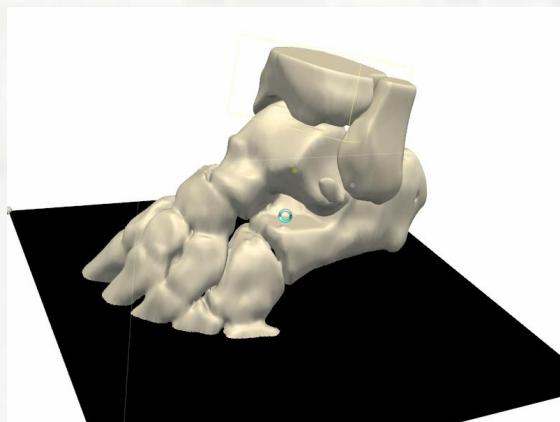


RÉUNION ÉLARGIE DE PERFECTIONNEMENT
EN CHIRURGIE ORTHOPÉDIQUE ET TRAUMATOLOGIQUE



ICONE Orthopaedics & Sports Trauma

Ultrasound ankle / foot



Ankle conditions

- Posttraumatic impingement
 - Bone spurs
 - Scar impingement
 - Loose bodies
- Tarsal tunnel
- Ganglion / bursa/ tendinitis
- Instability tendon /ligaments
- Arthritis / Gout



Achilles tendon pathology

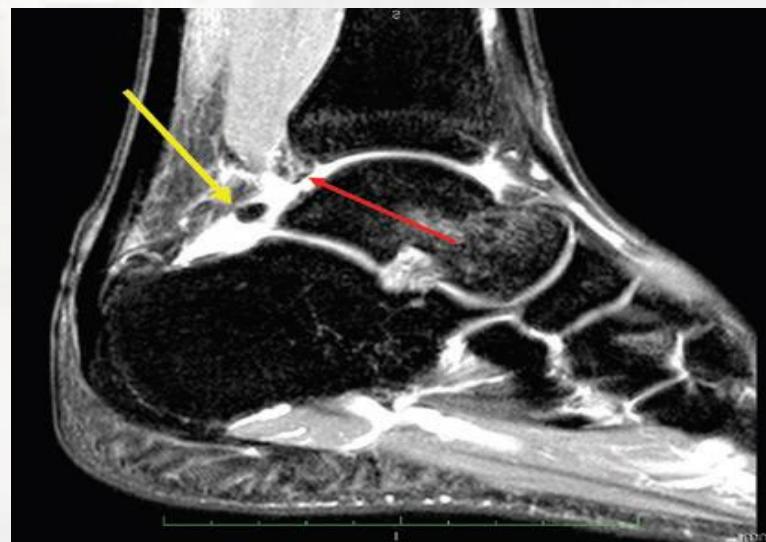
- 1.Achilles tendinitis
- 2.Achilles partial degenerative rupture
- 3.Achilles tendon insertional tendinopathy
- 4.Haglund exostosis bone impingement
- 5.Bursitis
- 6.Retrocalcaneal bursitis
- 7.Posterior ankle impingement



Diagnose met echo

• Bursitis	INJ	DYN
• Tendinitis	INJ	DYN
• Impingement	INJ	DYN
• Adhaesions	INJ	DYN
• Syndesmosis	INJ	DYN
• Loose body	INJ	3D

