

Olympic Experience



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Vancouver 2010 Olympics

- 5000 Olympic athletes and team officials
- 1350 Paralympic athletes and team officials
- 82 Participating countries-Olympic Games
- 42 Participating countries-Paralympic Games
- 25,000 Games volunteers
- 10,000 Accredited media



Vancouver 2010 Olympics

-17 days of events from Feb 12-28 2010, 15 sports

-10 days of events from March 12-21,2010, 5 sports



Vancouver 2010 Olympics

Polyclinic Services included:

- Primary care
- Sports medicine
- Emergency medicine and trauma care
- Surgical consultations
- Imaging
- Lab Services- CBC, urinalysis, chemistry, cultures
- Pharmacy
- Dental Clinic
- Eye Clinic and ENT Clinic
- Public Health Services



Vancouver 2010 Olympics

Village Polyclinics

- Physiotherapy
- Massage Therapy
- Chiropractic
- Sports Acupuncture
- Wheelchair repair
- Other Services
- Interpretation services
- Doping Control Station in or near polyclinic











ROLE OF RADIOLOGY AT THE GAMES

-19 Radiologist and 51 technologists

-each worked 13 to 14 shifts, plus on call overnight for any emergencies.

- Modalities Vancouver / Whistler: mobile x ray units, one mobile CT (per site), one mobile MRI 1.5 T(per site), one ultrasound machine (per site).
- Working in polyclinics many specialized services including dentistry, pharmacy, physiotherapy, public health, emergency medicine. Mobile medical unit that contained an operating room to treat emergent cases where transportation to Vancouver was not possible.
- Fully functional PAC and RIS, no paper reports. The PACS system (GE Centricity) allowed transmission of images between sites and to the VGH.











Role of Radiology at the Games

- **On Venue Ultrasound** , portable ultrasound at the field of play. Msk sonographers had the use of GE logic-e US units at Cypress Mountain (freestyle and snowboarding), Richmond Olympic Oval (long track speed skating), Canada Hockey Place and UBC (ice hockey) and Whistler Olympic Park (Nordic). Radiologist required to give immediate verbal feedback to the NOC physicians.



Role of Radiology at the Games

-Vscan, a pocket-sized ultrasound developed by GE Healthcare for use by physicians, has brought ultrasound technology to about the size of a cell phone or PDA.

-assess the major vessels and organs such as the aorta, heart and lung, liver, spleen, kidneys and the chest, abdomen, and pelvis for free fluid. Carried from exam to exam, room to room, and used on multiple patients.



Role of Radiology at the Games

-65% increase in imaging since the last winter olympics in Torino.
950 imaging studies were performed at the 2010 winter Olympics

-7500 medical incidents, 34% percent athletes. Rest, facility workers and others reporters, coaches in the village.

-Most injuries skiing, then snowboarding, cross country and bobsledding. Joints most effected, knee, pelvis, lower back







Sports Injuries at the Olympics

ACL

- most commonly injured ligament of the knee
- proximal fibers fan out along the medial wall of the lateral femoral condyle. There are two bundles of the ACL – the anteromedial and the posterolateral, named according to where the bundles insert into the tibial plateau.





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LT SAG PD FS
23-Mar-2011 18:00
Image: 10

WINDSOR REGIONAL HOSPITAL
SIGNA EXCITE MetCamp

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WINDSOR REGIONAL HOSPITAL
SIGNA EXCITE MetCamp



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80 mm
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Image: 12



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WINDSOR REGIONAL HOSPITAL

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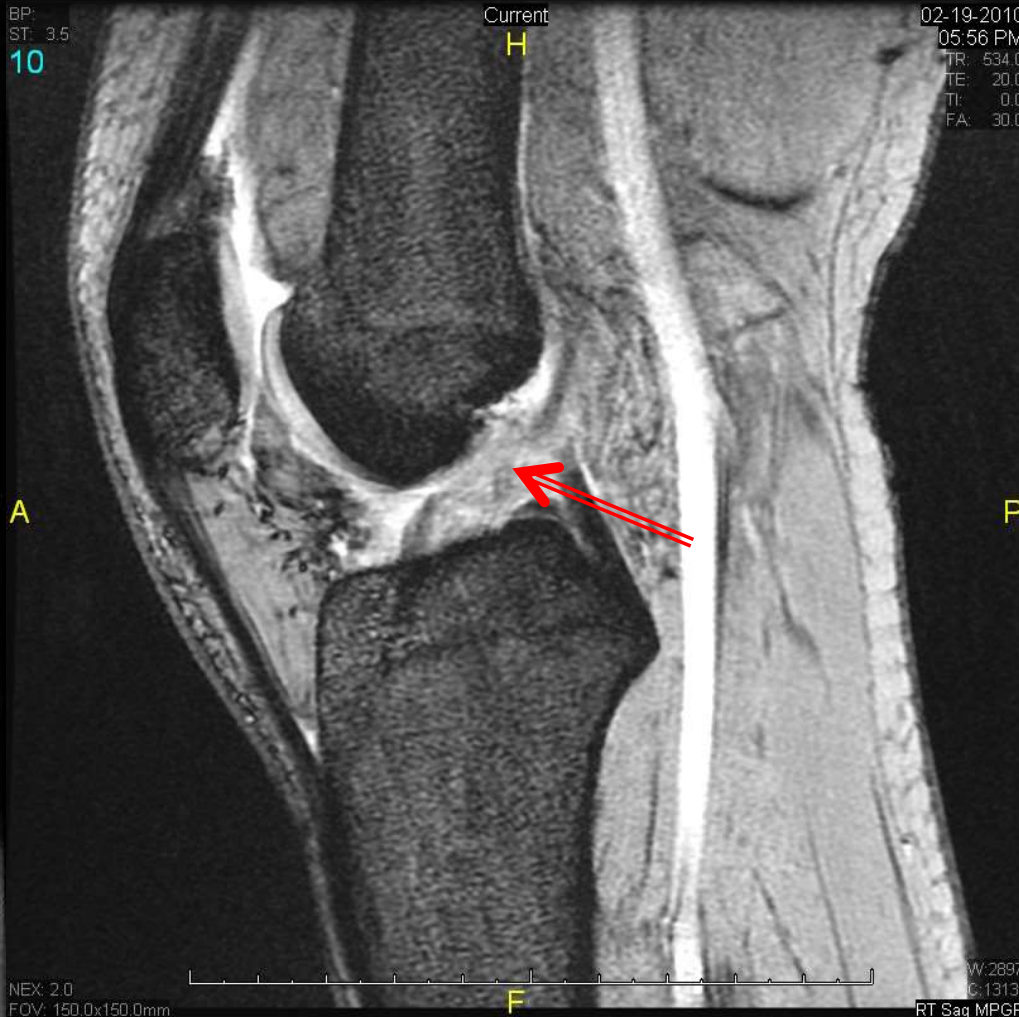
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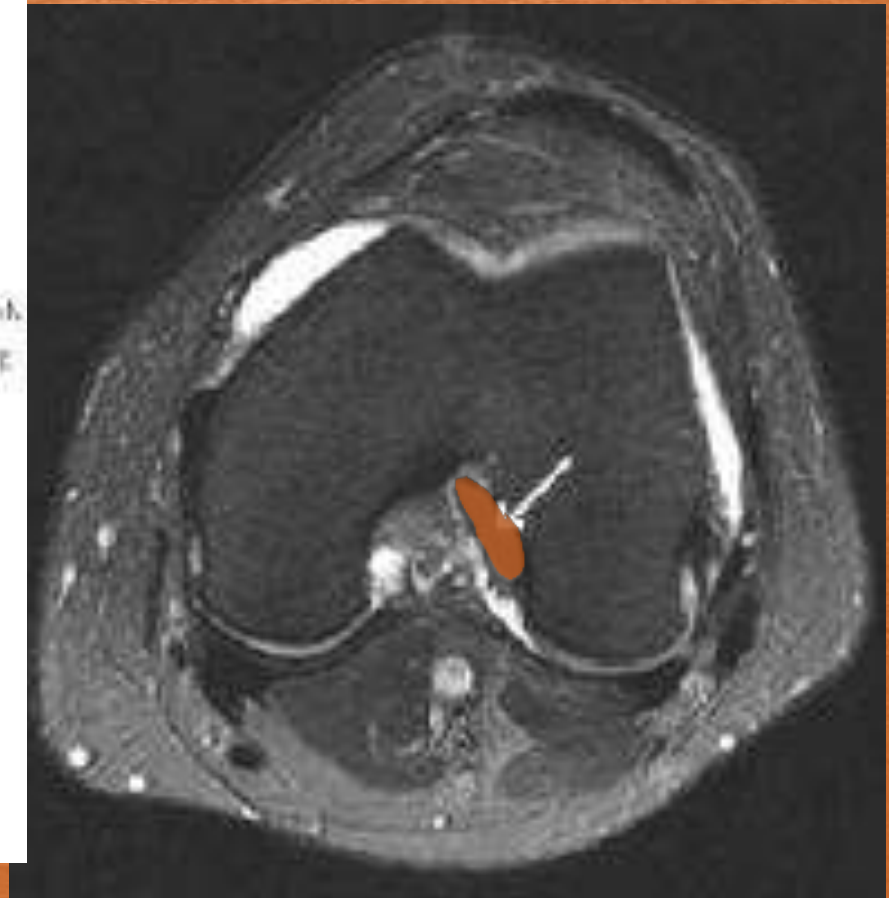
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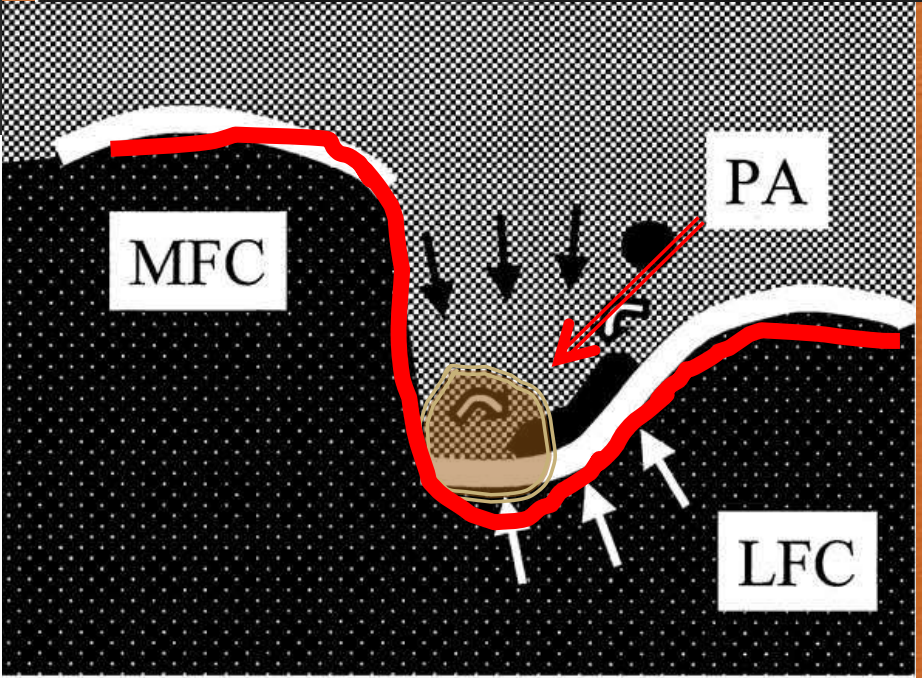
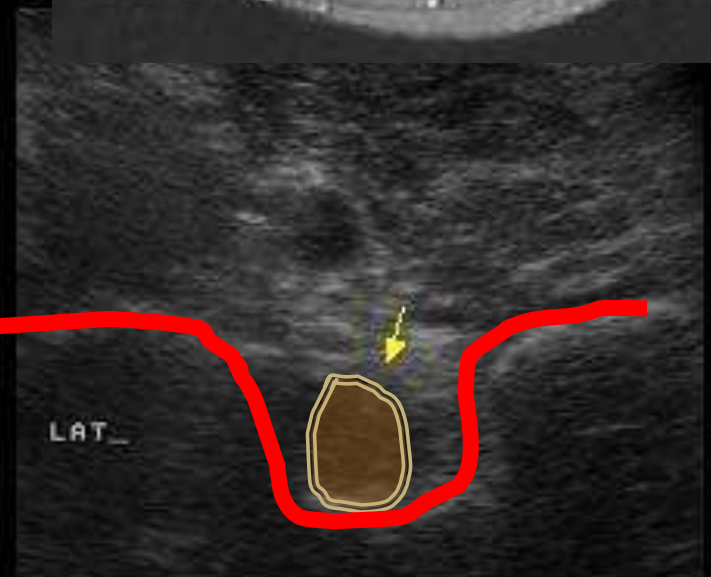
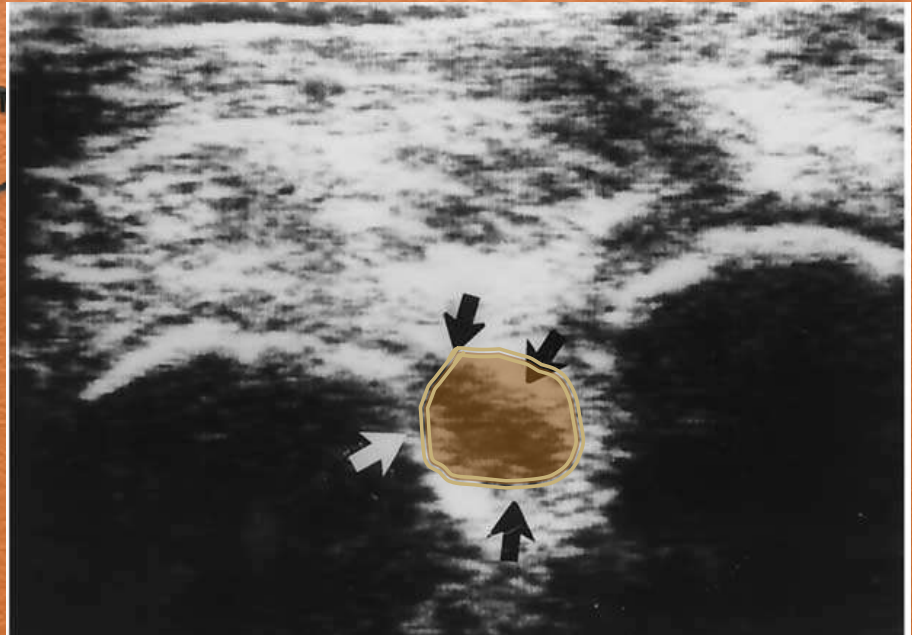
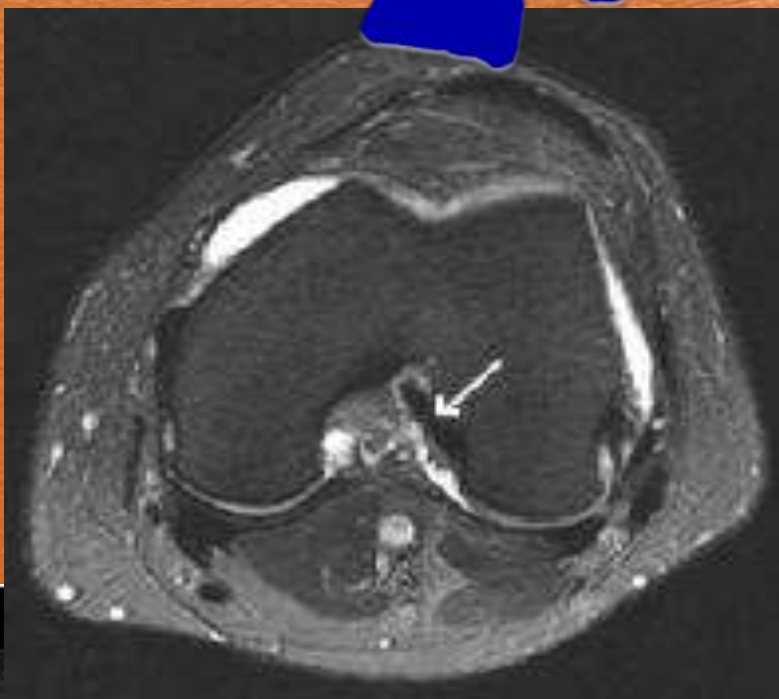
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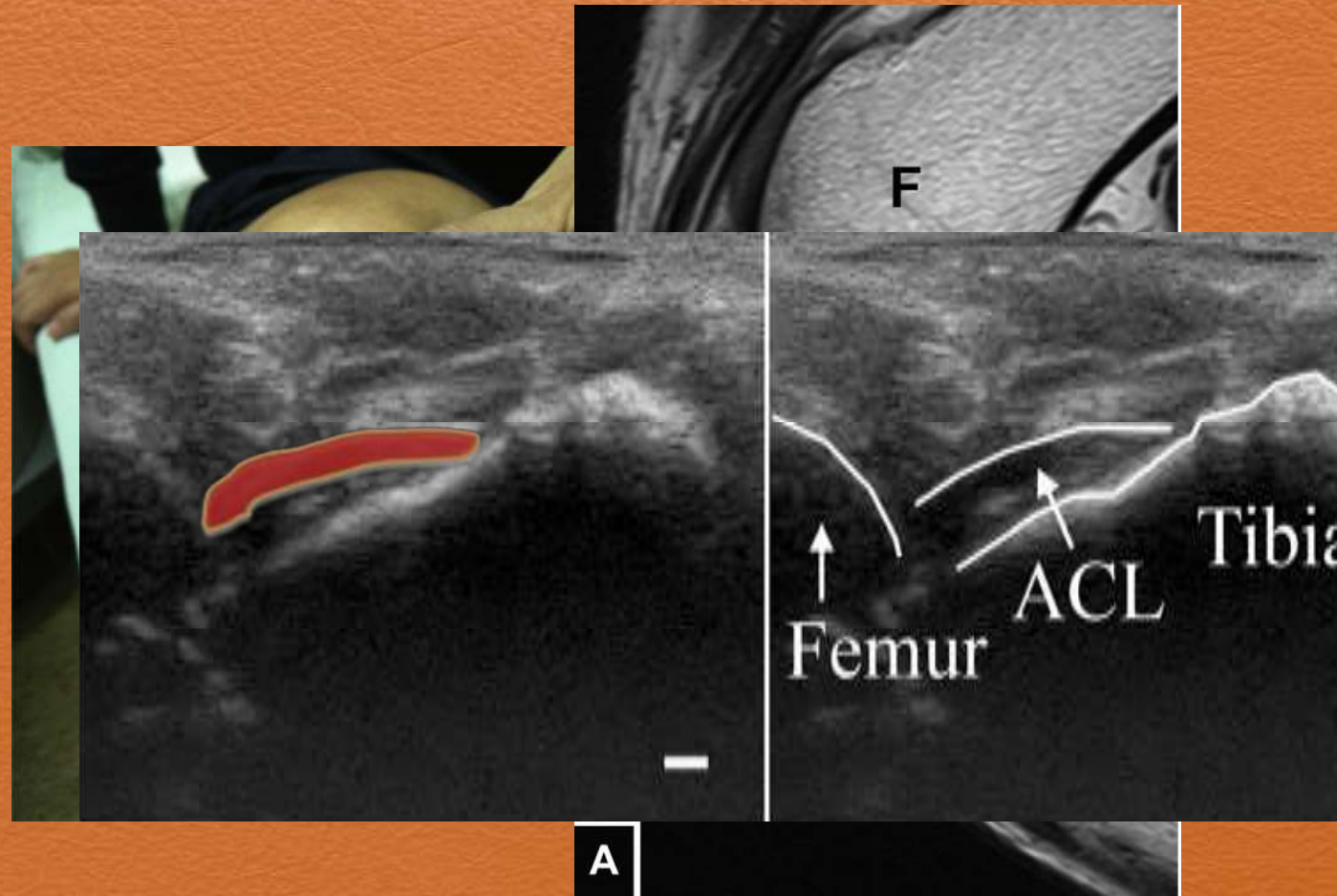


