

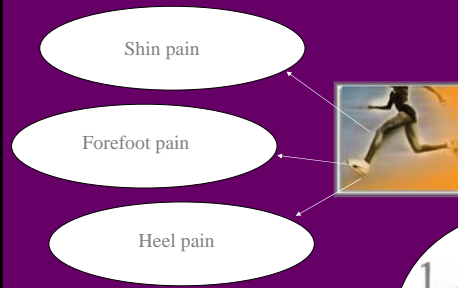
Common Foot Injuries in the Athlete

Presentations, Risks and Management

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Common foot injuries in the athlete



Heel pain

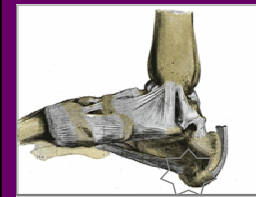


Heel pain

Plantar heel pain syndrome

Lemont killed plantar fasciitis

Anatomy and function



Presentation and risks

- Common signs and symptoms (Differential diagnoses)
- Common risk factors
 - Distal vs. proximal



Heel pain

Current evidence

- Extrinsic vs. intrinsic
- Inconclusive scientific support for excessive GRF or arch mechanics (Wearing et al, 2006)
- DF <0° DF odds ratio of 23.3, risk increases as DF decreases (Riddle et al, 2003)
- Pronated foot posture based on FPI (Irving, Cook, Young and Menz, 2007)
- Many others (Rome, 2005)
- Non uniform loading has been shown in achilles and patellar tendon entheses undergoing degeneration (Lyman, et al 2004; Almekinders et al, 2002)
- Possibility of differential strain (+ bending + shear forces) within fascia due to mechanics and loading



Heel pain

Management

- Basic conservative therapy:
 - RICE
 - Stretches
 - Cryotherapy
 - NSAIDs
 - Strapping
- Shoes
- Cross training
- When to refer



Heel pain

Additional podiatric management

- Padding and strapping
- Orthoses
- Footwear advice and mods
- Exercises
- Return to activity

Heel pain

Additional podiatric management

Recalcitrant cases:

- Splints
- Prolotherapy
- Cortisone
- ECSWT
- Surgery

Shin pain

Shin Pain

Medial tibial stress syndrome

No one can kill shin splints

Anatomy



Presentation and risks

- Common signs and symptoms (Differential diagnoses)
- Common risk factors
- Pathomechanics

Shin pain

Current evidence

- Traditionally believed microtrauma to periosteum and fascial attachments
- Some MRI studies have not supported this (e.g. Jonell, 1982; Fredericson et al, 1996)
- Evidence is now suggesting bending moments to distal tibia (Beck, 1998)
- Role of tibial, rearfoot and forefoot varus and excessive foot pronation?
E.g. Yates and White (2004) using FPI

Shin pain

Management

- Basic conservative therapy
 - RICE
 - Cryotherapy
 - NSAIDs
 - Soft tissue massage
 - Strapping
 - Cross training
- Longer term considerations
 - Eliminate training errors
 - Stretch and strength
 - Correct mechanical issues
 - Surface and shoes
 - Hormonal and nutritional considerations

Shin pain

Additional podiatric management

- Padding and strapping
- Orthoses
- Footwear advice and mods
- Exercises
- Return to activity

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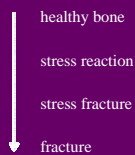
Forefoot pain

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Forefoot Pain

Repetitive stress injury of bone

The spectrum of stress injuries



Presentation and risks

- Common signs and symptoms (Differential diagnoses)
- Common risk factors

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Forefoot Pain

Management

- Rule out #
- Rest and modified activity/Cross training
- WB or Boot? Hockenbury and Todd (1999)
- LIPUS: Li et al (2007), Brand et al (1999)
- ECSWT: Taki et al (2007) case report of 5 participants
- Re-scan?
- Phased return to activity
- When to refer

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Forefoot Pain

Additional podiatric management

- Padding and strapping
- Orthoses
- Footwear advice and mods
- Return to activity
- Exercises

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Thank you

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