Achilles tendon



Achilles tendon bursa



Ankle trauma in sports

Ligaments

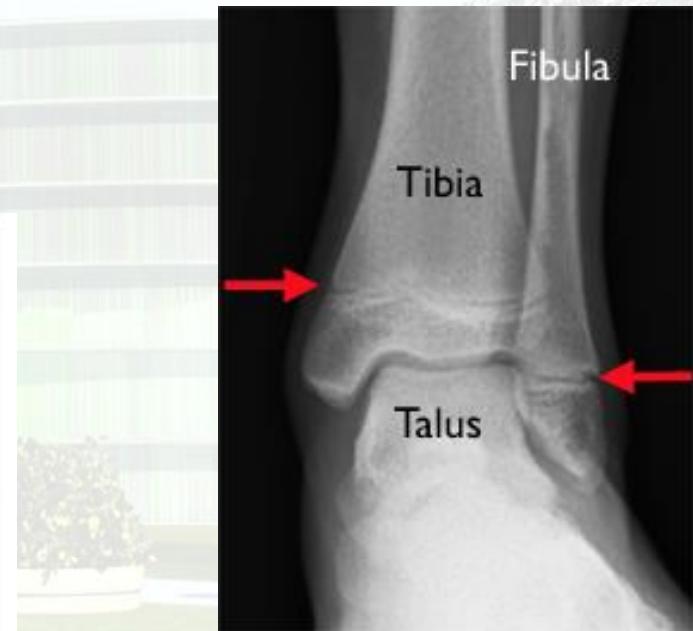
Fractures

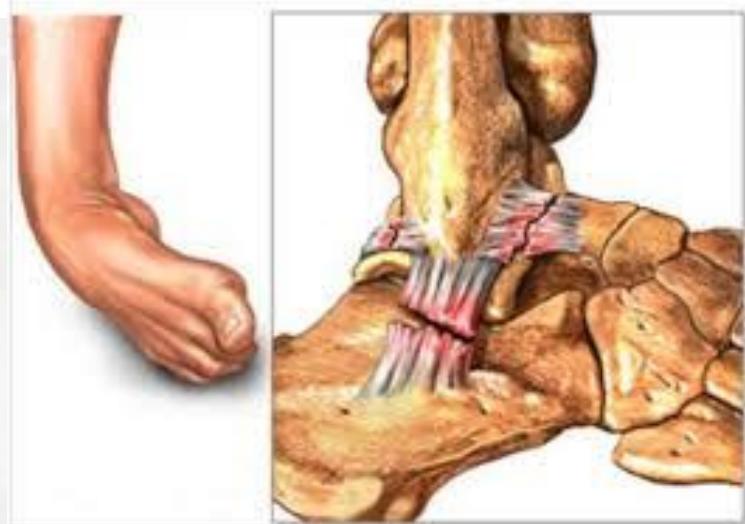
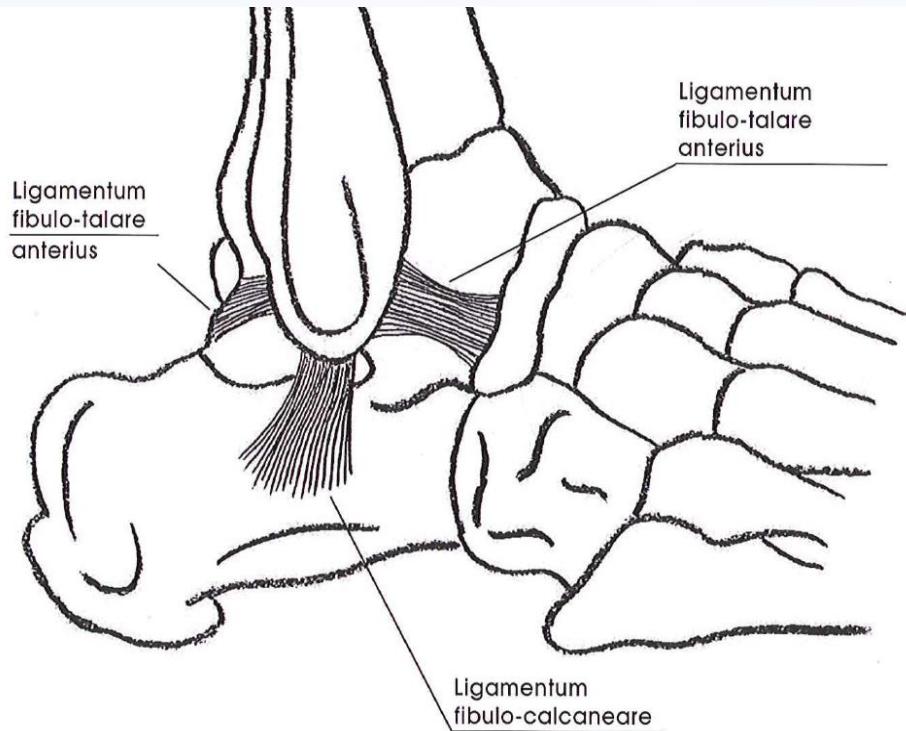
Syndesmosis

Growth plate injury



Occult widening is an insensitive finding for syndesmotic widening such that only the absence of tibiofibular overlap correlates with a syndesmosis disruption on radiographs (double arrow). Medial clear space widening greater than 4 mm correlates with deep deltoid ligament disruption (single arrow).