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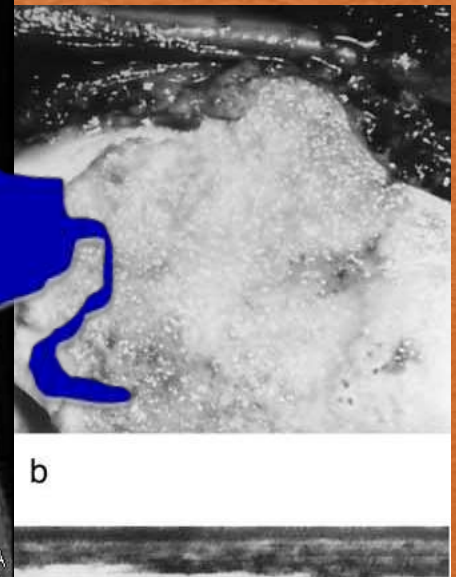
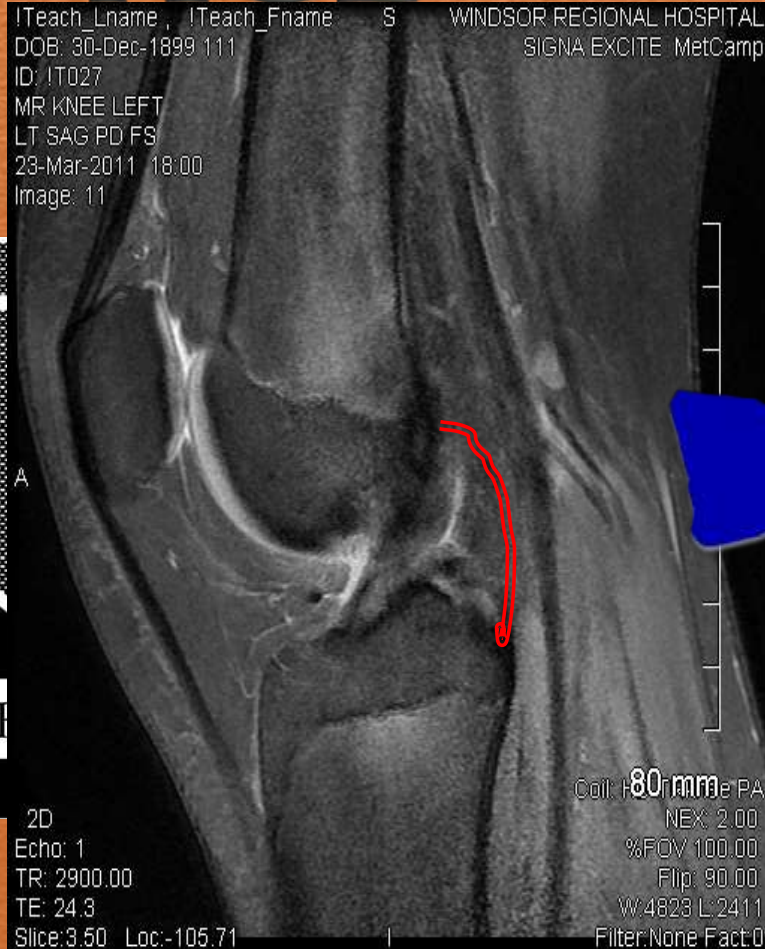
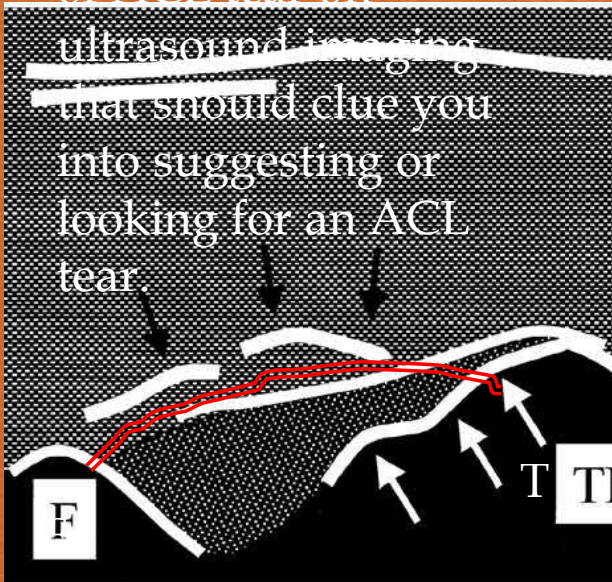


ACL



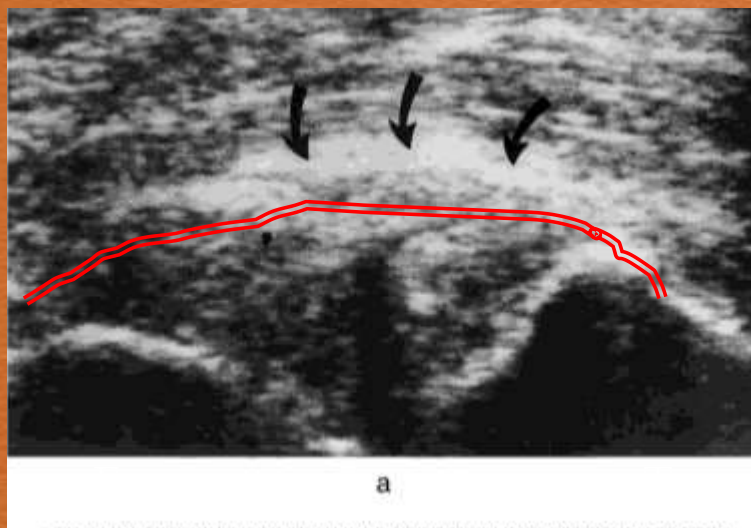
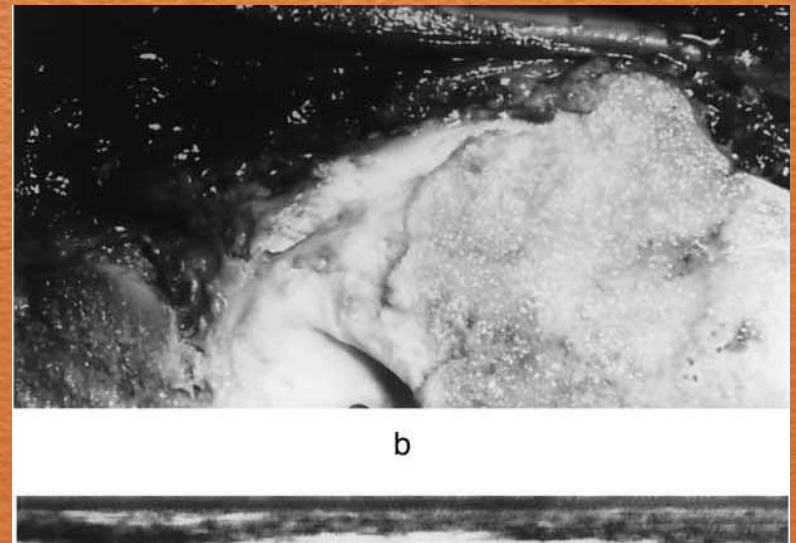
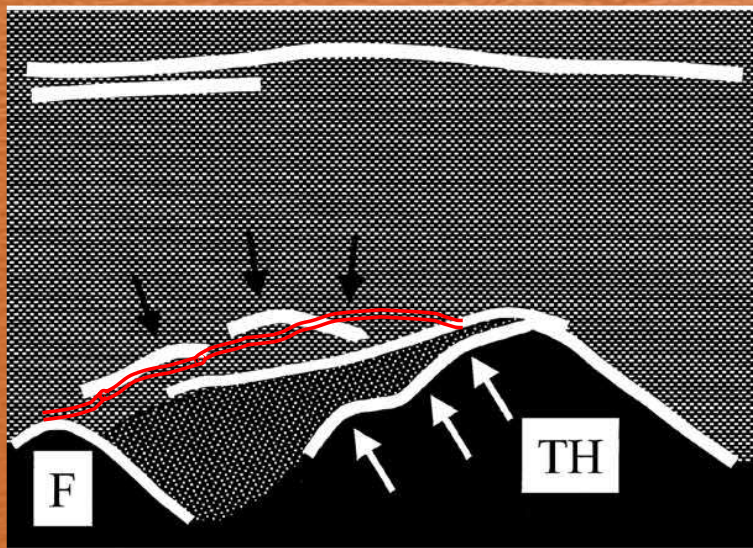
ACL

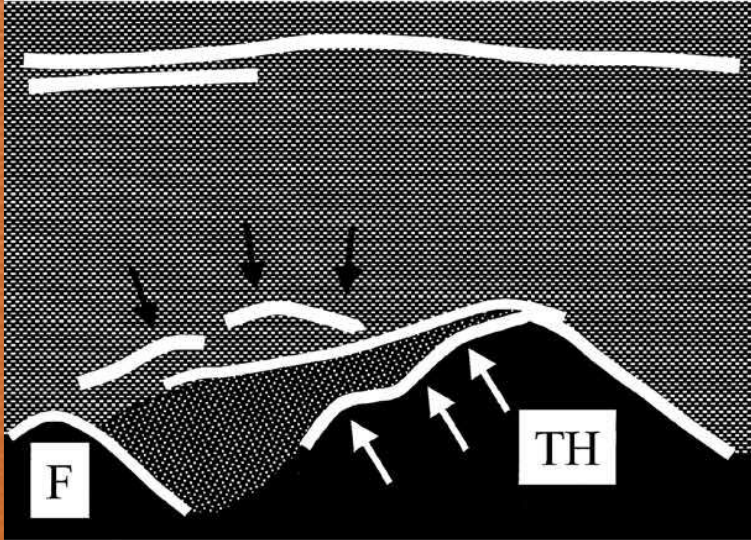
There are a few findings suggestive of ACL tear on ultrasound imaging that should clue you into suggesting or looking for an ACL tear.

