



# Heel Pain

Stuart Cardon DPM FACFAS

I am not a consultant or receive  
financial benefit from any medical  
company

# What's the difference?

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- Pediatric heel pain
- Adult heel pain



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# The Calcaneus



# Development



Apophysis begins developing in females at 5 years and males at 7 years with the cap occurring at 10 years of age on average





When walking the ground reactive force through the calcaneus is 4X's body weight and with running can be up to 10 X's.

The force through the achilles tendon is still under investigation in walking or running.



# Pediatric heel pain

## DIFFERENTIAL DIAGNOSIS

Calcaneal apophysitis

Tarsal coalition

Plantar fasciitis

Calcaneal stress fracture

Osteomyelitis

Benign lesions of the calcaneus

Malignant lesions of the calcaneus

# Calcaneal Apophysitis (Sever's)



## DIAGNOSIS AND TREATMENT

History

Exam

X-ray

REST, ICE, NSAIDS, HEEL  
CUPS

IMMOBILIZATION

ACTIVITY MODIFICATION

# Tarsal Coalition



Middle facet of the  
subtalar joint

History

Exam

Imaging

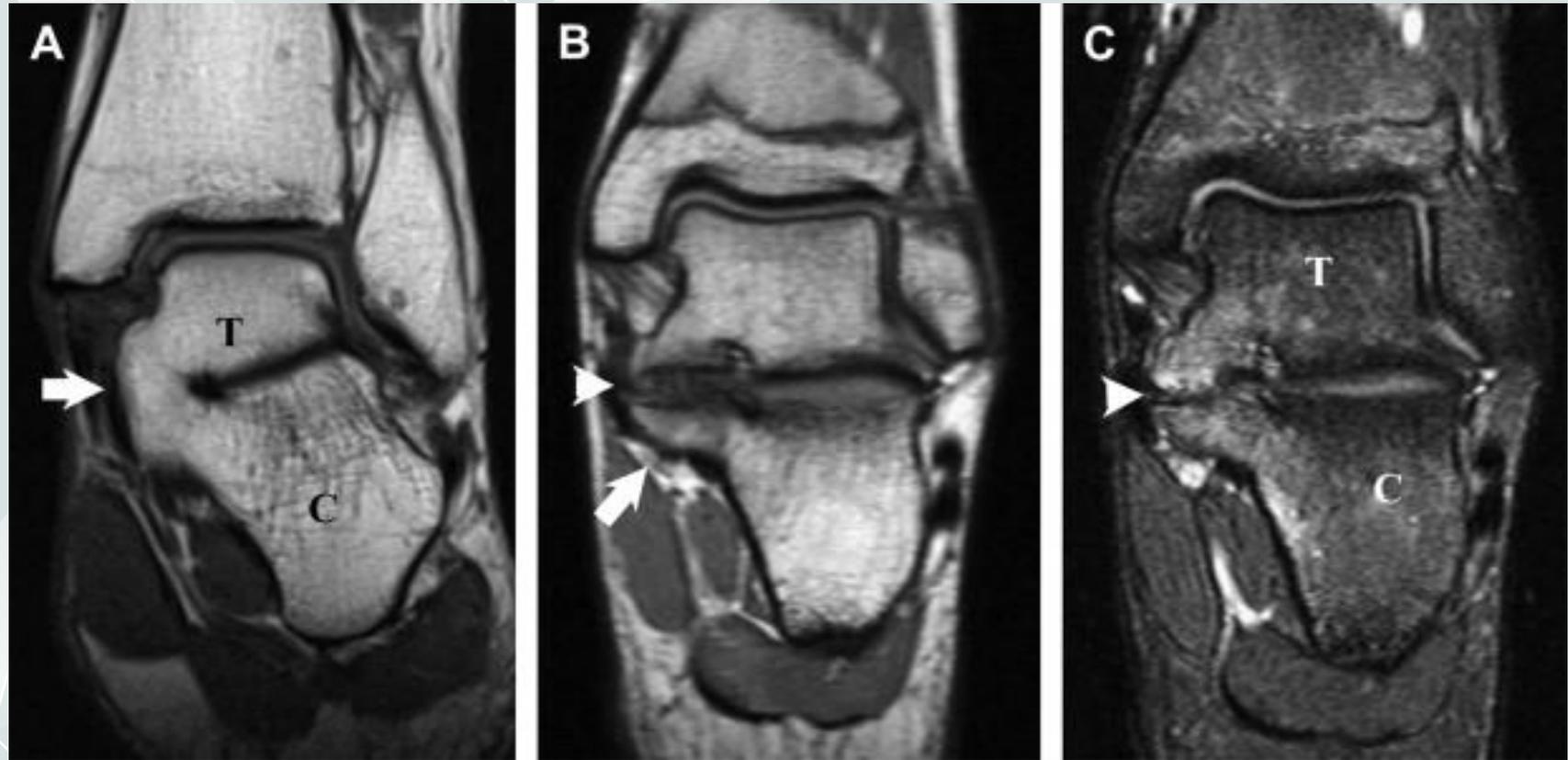
Treatment

Immobilization

Orthotics

Surgery





# Plantar fasciitis

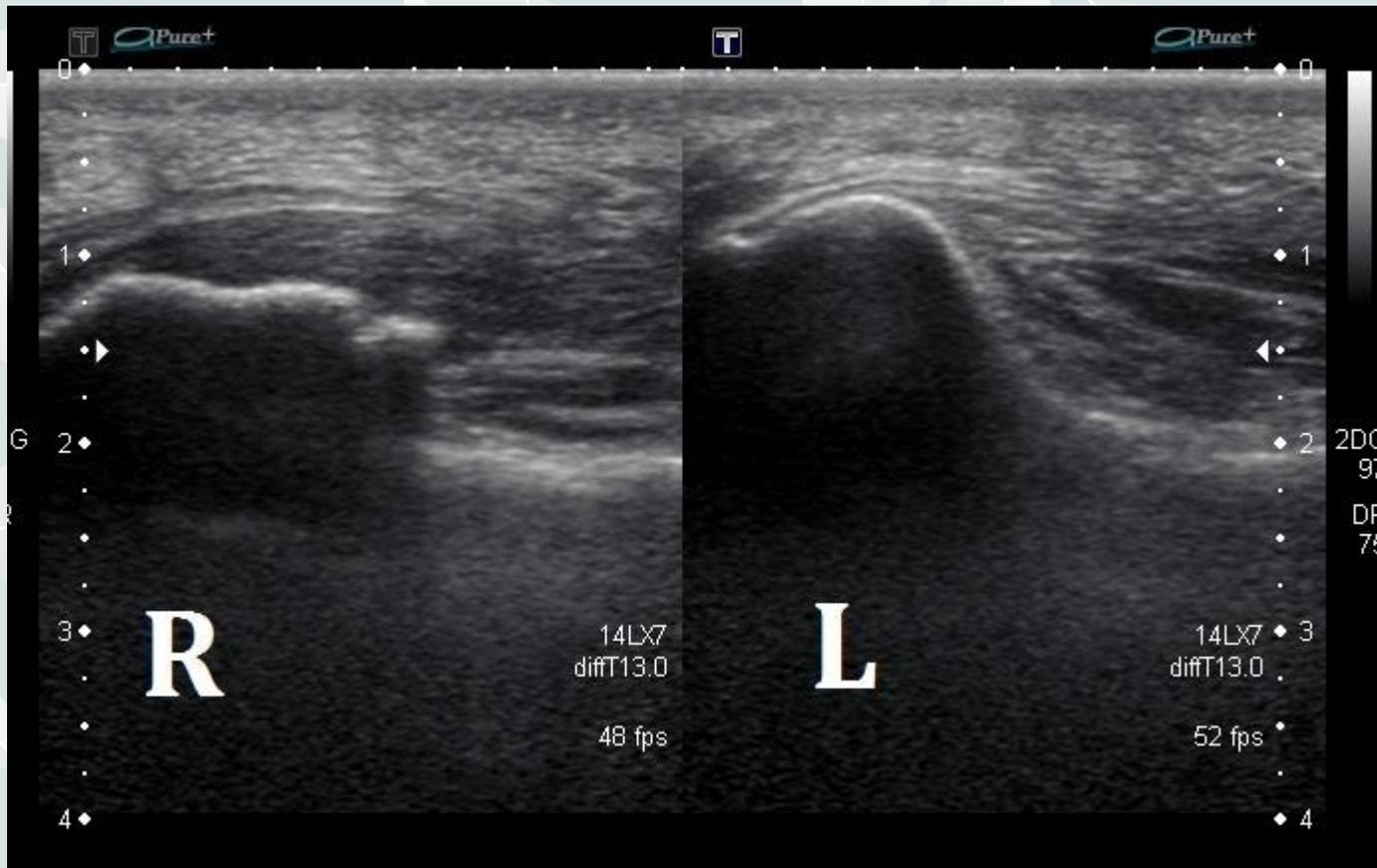
History

(Post static dyskinesia)

Exam

(Ultrasound)

Treatment



# Calcaneal Stress fracture

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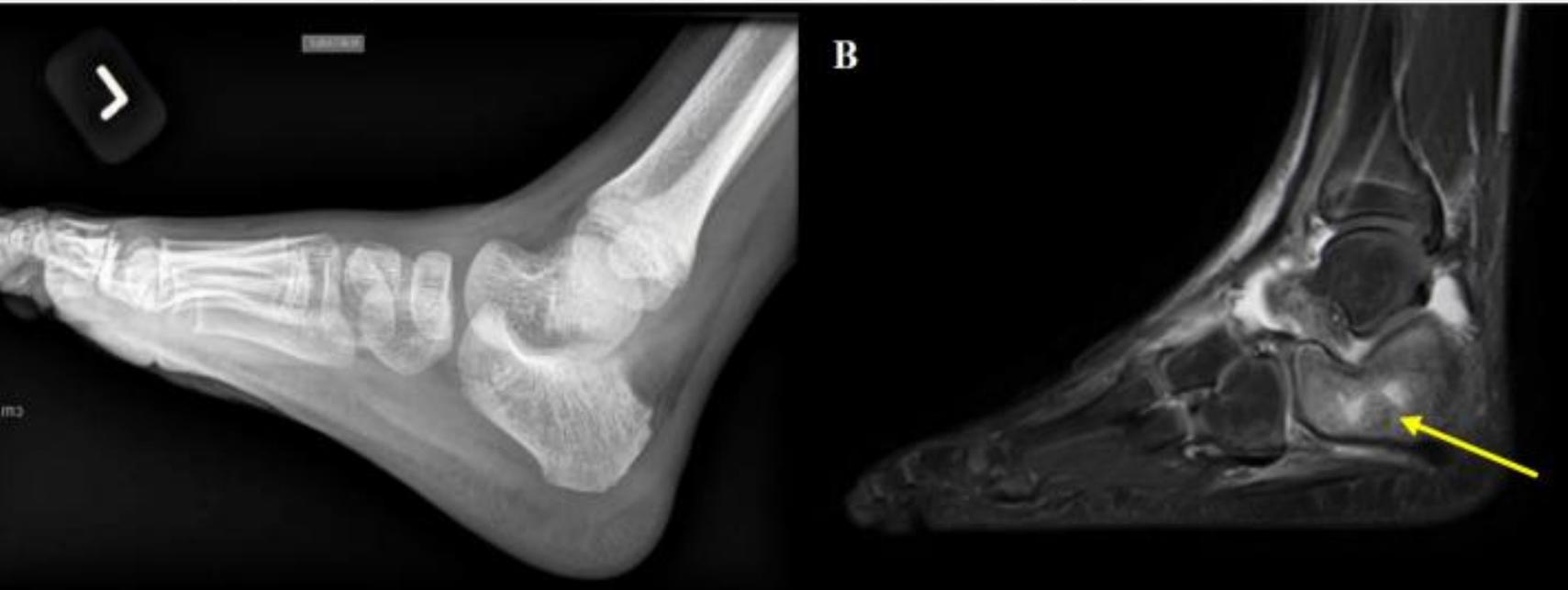
History

(year round sports)

Exam

(similar to Sever's)