MRI acute ankle trauma



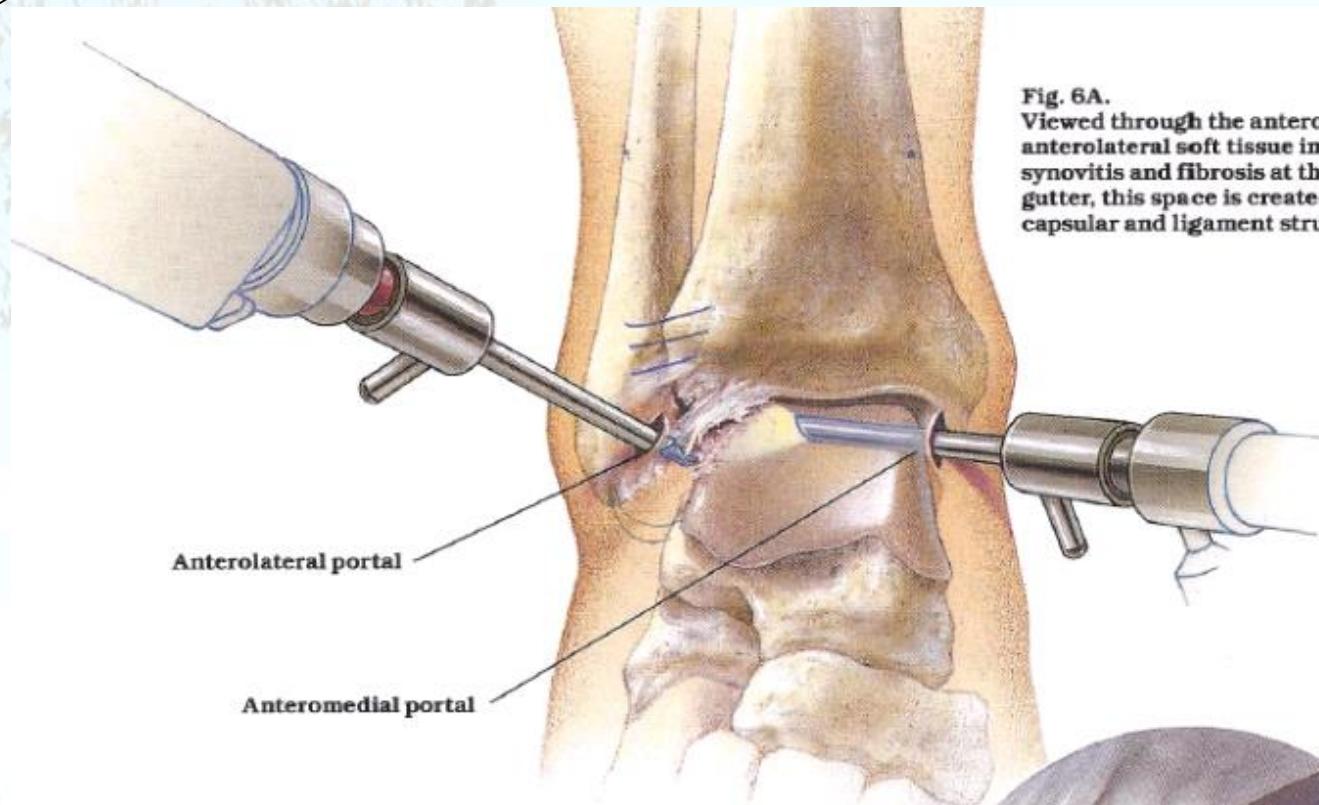


Fig. 6A.

Viewed through the anteromedial portal, anterolateral soft tissue impingement with synovitis and fibrosis at the anterolateral gutter, this space is created by the bony capsular and ligament structures.