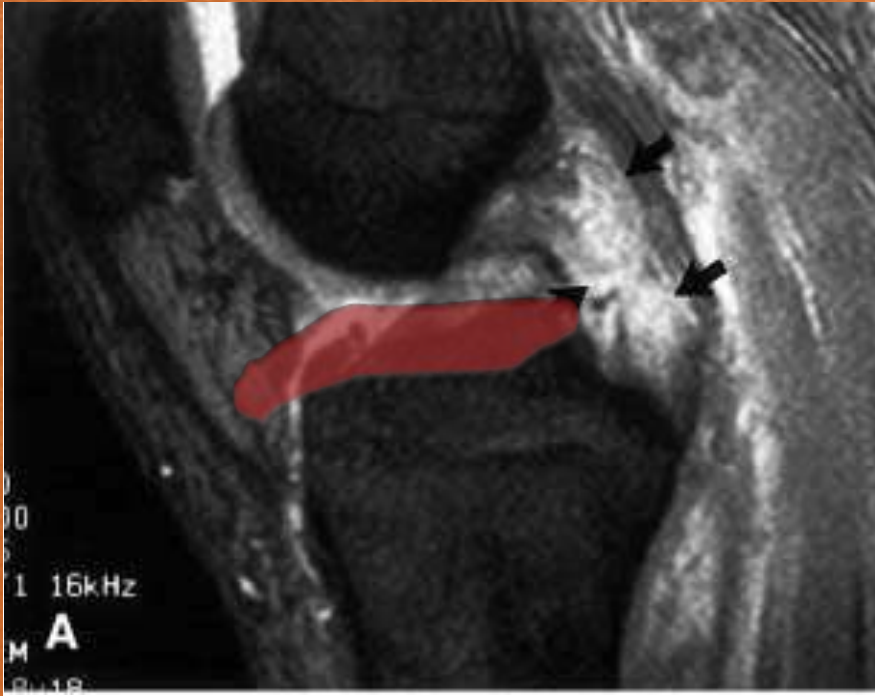


ACL



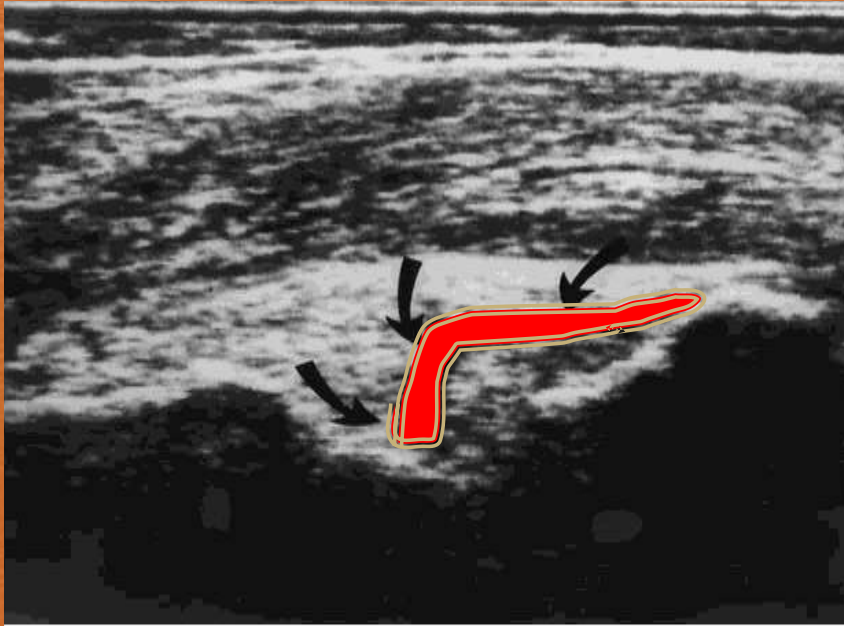






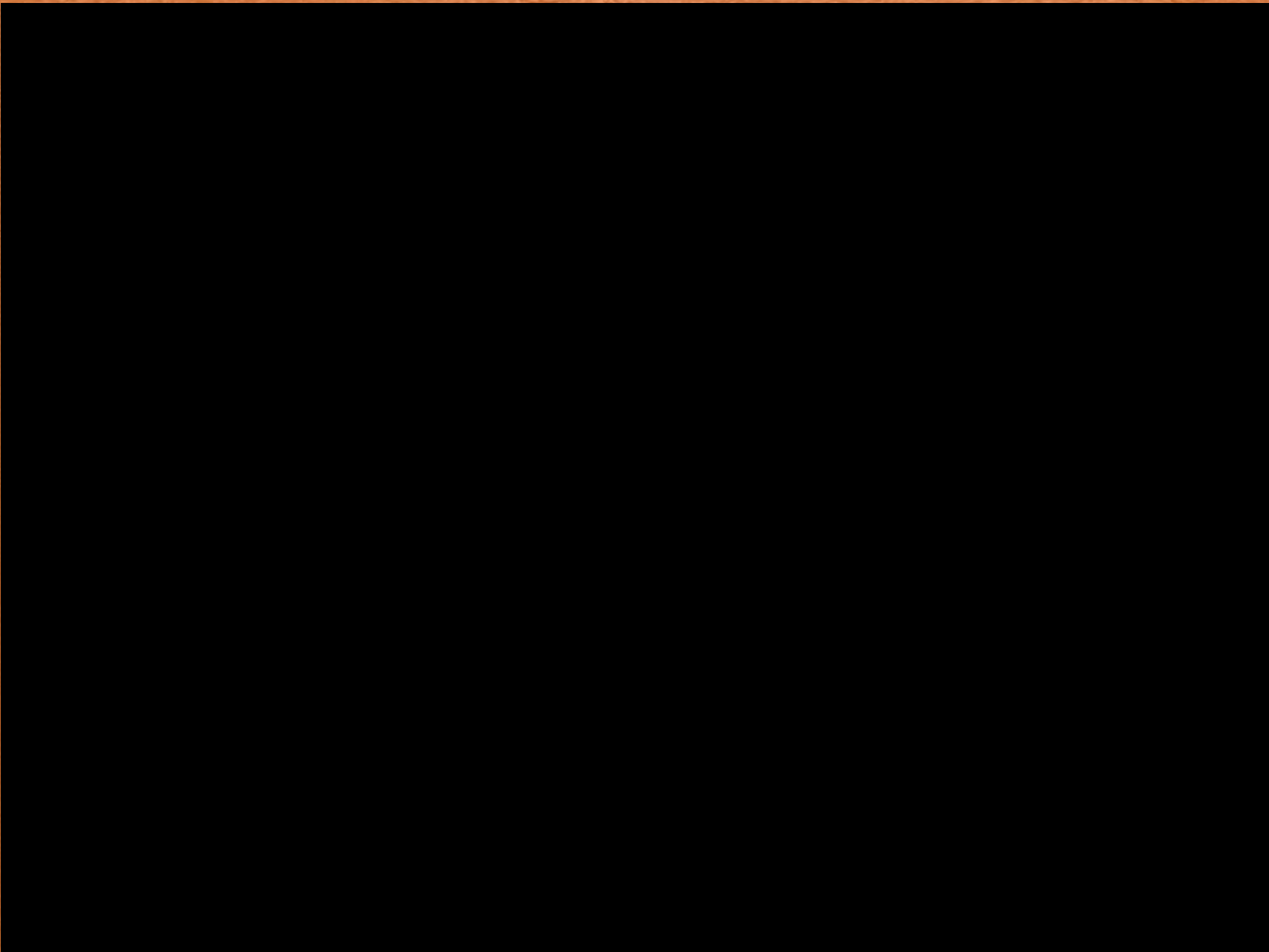
Less than 114 degrees





ACL

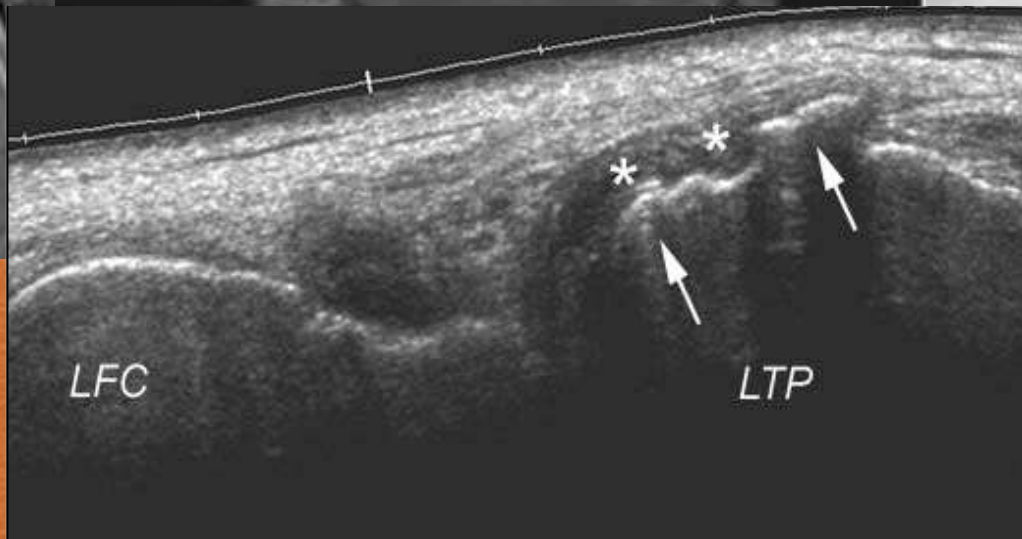
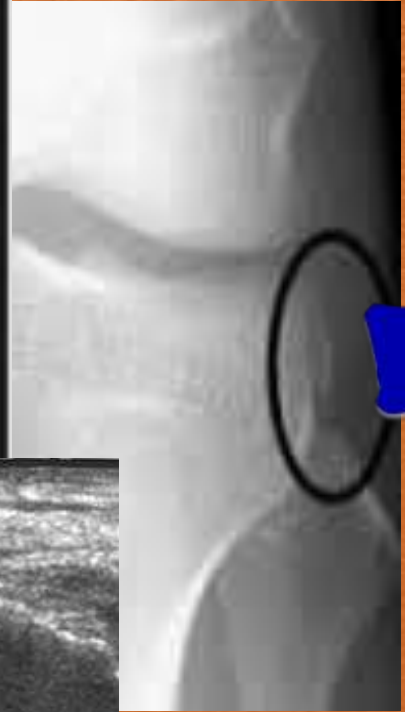
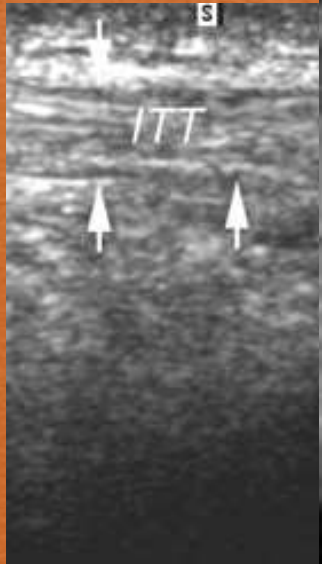
-second fracture- lateral tibial rim fracture. Avulsion of a small vertical bone fragment from the lateral aspect of the lateral tibial plateau. Internal rotation of the tibia on a flexed knee. Associated with ACL tears, meniscal injuries, posterolateral corner injuries.





Kadsources.com

Ref radiology assistant. Non meniscal pathology



BP:
ST: 3.5
10

Current
H

02-19-2010
05:56 PM
TR: 534.0
TE: 20.0
TI: 0.0
FA: 30.0

A

P



NEX: 2.0
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F

W: 2897
C: 1313

RT Sag MPGR





















ACL

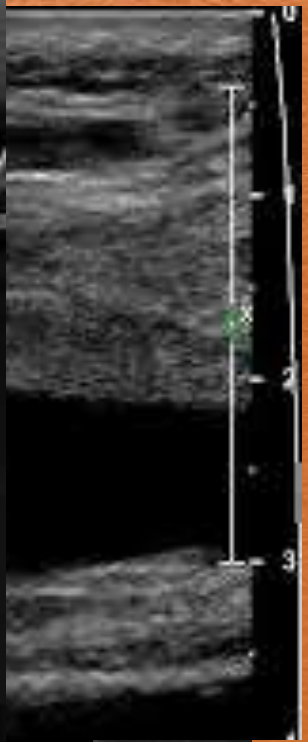
Lateral femoral notch sign





Ref. June 2001 Radiology. Lateral femoral notch sign

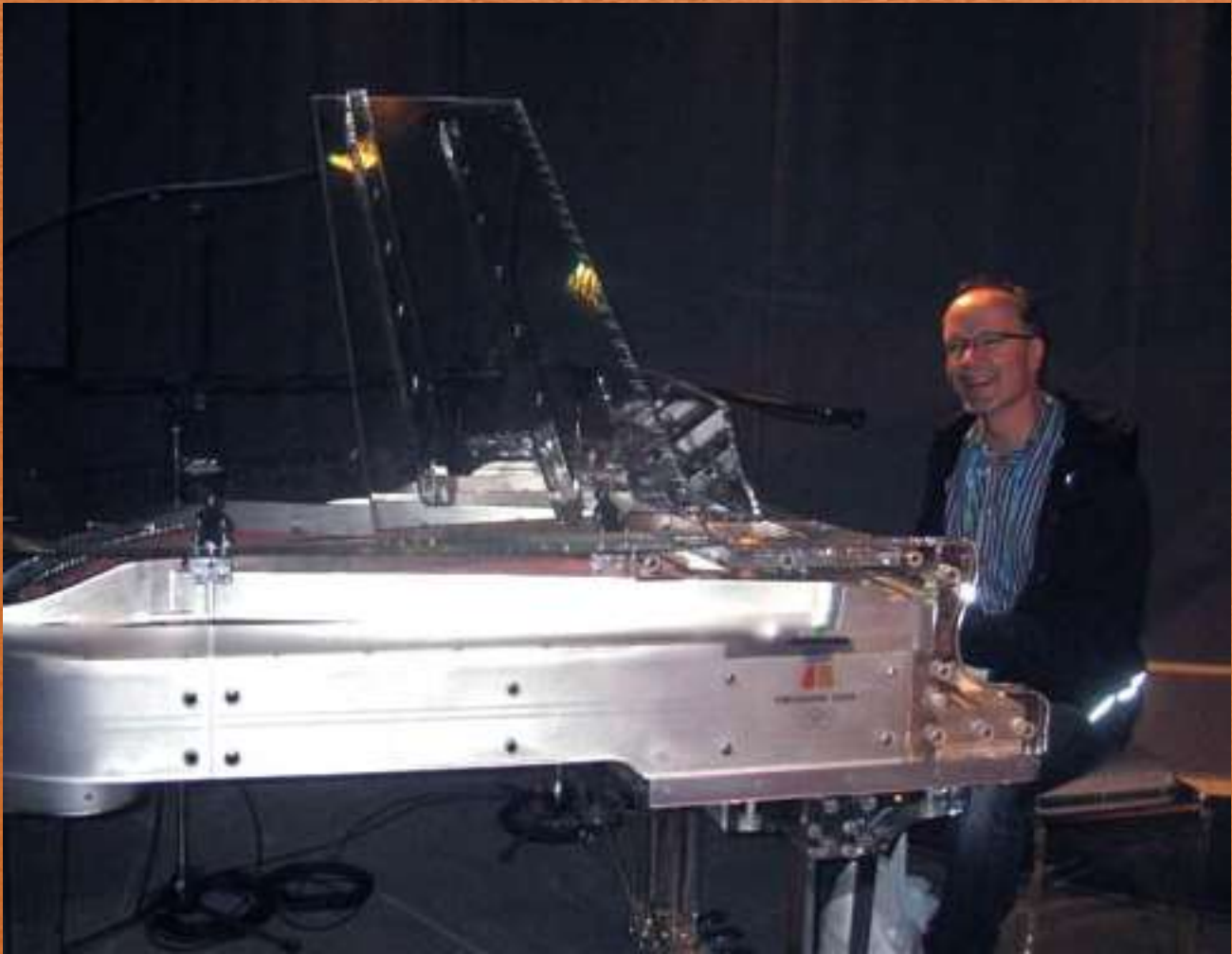








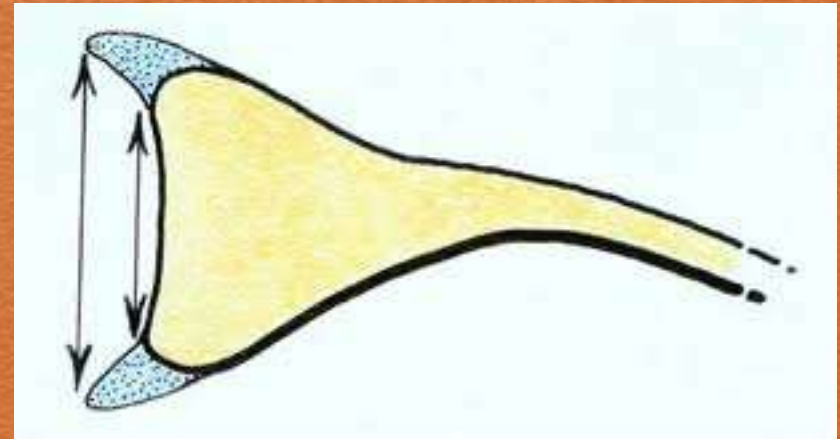
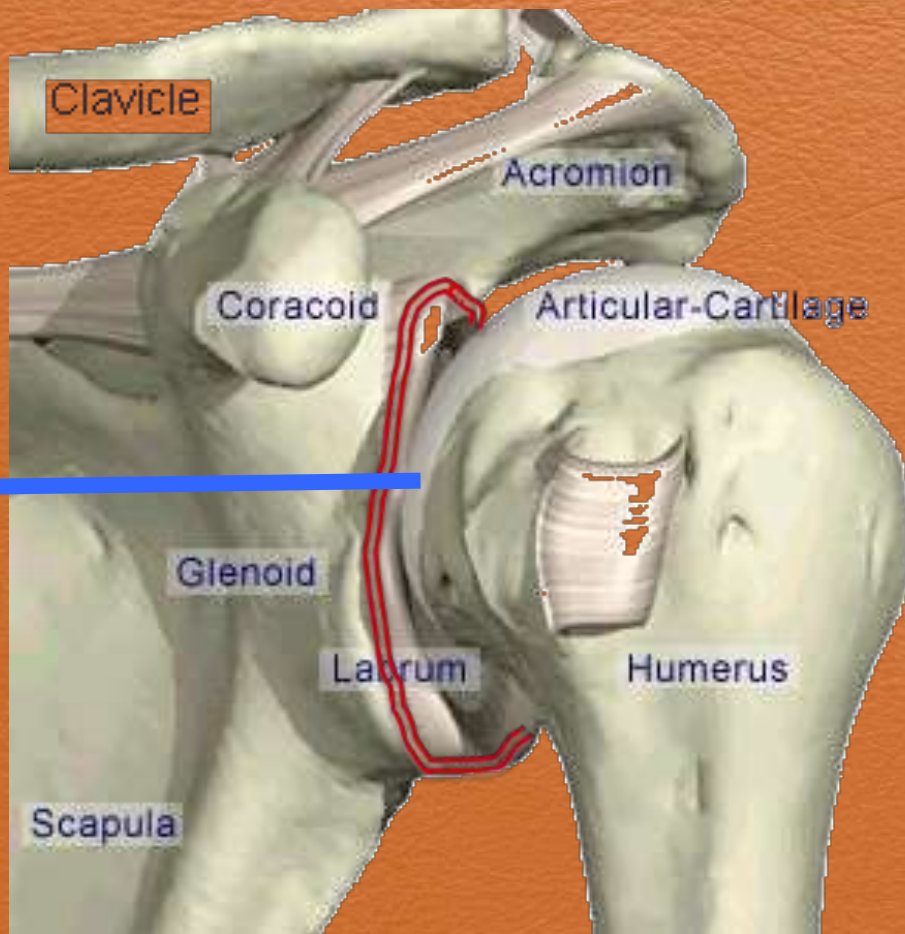


