

Turf Toe

See also Plantar Fasciitis and Big Toe Pain

Background

1. Plantar capsular strain of 1st metatarsophalangeal joint
2. Hyperextension injury
3. 3rd most common injury causing loss of playing time for athletes

Pathophysiology

1. Forced hyperextension/ axial loading w/subluxation/ joint capsule damage
2. May result in dorsal metatarsal head compression injury
3. Predisposing factors
 - Artificial playing surface
 - Incr ankle dorsiflexion
 - Flexible footwear
4. Sports
 - Football
 - Soccer
 - Basketball
 - Track/ runners
 - Dance
 - Rugby

Diagnostics

1. Tenderness, redness, swelling at metatarsophalangeal joint
2. Grading system
 - Grade 1 sprain
 - Stretch injury to capsuloligamentous complex
 - Minimal symptoms
 - Grade 2 sprain
 - Partial tear
 - Ecchymosis
 - Pain w/wt bearing
 - Restricted motion
 - Grade 3 sprain
 - Complete tear
 - Plantar plate disruption from metatarsal head
 - Unable to bear wt
3. X-ray
 - AP, lateral, oblique
 - Sesamoid may migrate proximally
4. MRI: may be used in elite/ professional athletes

Therapeutics

1. RICE
2. NSAIDs
3. Avoid taping in acute phase
4. Follow-up care
 - Grade 1 sprain: taping, stiff insole to restrict forefoot motion

- Grade 2 sprain: as above; 2-14 days rest w/crutch use
 - Grade 3 sprain: boot or cast immobilization; 2-6 wks rest
5. Surgical referral: large capsular avulsions

Prognosis

1. Return to play
 - Grade 1 sprain: return immediately; mild pain
 - Grade 2 sprain: after rest period ok to play w/mild pain
 - Grade 3 sprain: 50-60 degrees of passive dorsiflexion w/o pain
2. Complications
 - Chronic pain
 - Hallux rigidus
 - Loss of push-off strength
 - Traumatic bunion deformity
 - Loose joint bodies
 - Cock-up deformity

Patient Education

<http://healthlibrary.epnet.com/GetContent.aspx?token=0d429707-b7e1-4147-9947-abca6797a602&chunkid=11485>

References

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