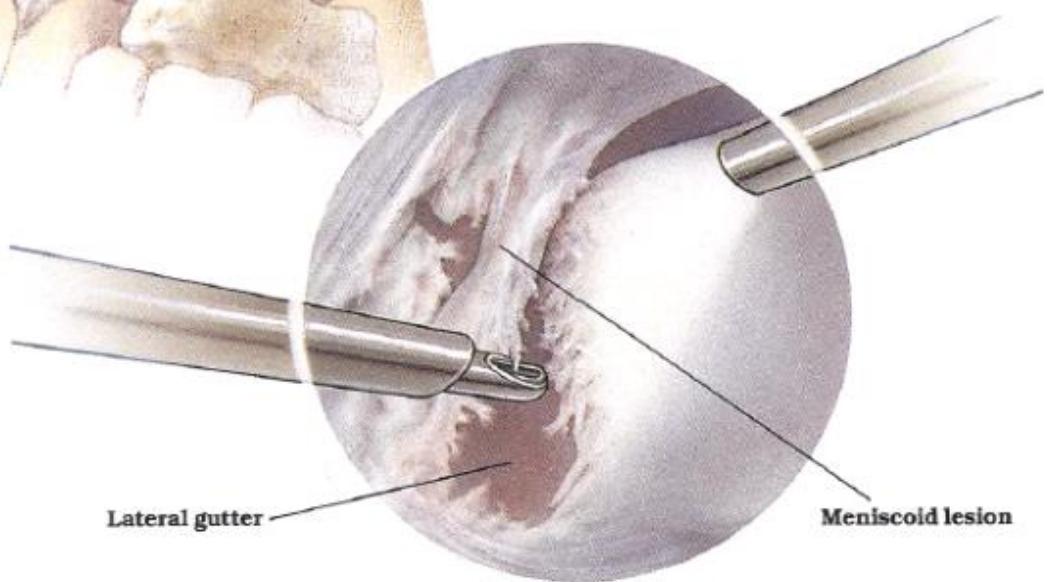
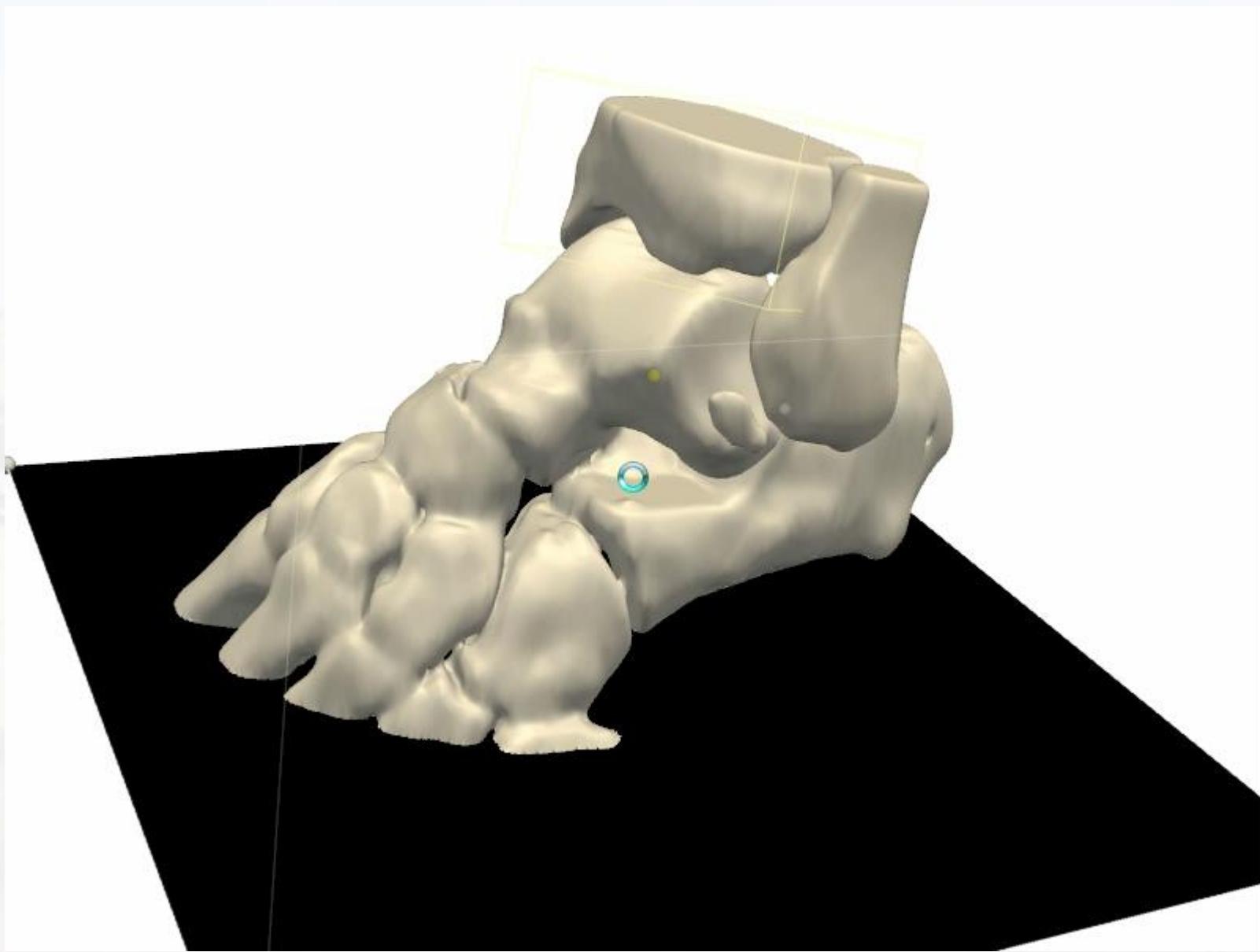