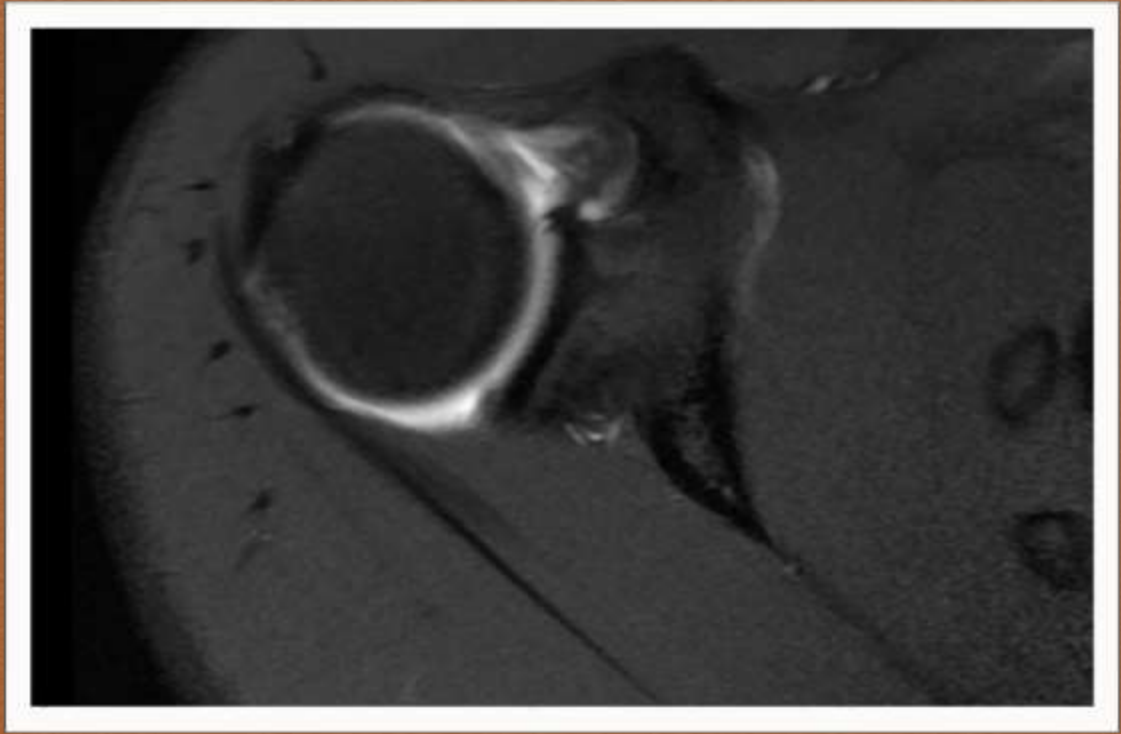


Glenohumeral Instability

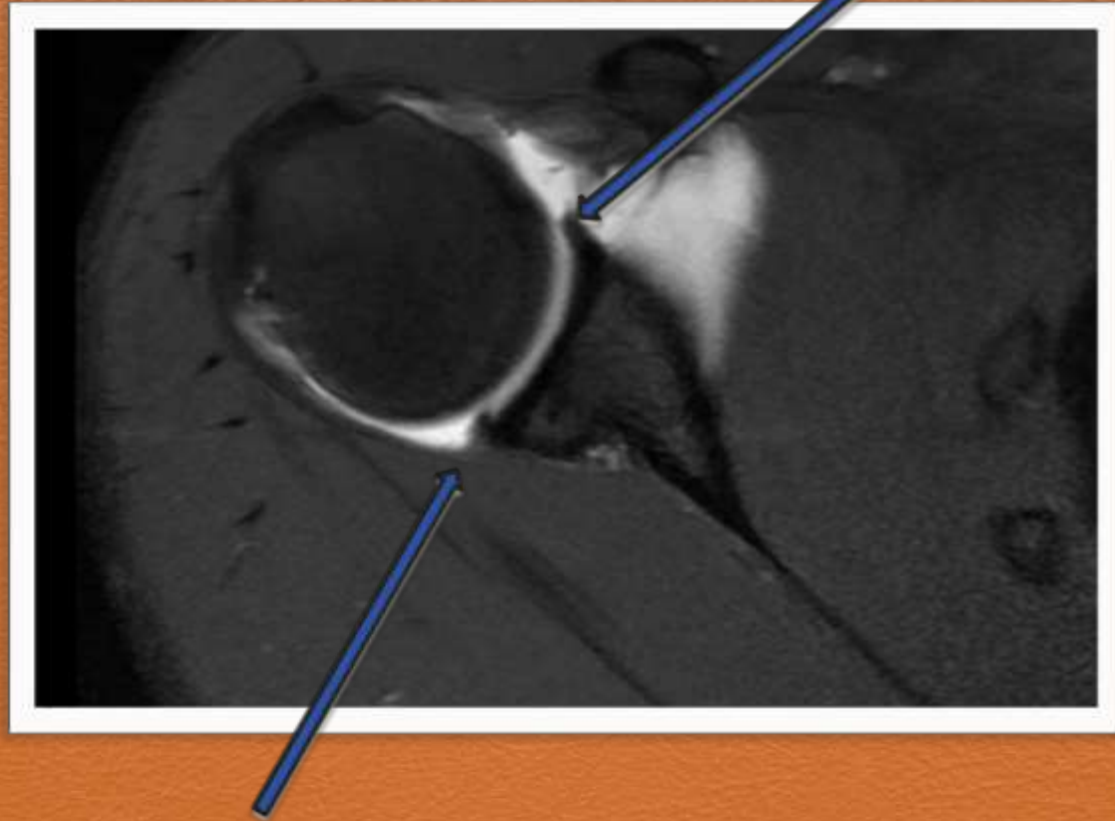
-Micro instability describes a group of instabilities that encompass injuries the stabilizers of the superior aspect of the shoulder. Injuries to rotator cuff interval, coracohumeral ligaments, superior glenohumeral ligaments, SLAP and rotator cuff tears.

-Macro instability describes injuries to any of the stabilizers at the anterior or posterior aspects of the shoulder.