Treatment



# Osteomyelitis

Acute hematogenous  
osteomyelitis

History

Diabetes, sickle cell anemia,  
hemoglobinopathies

Exam

Generalized bone pain with  
fever



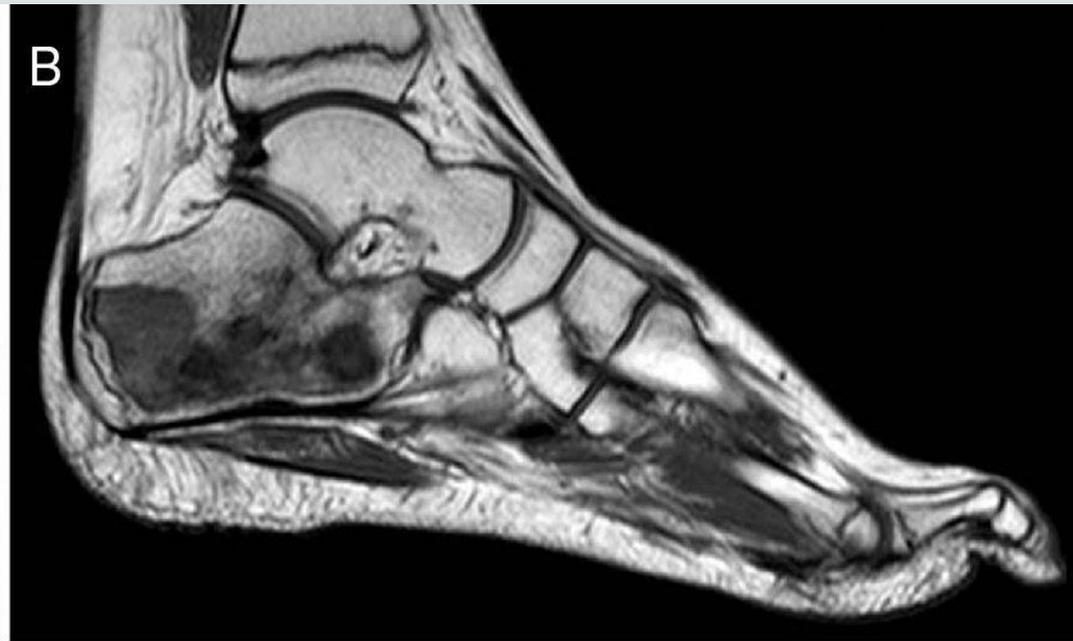
## Benign lesions of the calcaneus

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Osteoid osteoma

Unicameral bone cyst

Aneurysmal bone cyst



## Malignant lesions of the Calcaneus

Ewings Sarcoma

Osteosarcoma

Extremely rare

# Adult heel pain

Differential Diagnosis

Fasciitis

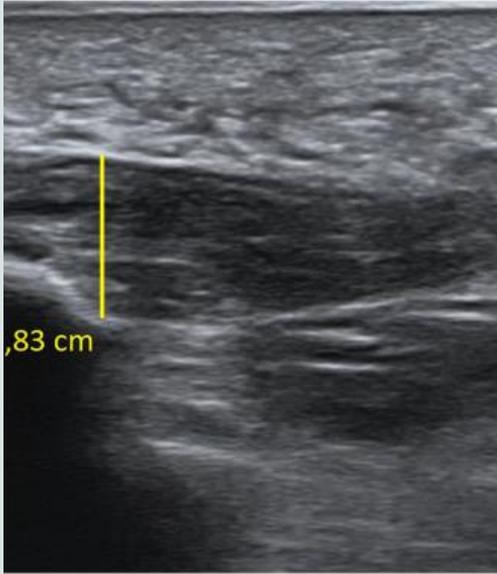
Achilles tendonitis

Stress fracture

Benign lesions

Malignant lesions





- Does the spur matter?



# Plantar fasciitis

History  
Exam  
Treatment



# Treatment

Ice, NSAIDS, stretching achilles, night splint  
rest.

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Injections

Steroids, PRP, Growth factors

Extracorporeal shockwave

Laser

Microdebridement

Gastroc lengthening

ORTHOTICS?



# Achilles Tendonitis

Insertional  
Myotendinous juncture  
Bursitis  
Calcific  
Haglunds



# Treatment options

Rest, NSAIDS, PT, Immobilization

PRP, Growth factor injections

Microdebridement

Graft

Removal of spurs or offending bone

# The Family