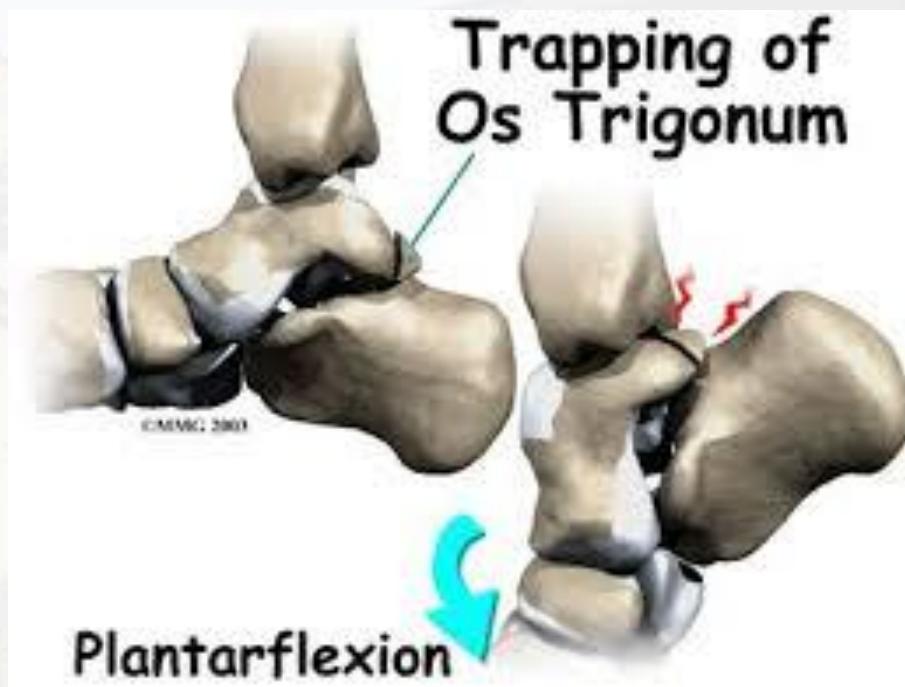