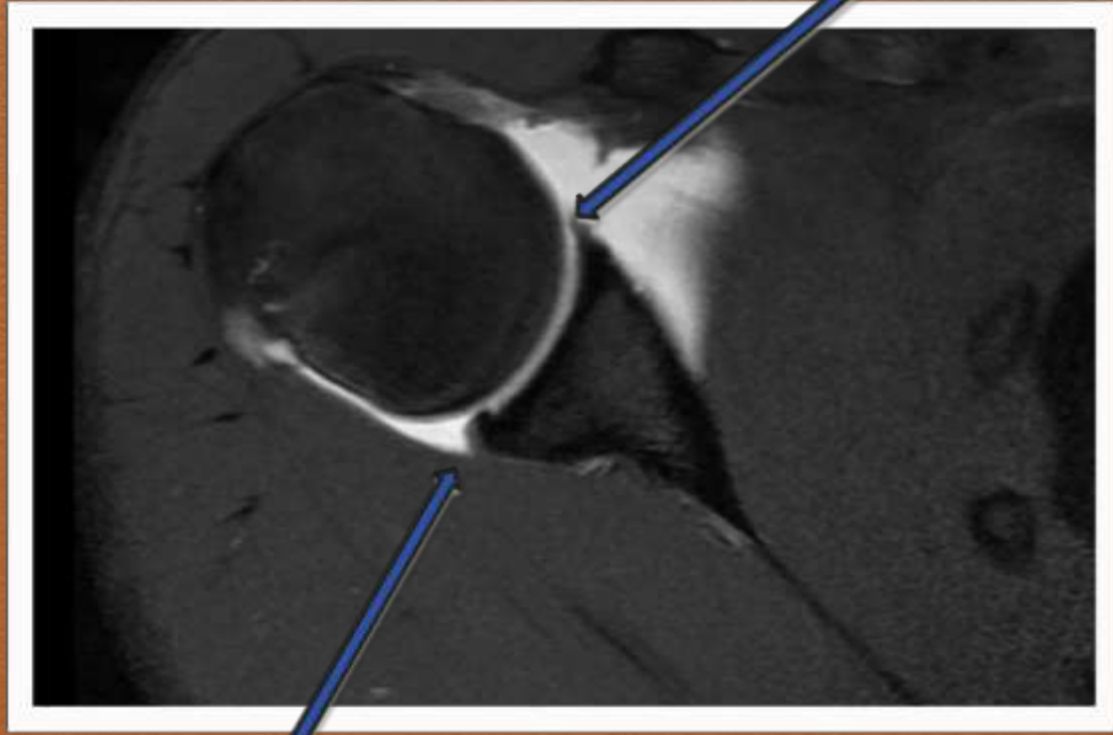




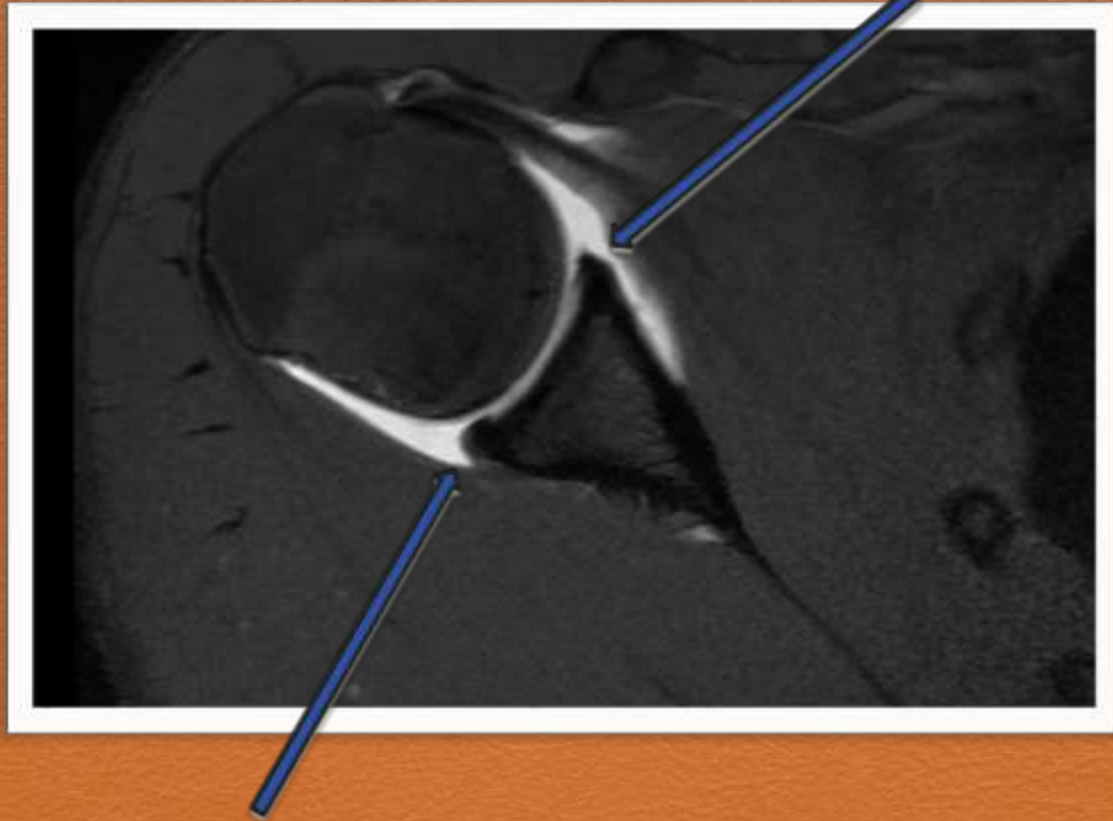
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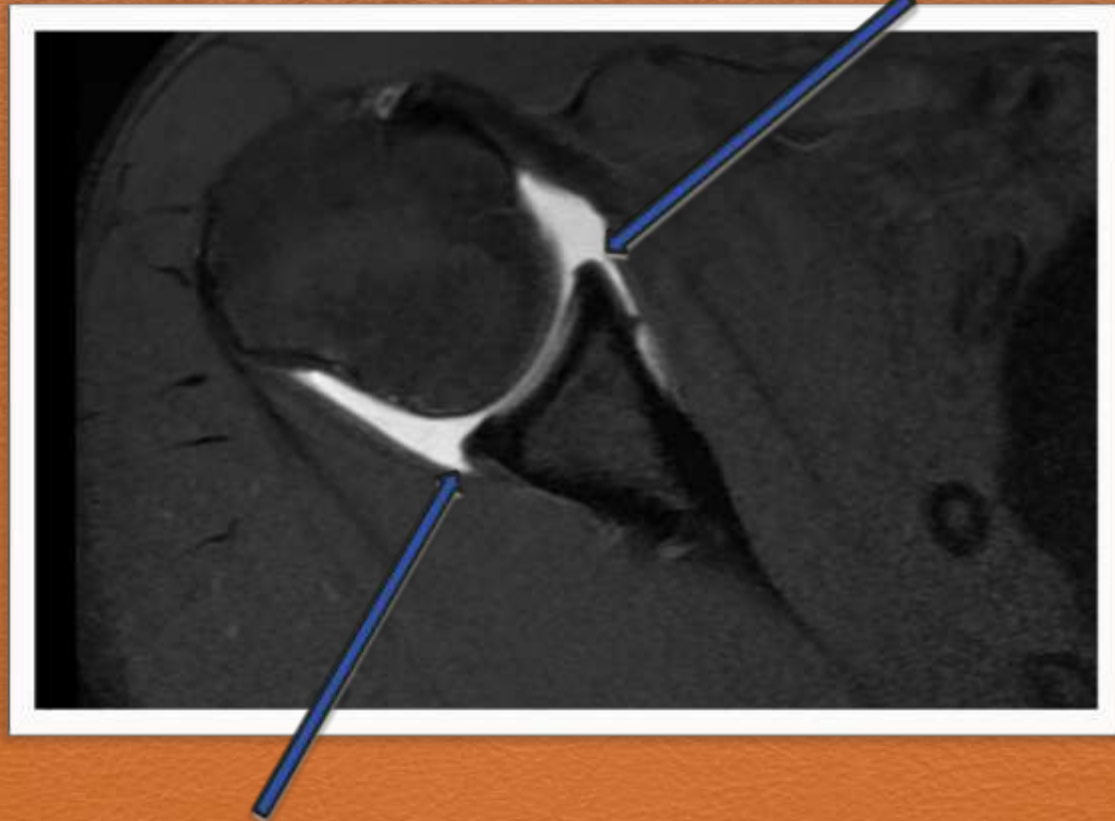
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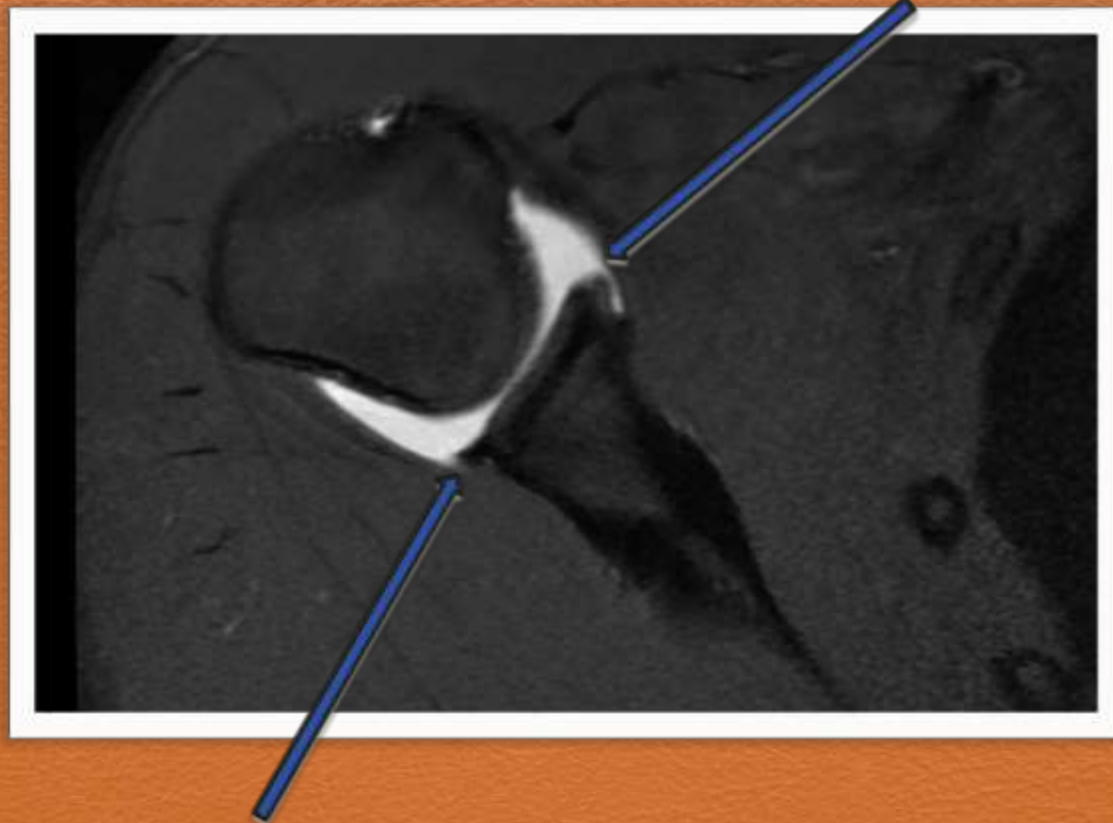
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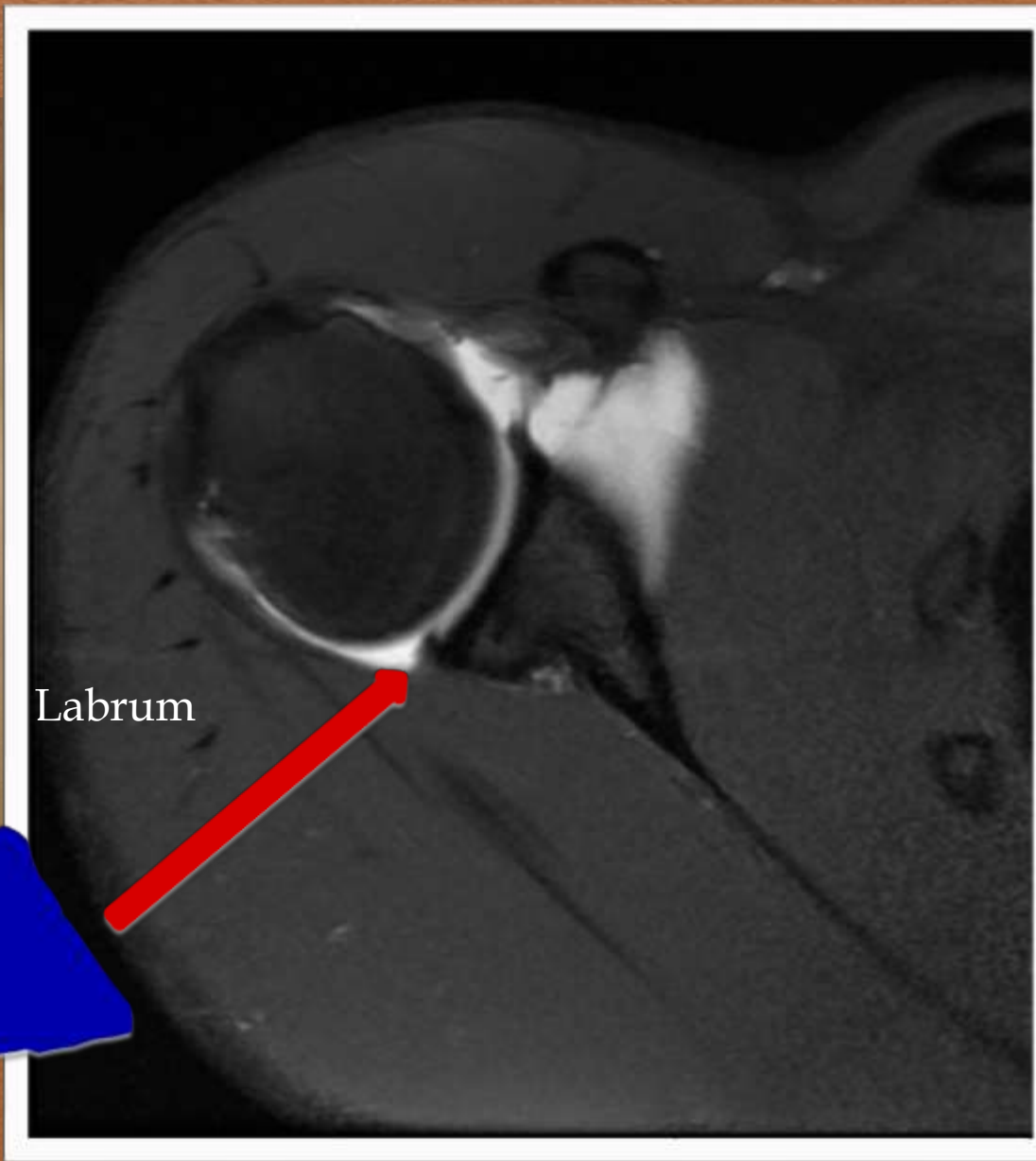


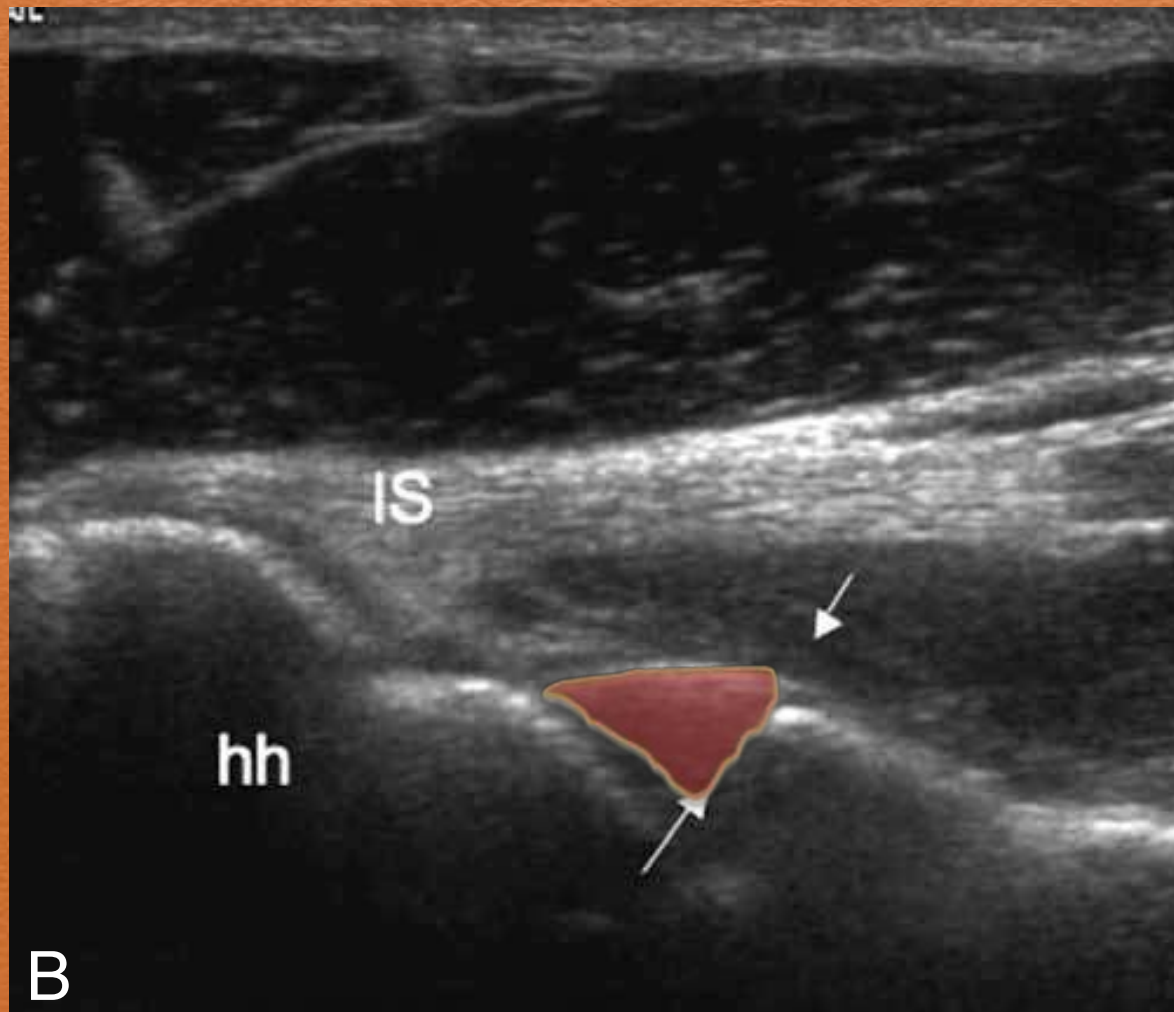
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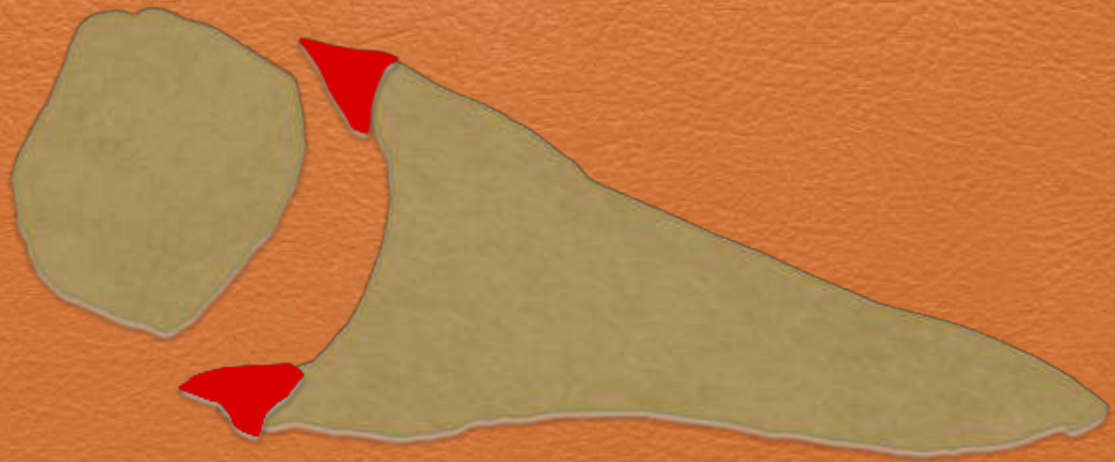


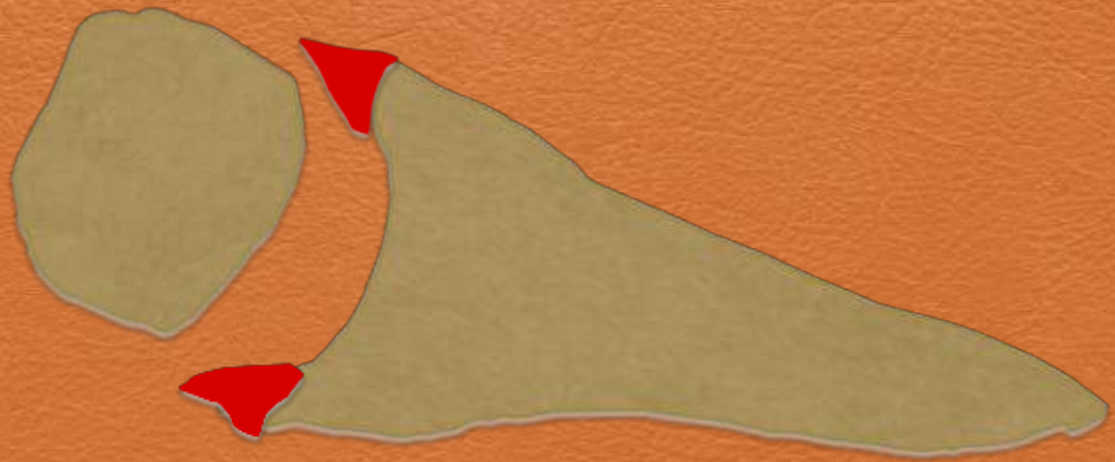
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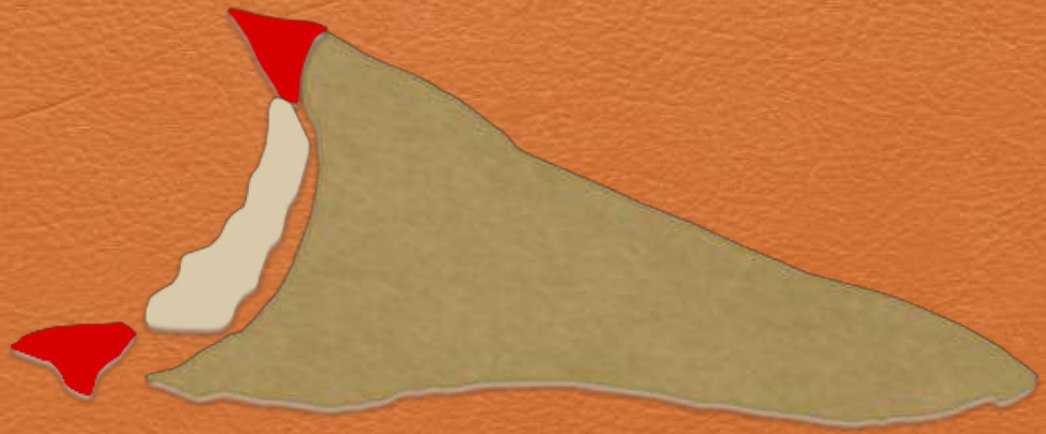


