through lesser trochanter
- Ax T1—bilateral hips ASIS through lesser trochanter
- 3pl loc—Knees GE Body Coil—(do not move coil, the scanner's body coil is utilized as the Transmit and receive coil)
- Ax T1 GE Body Coil- Knees Above Patella to Fibular Head (do not move coil, the scanner's body coil is utilized as the Transmit and receive coil)

Request:
MRI Hip wo

****IMAGES****

For Hip Preservation: Add an "3d Reconstruction from prior data set" order. Group Report for Powerscribe and MERGE exams in PACS.

SPORTS HERNIA/OSTEITIS PUBIS/PUBALGIA

- 3 Pl loc
- Cor STIR (Large FOV [32-40+] Bony Pelvis 2cm lateral to trochanters 5/2.5) 2 slices posterior to sacrum and anterior to pubis symphysis
- Sag T2 cl fat (24 fov 4/1) GRx on Ax loc
- Strt Ax T2 fat (20 fov 4/1) GRx on Cor loc
- Obl Cor T1 (24 fov 4/1)
- Obl Cor FSTIR (24 fov 4/1)
- Obl Ax T2 dk fat (20 fov 4/1) GRx on Sag.
- Obl Ax PD (20 fov 4/1) Copy coverage obl Ax T2

►through ischial tuberosities

►above acetab thru symphysis

►Scan parallel to symphysis, from ant symphysis through ischial tuberosities

►parallel to ilio-pubic cortex

►Anterior symph through ischial tuberosities

Request:
MRI Bony Pelvis wo

****IMAGES***

S/I JOINTS for SACROILIITIS

Contrast: Vueway 0.05mmol/kg Max 10

Peds under 2yo Multihance 0.1 mmol/kg Max 20 mL

- 3 Pl loc
- Obl Cor T1 (FOV 22 3/3) posterior just behind L5-disc through 3cm anterior to Sacrum -15 slices.
- Obl Cor FSTIR
- Obl Ax T1 (FOV 22 4/1.5) L5 through Sacrum
- Obl Ax T2 dk fat
- Obl Cor T1 Lava-Flex
- Obl Cor oZTeo Bone (if Available)
- +c Obl Cor T1 dk fat Copy coverage from pre
- +c Obl Ax T1 dk fat Copy coverage from pre

►Angle parallel to sacrum along the posterior cortex of S2

►GRx on Obl Cor

---optional contrast---

Request:
MRI Bony Pelvis wo or MRI Bony Pelvis w & wo

****IMAGES****

Routine S1 Joint imaging can be wo contrast. Scan as ordered, Rads can change to "w/o series only" for a Bony Pelvis, some indication may require contrast

Low eGFR inpatient Dose: No Change

Coccydynia (wo) / Sacrococcygeal Osteomyelitis (w/wo)

- 3 Pl loc
- Obl Cor T1 (FOV 22 4/0.5) Posterior spinal canal at L5-S1 through coccyx
- Obl Cor FSTIR
- Obl Ax T1 (FOV 22 4/1.5) L5 through coccyx
- Obl Ax T2 dk fat
- Sag T1 (FOV 22 2/2) Coccyx
- Sag T2 dk fat
- +c Obl Cor T1 dk fat Copy Coverage from pre
- +c Obl Ax T1 dk fat Copy Coverage from pre
- +c Sag T1 dk fat Copy Coverage from pre

Sacrococcygeal Osteomyelitis--(if for sacral + ischial osteomyelitis use Osteo/Abscess Bony Pelvis protocol for full pelvis FOV sequences)

Request:
MRI Bony Pelvis wo or MRI Bony Pelvis w & wo

Contrast:
Vueway 0.05mmol/kg
Max 10

Low eGFR inpatient Dose: No Change

MSK TIPS:

- SHIM all Fat sat scans!!
- Patients should have their hands on their chest for bony pelvis imaging. Hands will wrap on MAVRIC and single hip view

Include in Study notes: Date of injury? previous surgery?

Coil:

8 Ch Cardiac

32 Ch Torso

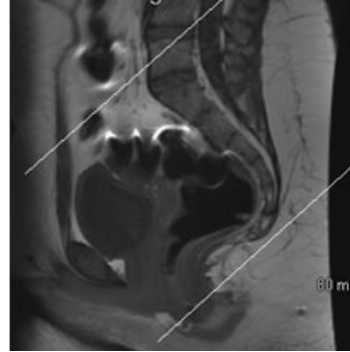
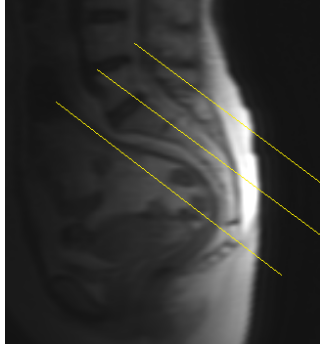
GEMS: 30 SMALL

Only use 32 body array if x-large patient

Set up for S/I Joint and Coccydynia protocol.