Fig. 6B.

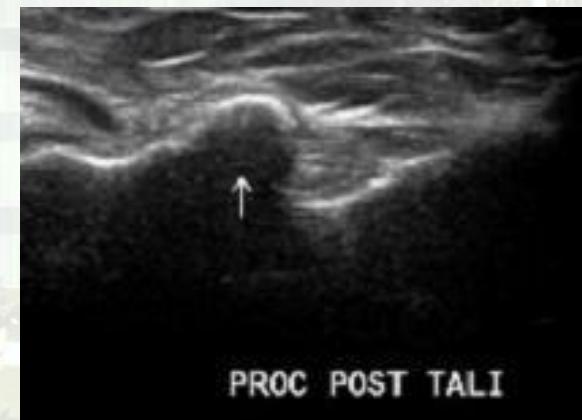
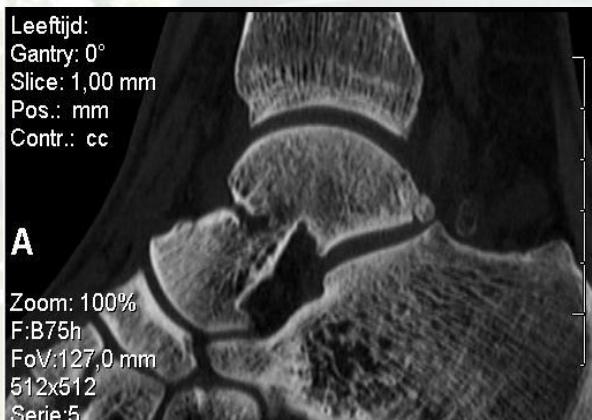
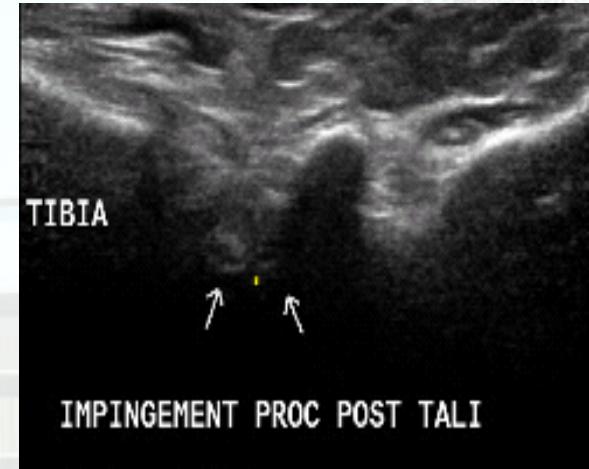
A 2.9 mm full-radius shaver is in position through the anterolateral portal for synovectomy and debridement.



Os trigonum injury



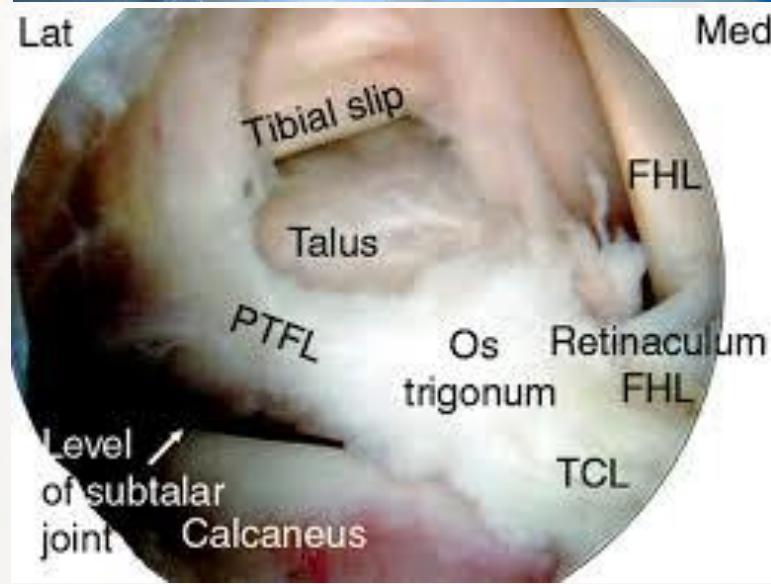
DYNAMIC HAND-HELD ULTRASOUND SCANNING DIAGNOSIS IN POSTERIOR IMPINGEMENT OF THE ANKLE