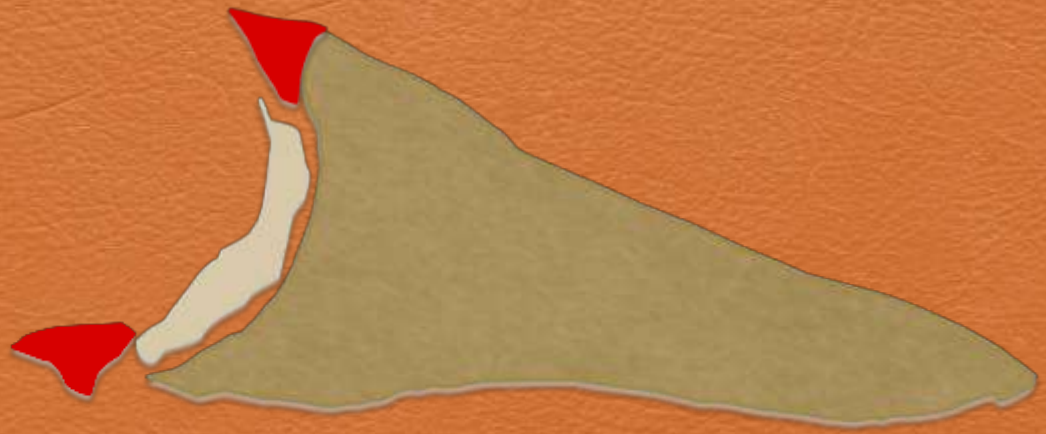


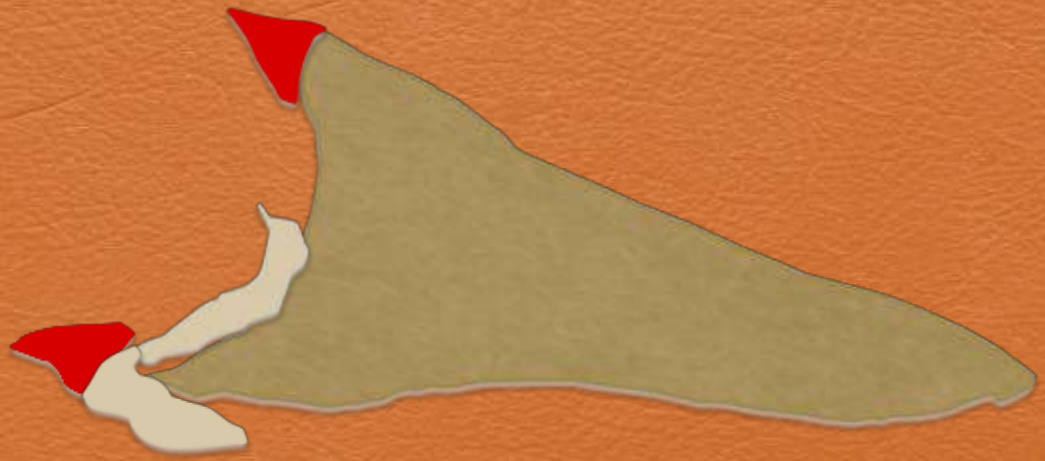


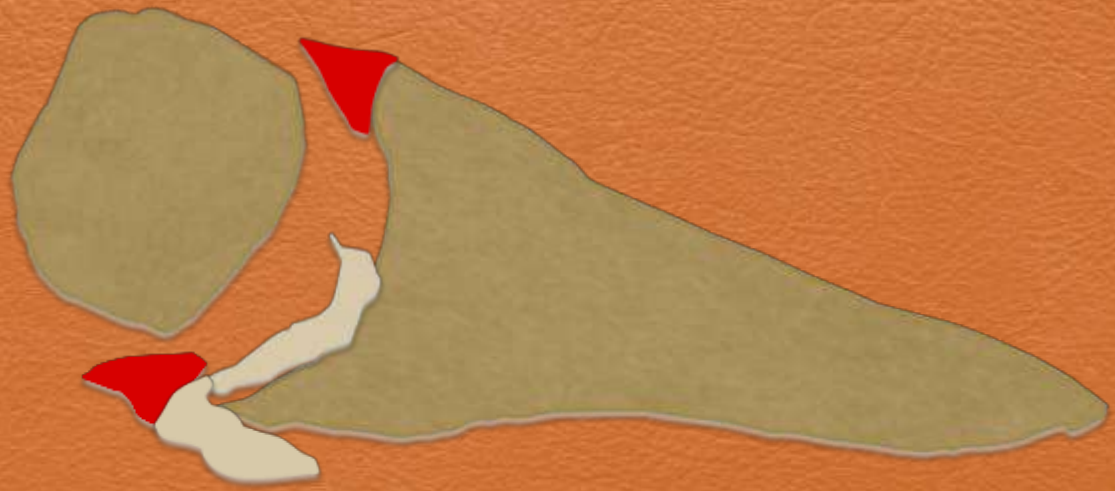


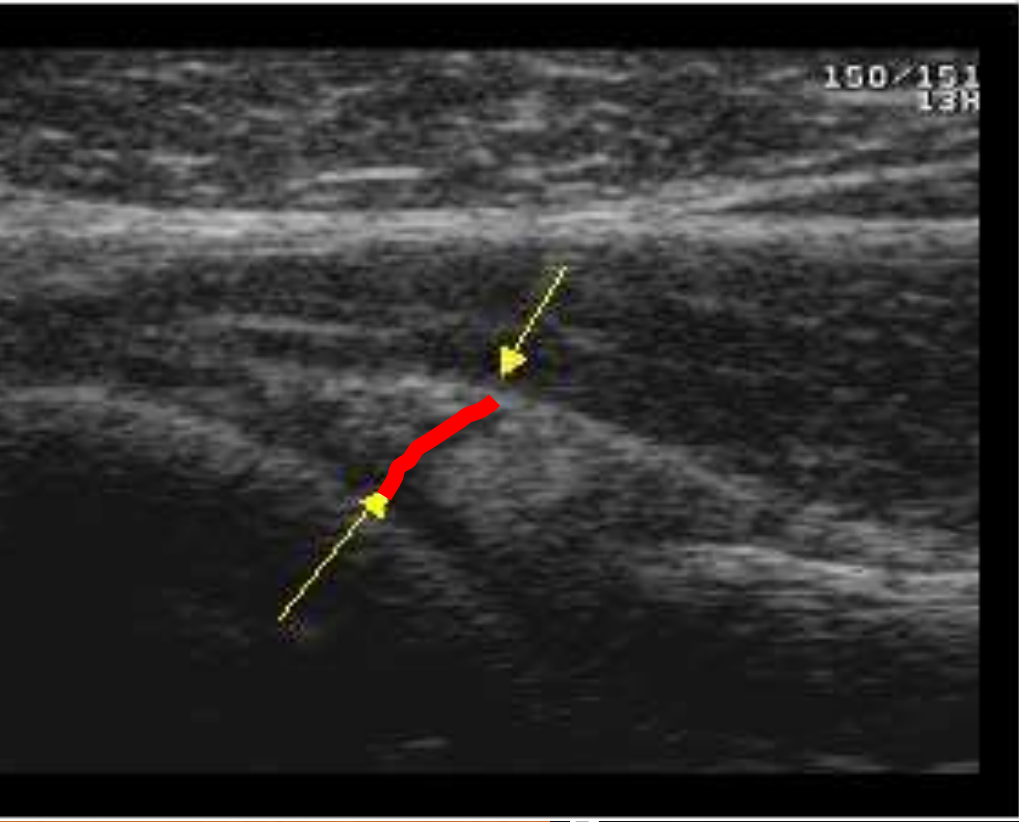




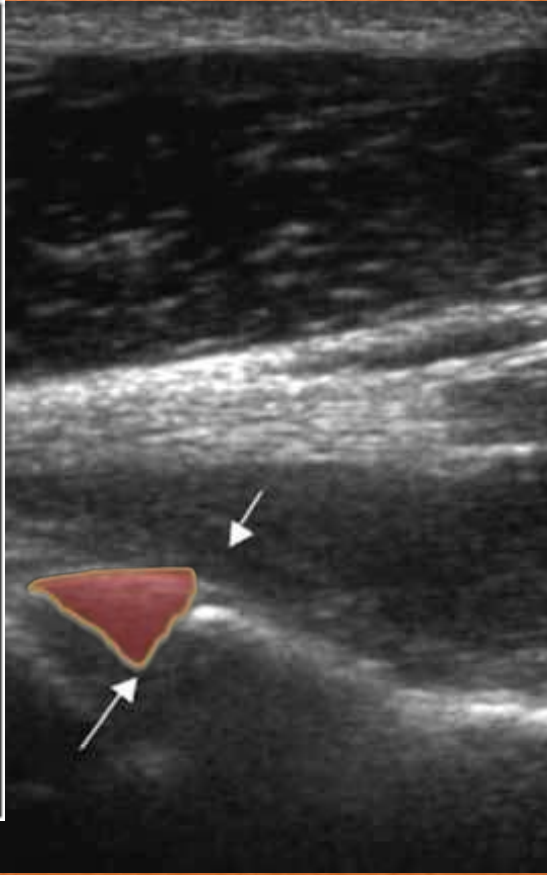


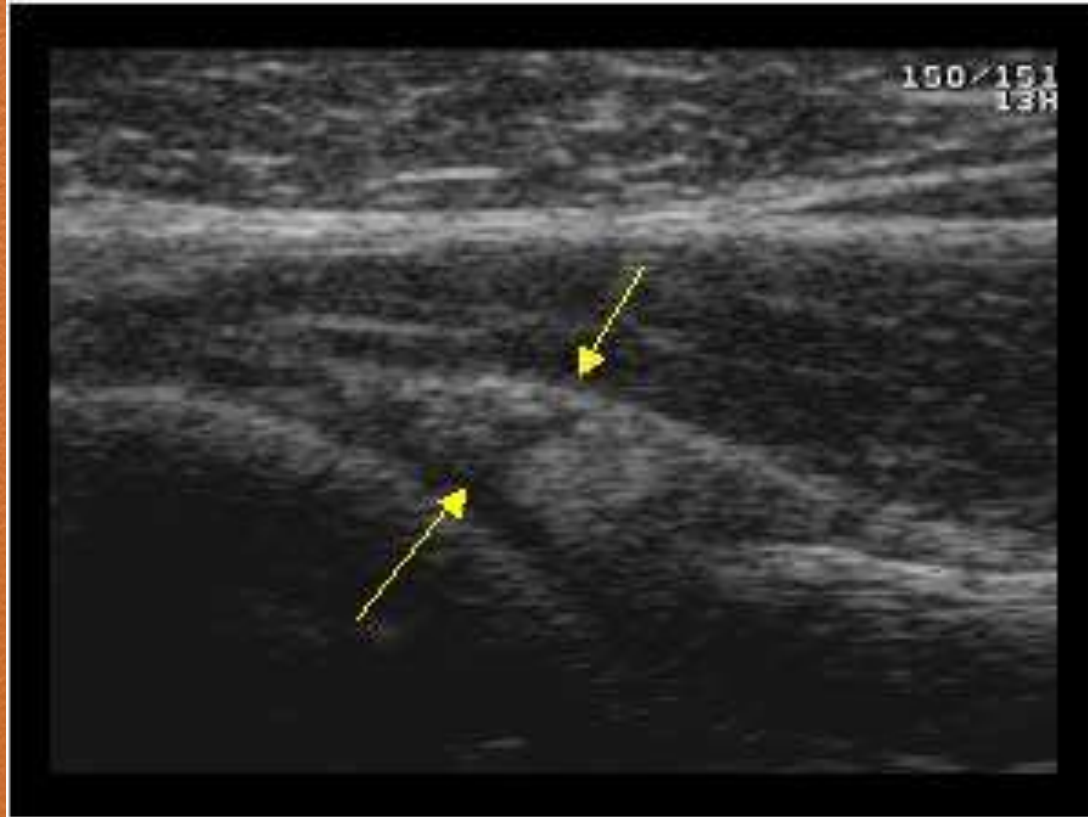


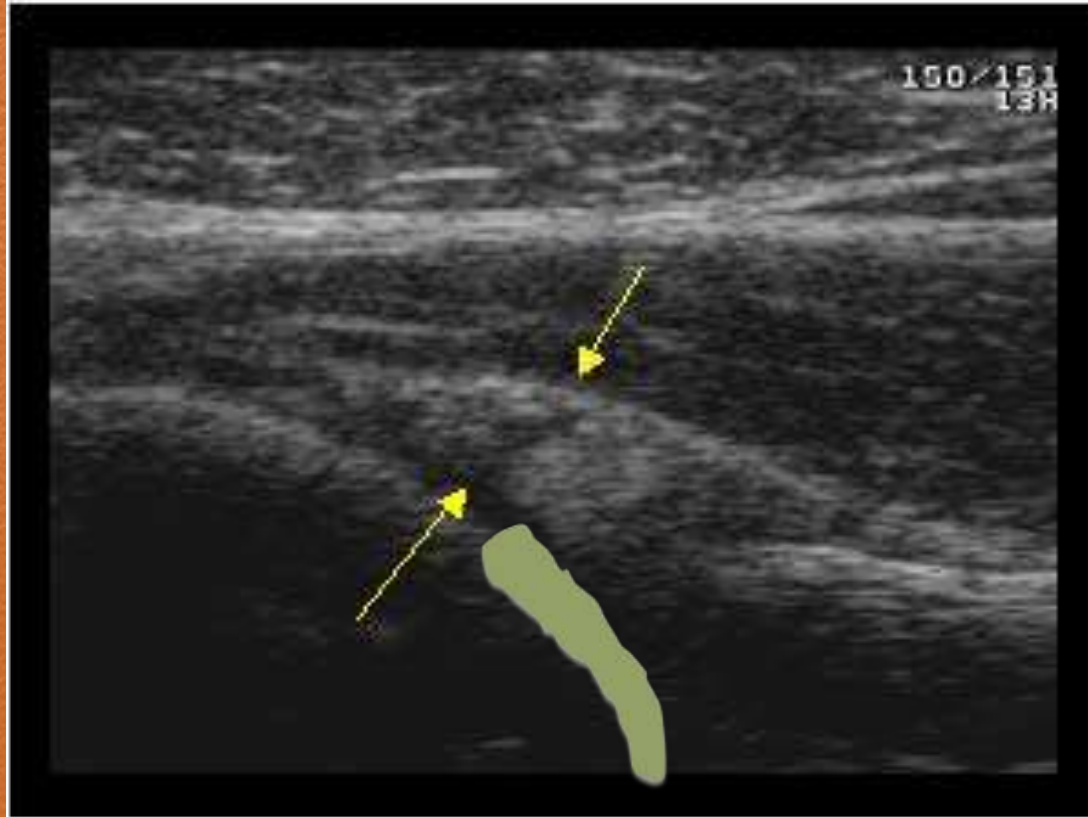


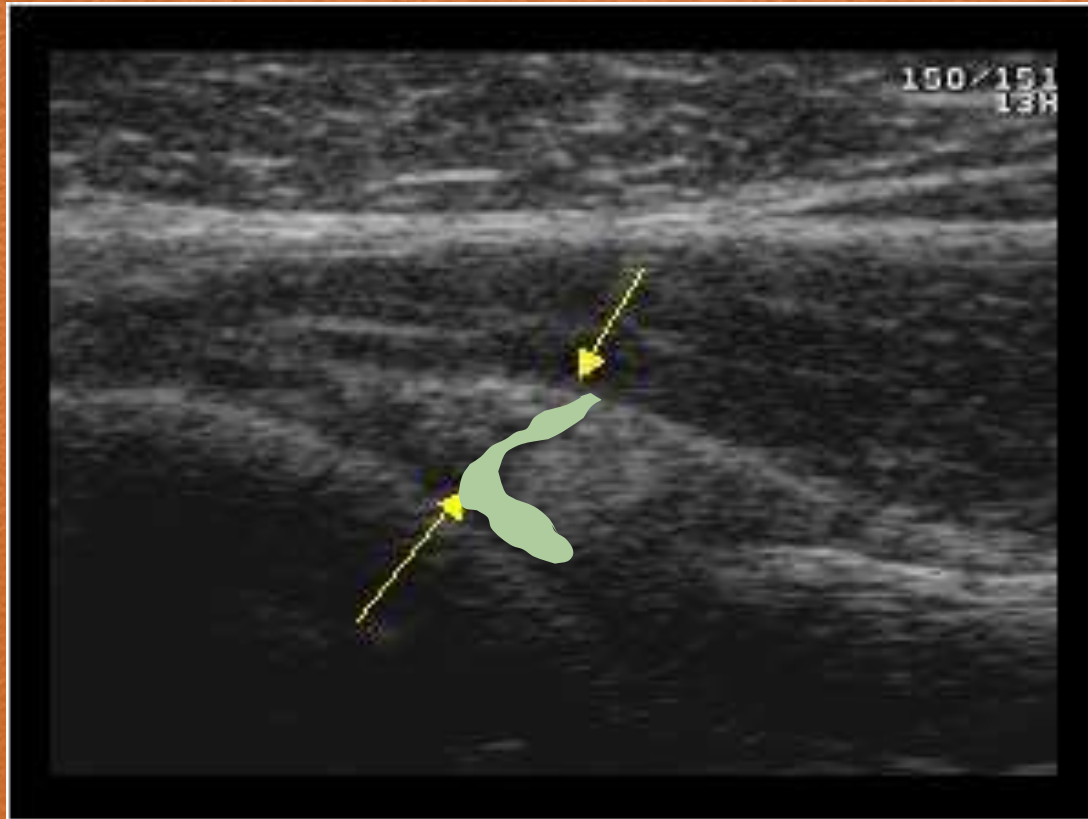


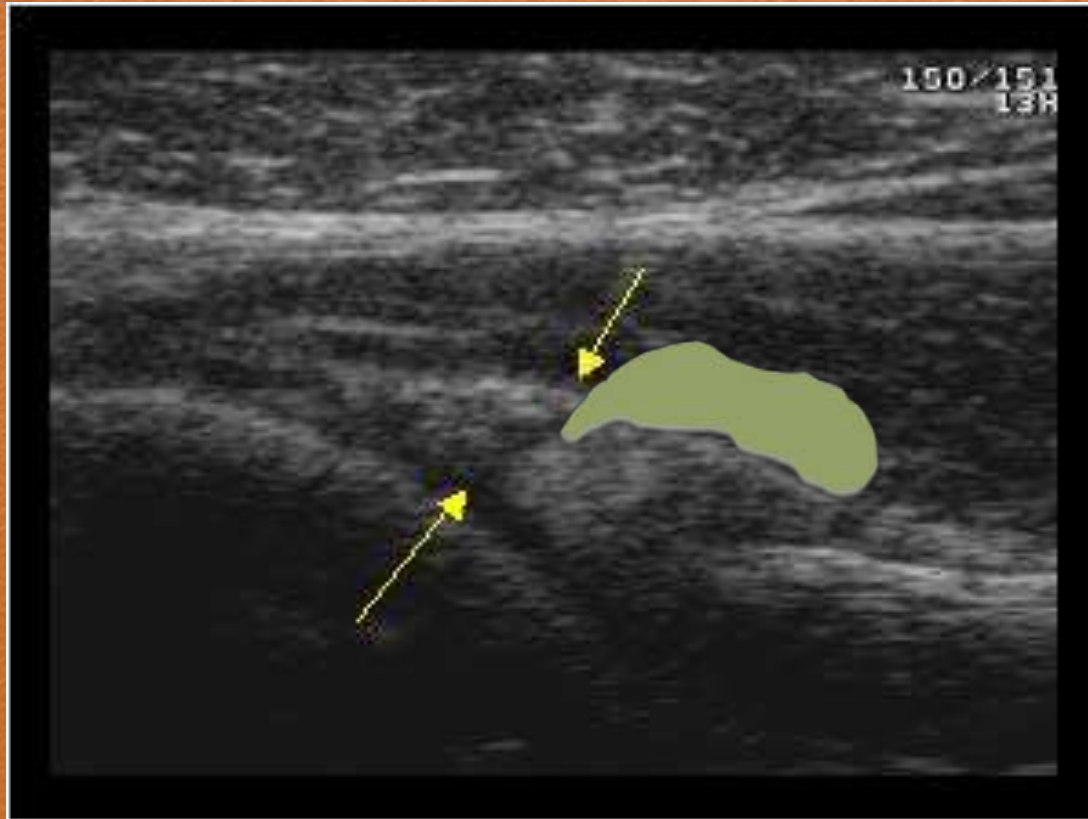
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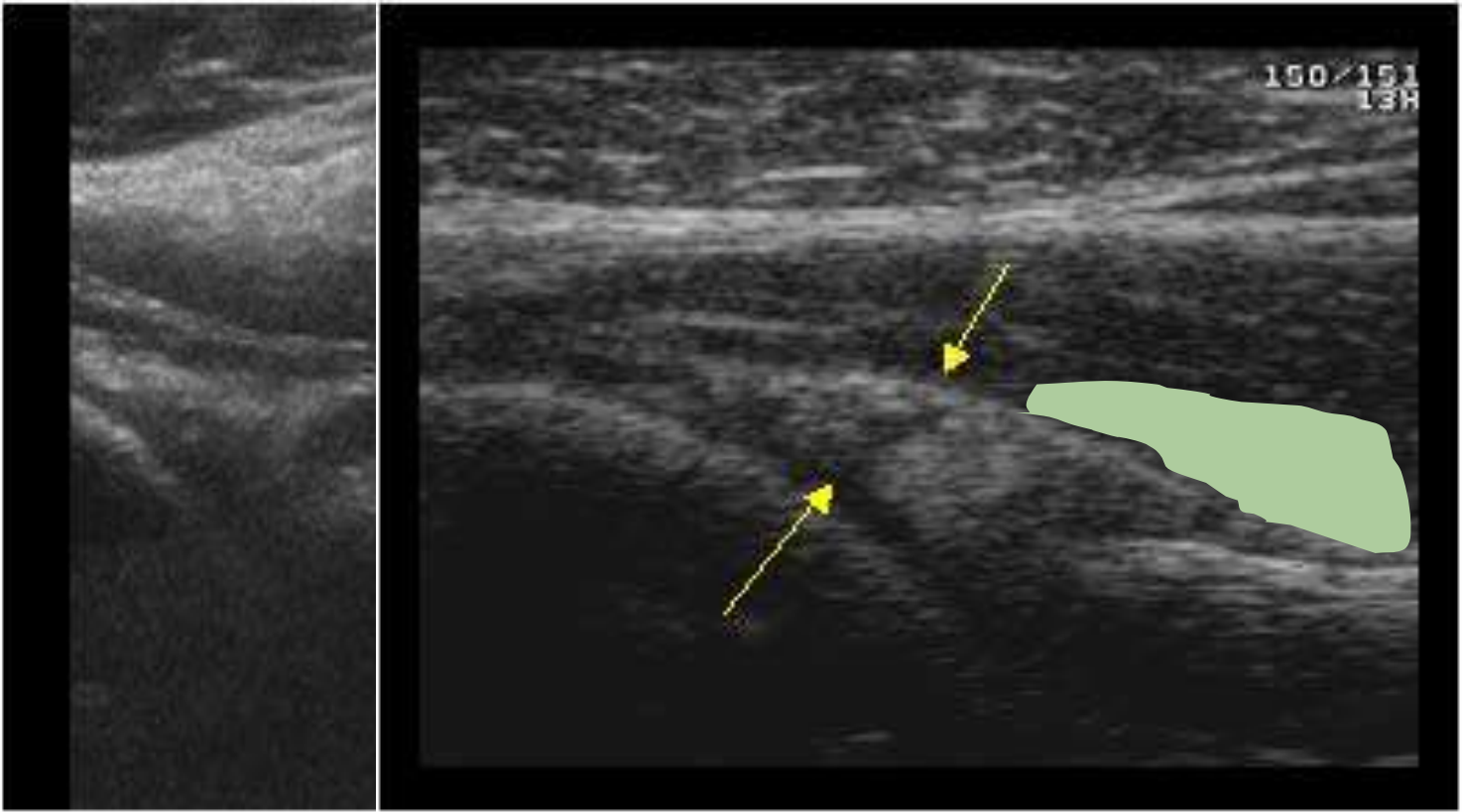
























Morel-Lavallee

- A Morel-Lavallée lesion is a closed degloving injury associated with severe trauma to the pelvis.
- Closed degloving injury, severance of the skin and subcutaneous tissue from the underlying fascia
- The injury disrupts the segmental perforating vessels and results in a hematoma.
- Has been described at other sites such as the scapula and lumbar region.

Iteach_Lname , Iteach_Fname S

WINDSOR REGIONAL HOSPITAL

DOB: 30-Dec-1899 111

SIGNA EXCITE MetCamp

ID: IT027

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LT Cor frFSE T2 FS

24-Mar-2011 18:01

Image: 16

R

L



2D
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Coil: 8.2 Body Upper
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NEX: 1.50
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I Teach_Lname , I Teach_Fname S WINDSOR REGIONAL HOSPITAL
DOB: 30-Dec-1899 111 SIGNA EXCITE MetCamp
ID: IT027
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24-Mar-2011 18:01
Image: 15



2D
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Coil: 8523001 Upper
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Flip: 90.00
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120 mm

ID: IT027
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24-Mar-2011 18:01
Image: 14



I Teach_Lname , I Teach_Fname S