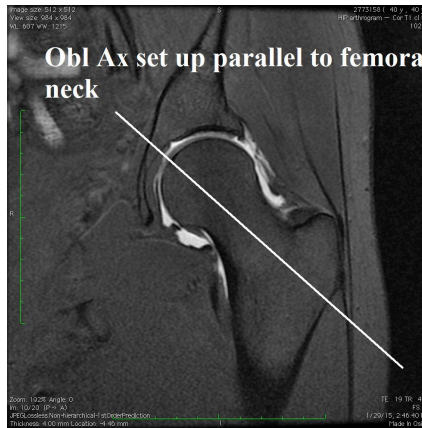
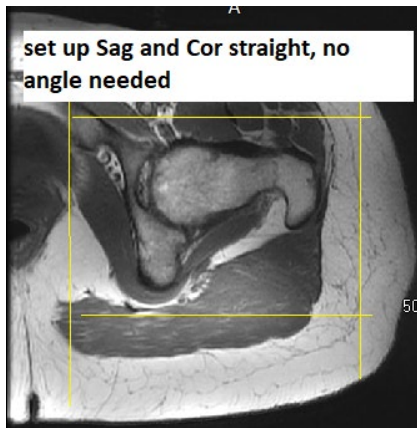
Angle parallel to sacrum along the posterior cortex of S2

S/I joint only goes through Sacrum, below picture shows Coccydynia



****Back to Protocol****

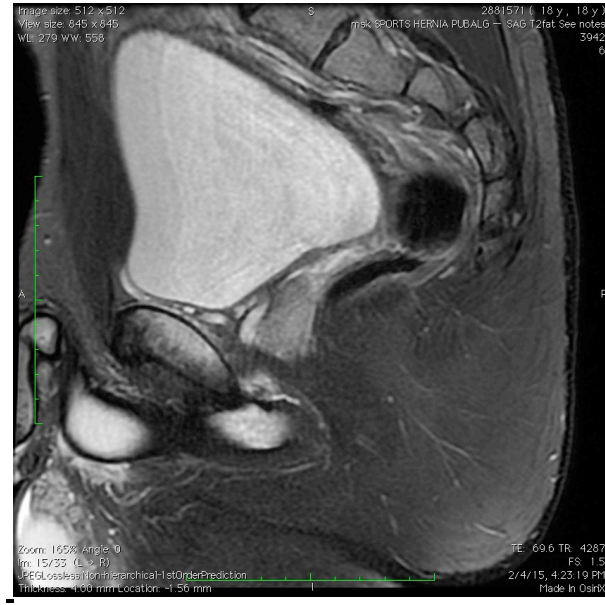
Hip Labrum Scope set up:



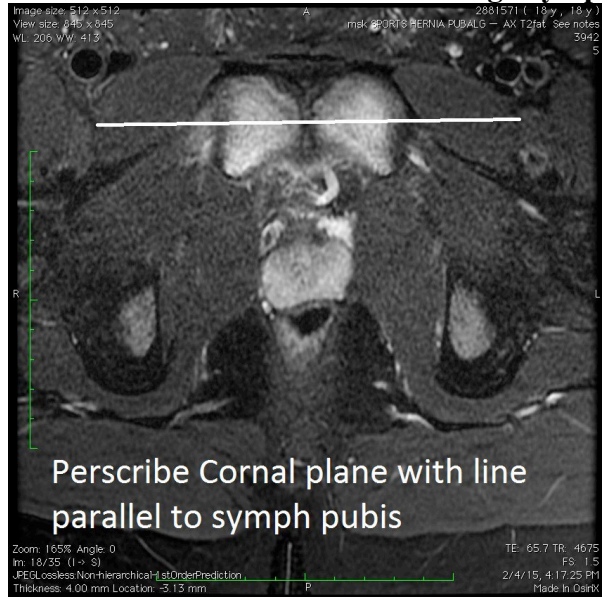
SPORTS HERNIA/OSTEITIS PUBIS/PUBALGIA:

****Back to Protocol****

Sagittal: should look like this (Cover through ischial tuberosities):



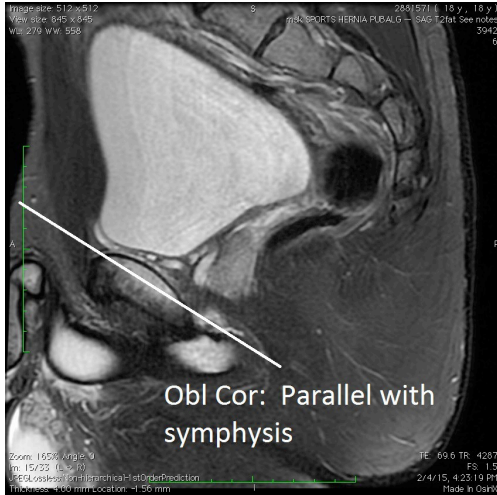
Straight Axial should look like this
Cover from above Acetabulum through symph:



Obl Cor: Cover from ant symphysis through ischial tuberosities



Obl Cor Should look like this:

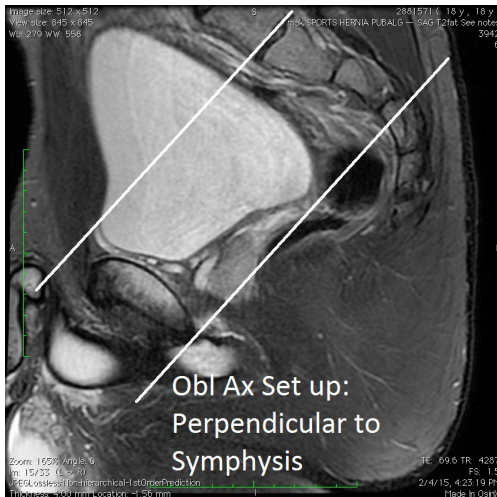


Obl Cor: Parallel with symphysis



Obl Ax:

Obl Ax should look like this:



Obl Ax Set up: Perpendicular to Symphysis