Dynamic ultrasound posterior impingement



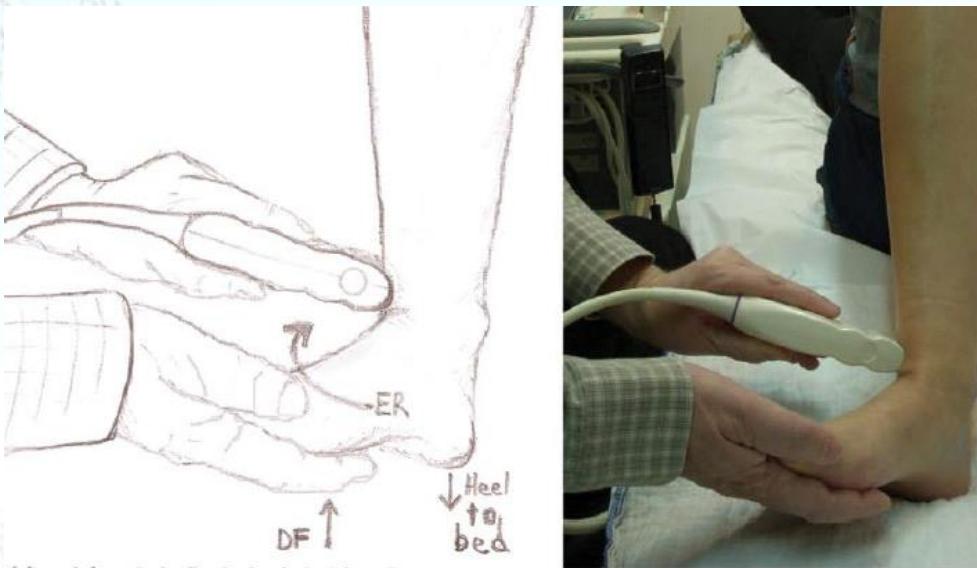
Anterior vs posterior arthroscopy



Syndesmotic lesion



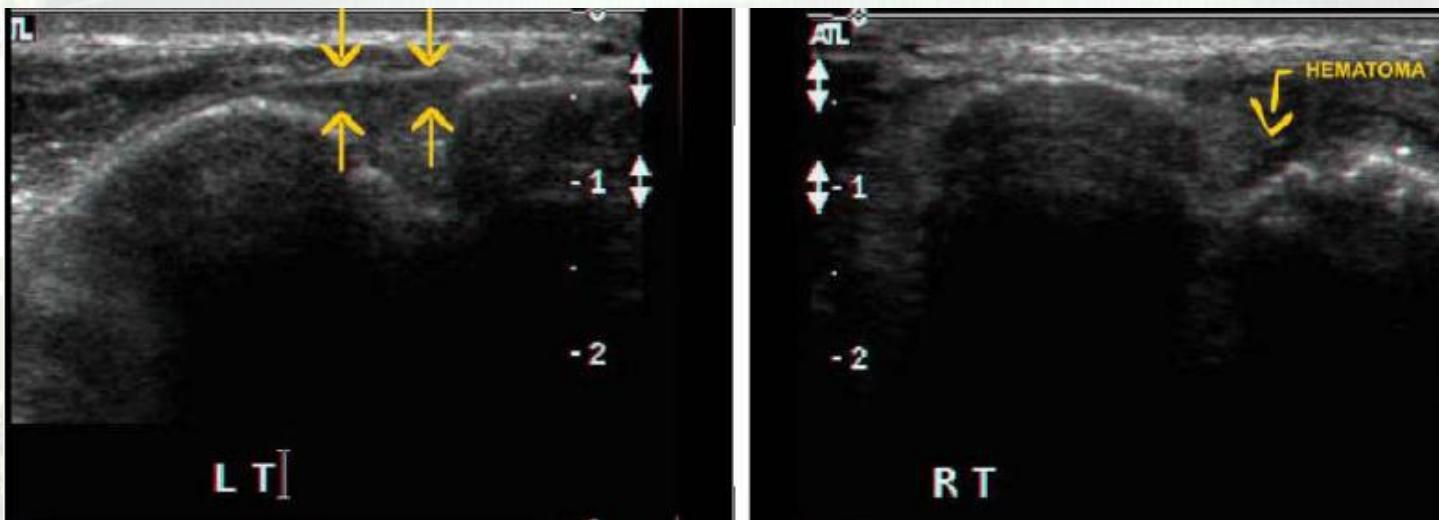
A Dynamic Ultrasound Examination for the Diagnosis of Ankle Syndesmotic Injury



With a cutoff point of 0.9 mm, the measured difference between external rotation (ER) of both injured and uninjured ankles showed a specificity of 100% and sensitivity of 100%

With a cutoff point of 0.4 mm at the injured anteroinferior tibiofibular ligament (AITFL) only, the Δ measured between the external rotation (ER) and neutral (N) positions ($\Delta = ER - N$) showed a specificity of 89% and sensitivity of 89%

*Center for Sport Medicine
Sciences and Research, Wingate Institute, Netanya, Israel*