WINDSOR REGIONAL HOSPITAL

DOB: 30-Dec-1899 111

SIGNA EXCITE MetCamp

ID: IT027

MR HIP UNILATERAL LEFT

LT Cor frFSE T2 FS

24-Mar-2011 18:01

Image: 13



R

L

2D
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Slice: 3.00 Loc: -2.84

120 mm
Coil: 8523000 Upper
NEX: 1.50
%FOV: 100.00
Flip: 90.00
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ITeach_Lname , ITeach_Fname S

WINDSOR REGIONAL HOSPITAL

DOB: 30-Dec-1899 111

SIGNA EXCITE MetCamp

ID: IT027

MR HIP UNILATERAL LEFT

LT Cor frFSE T2 FS

24-Mar-2011 18:01

Image: 12

R

L



2D
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120 mm
NEX: 1.50
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WINDSOR REGIONAL HOSPITAL

DOB: 30-Dec-1899 111

SIGNA EXCITE MetCamp

ID: IT027

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24-Mar-2011 18:01

Image: 11



2D
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Coil: 82 Body Upper
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NEX: 1.50
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WINDSOR REGIONAL HOSPITAL

DOB: 30-Dec-1899 111

SIGNA EXCITE MetCamp

ID: IT027

MR HIP UNILATERAL LEFT

LT Cor frFSE T2 FS

24-Mar-2011 18:01

Image: 10



R

L

2D
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 Slice: 3.00 Loc: 7.59

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120 mm
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WINDSOR REGIONAL HOSPITAL

DOB: 30-Dec-1899 111

SIGNA EXCITE MetCamp

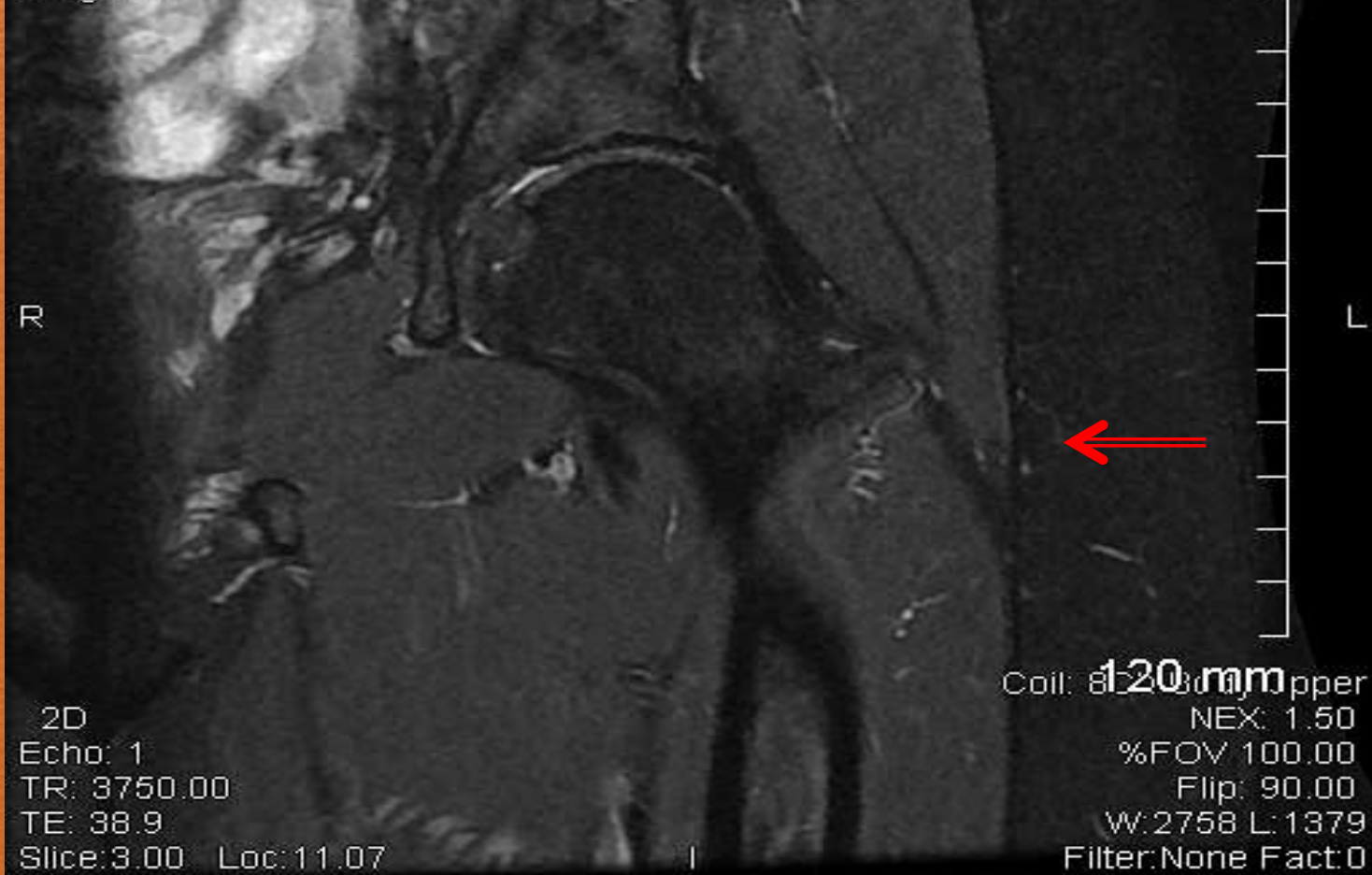
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LT Cor frFSE T2 FS

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Image: 9



R

L

2D
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120 mm
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ITeach_Lname , ITeach_Fname S