ICONE

Girl 11 years gymnast

Injury 2011

Recurrent pain after weight loading

Impossible sports participation

Conservative treatment , fysio / bracing

2011 injury



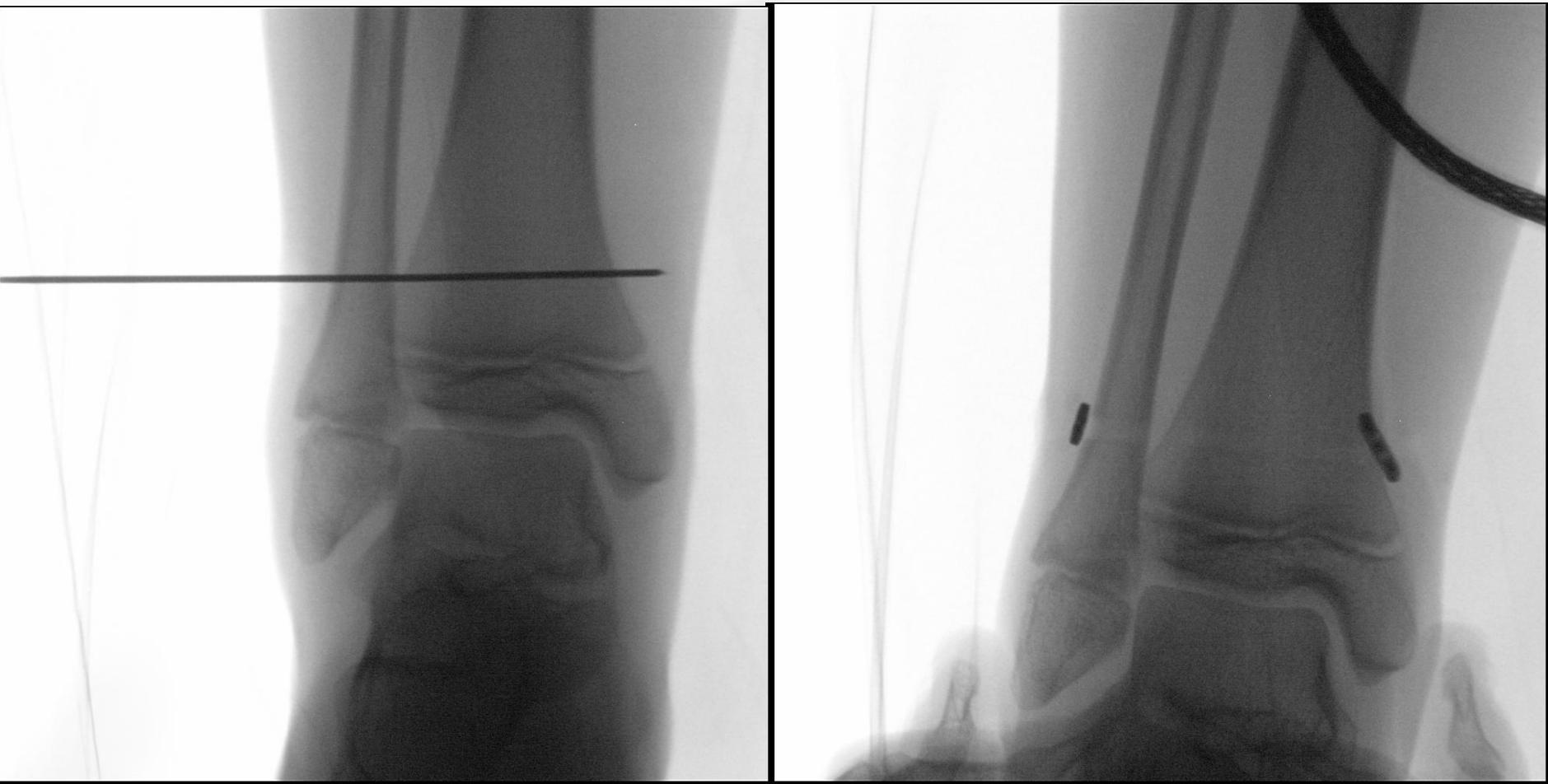
X ray 2015



Dynamische Ultrasound Ankle

Dynamic High Resolution
stress Ultrasound of the
Syndesmotic Ankle Injury

Tension rope fixation syndesmosis



2 yrs after



Conclusion

- Ankle and foot dynamics
- Intervention possible and improved positioning for injection
- Syndesmose/ Impingement