WINDSOR REGIONAL HOSPITAL

DOB: 30-Dec-1899 111

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LT Cor frFSE T2 FS

24-Mar-2011 18:01

Image: 8

R

L



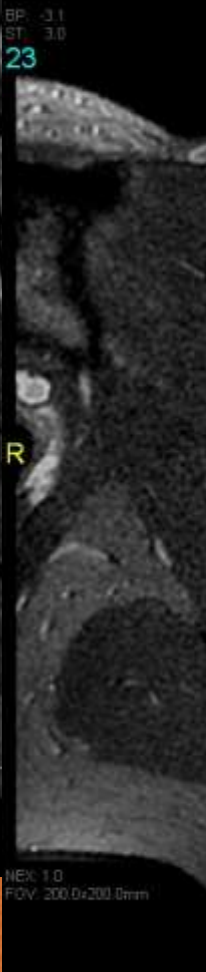
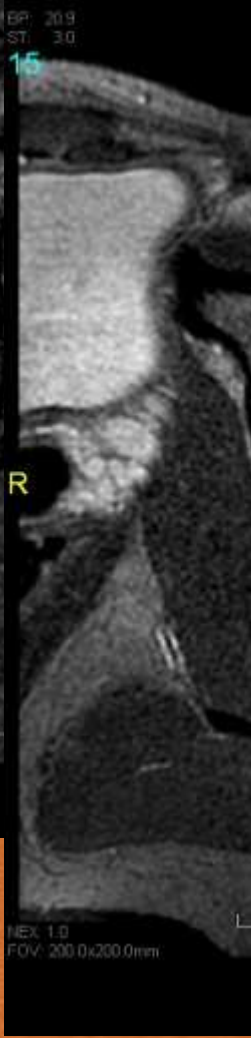
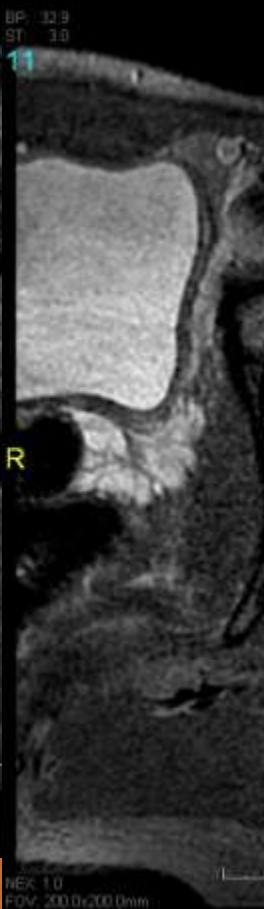
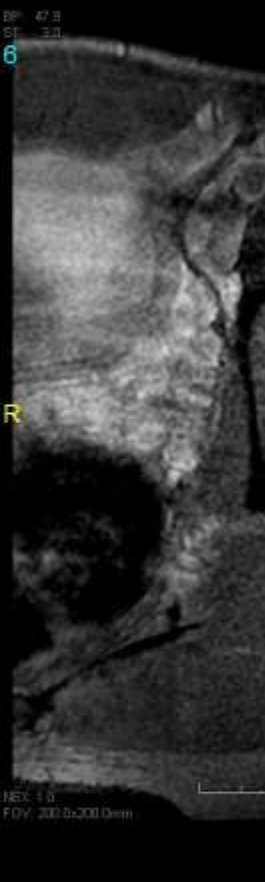
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!Teach_Lname , !Teach_Fname S WINDSOR REGIONAL HOSPITAL
DOB: 30-Dec-1899 111 SIGNA EXCITE MetCamp

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LT Cor frFSE T2 FS
24-Mar-2011 18:01
Image: 11





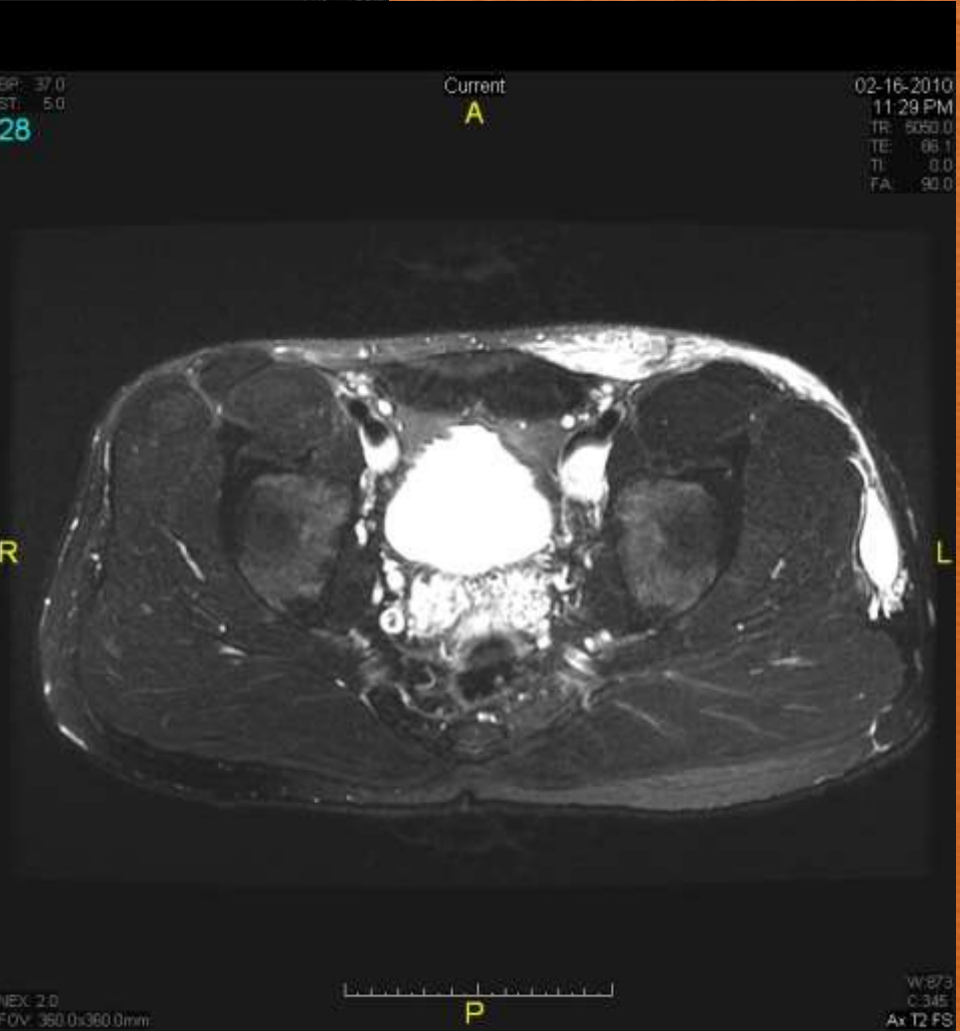
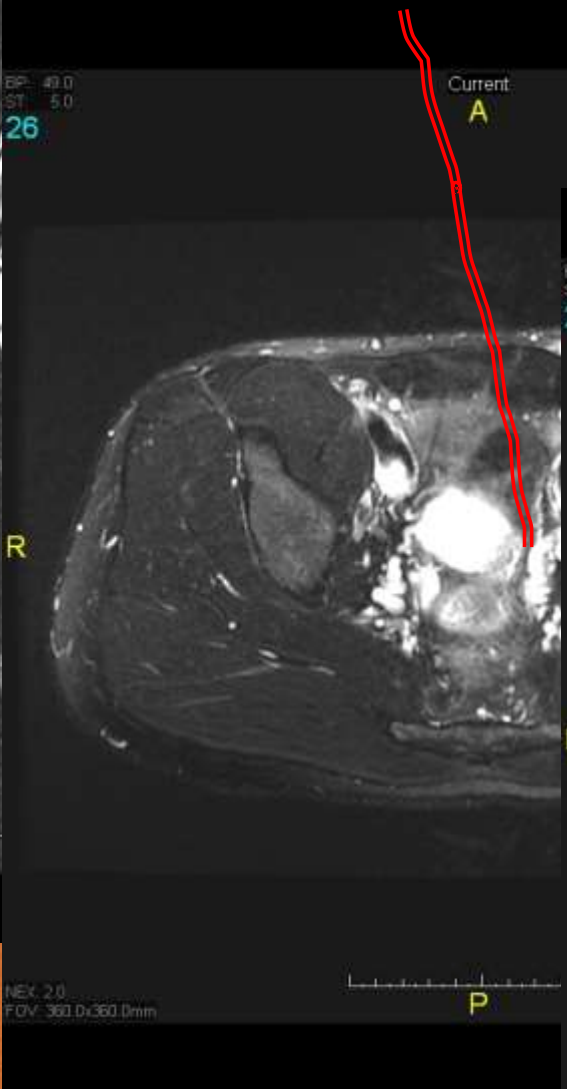
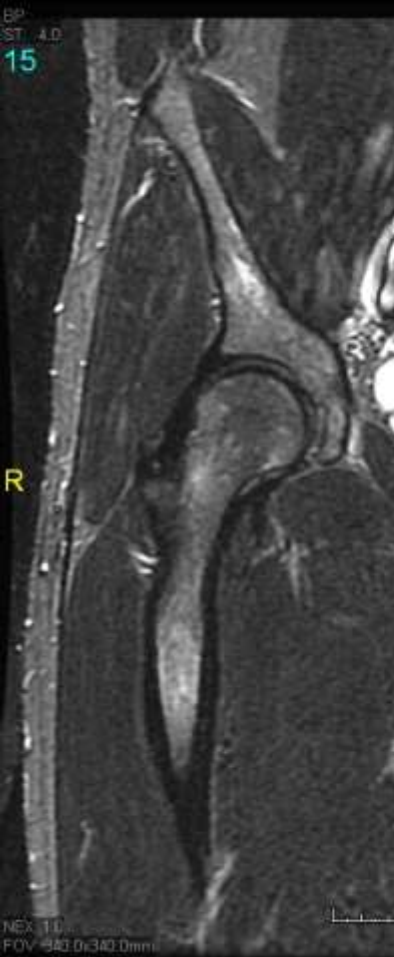
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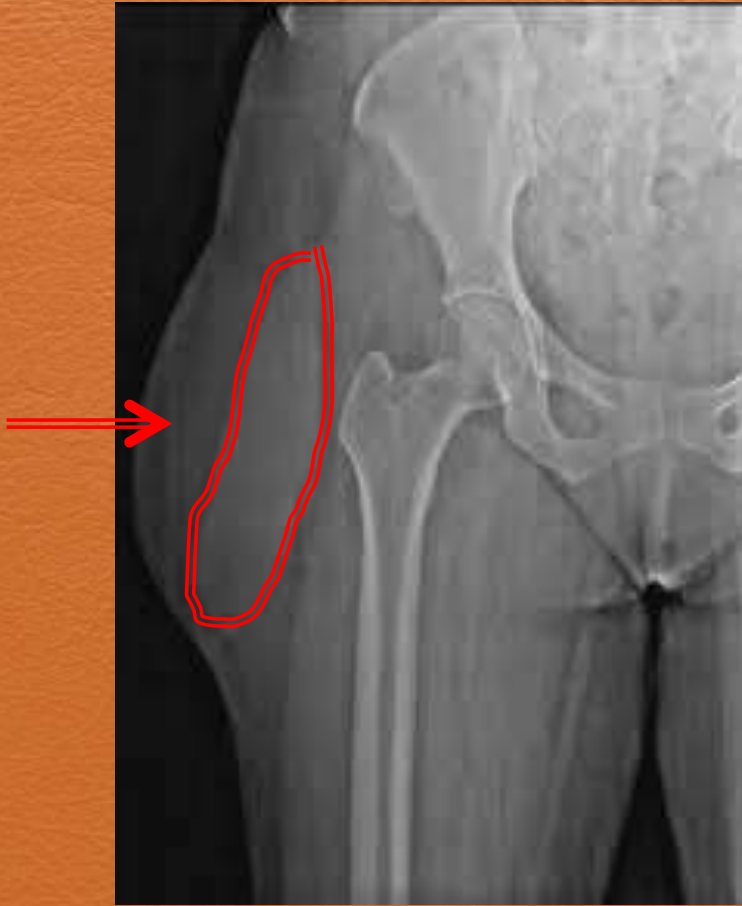
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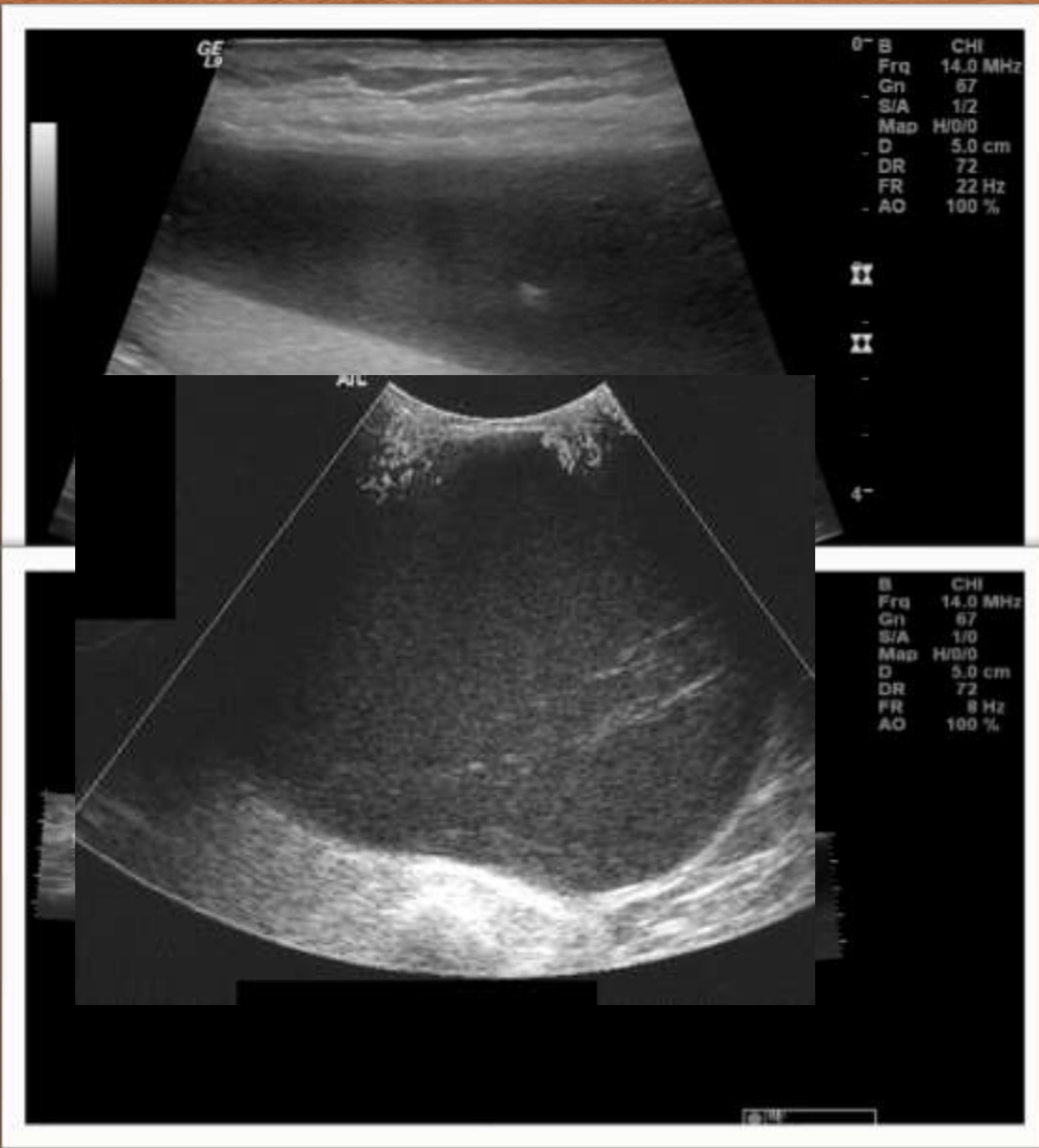
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COR PD F/S











Credits

Thank you to all the technologist, clerks, transcriptionists, students, radiologist that I worked with at the games and at the Windsor regional hospital, Oxford medical imaging, and ESR clinics.

None of the images in this presentation are from the actual athletes in the games.

Special Thank You

