Best Practice Recommendations

A series of evidenced-based guidelines to improve your patient care, provided by the developers of ATGenius.com.

PLANTAR FASCIITIS

Each Best Practice Recommendation includes key elements to evaluating or treating the condition, a Strength of Recommendation (SOR) grade based on research quality, and supporting evidence.

Best Practice Recommendation #1: RISK FACTORS

Middle-aged individuals and those who are female, overweight, or have arch abnormalities are at a higher risk for plantar fasciitis. SOR:B (level 2 evidence including retrospective cohort and case-control study designs)

- The peak incidence of plantar fasciitis occurs between 45-64 years and is more common in women.[1,2]
- Individuals with pes planus, pes cavus, distance runners, military personnel, women and those who are obese or sedentary are more prone to plantar fasciitis. [2-4]
- Over 80 percent of patients with plantar fasciitis have excessive pronation.[5]
- A BMI >30 carries over 5 times the risk for developing plantar fasciitis than a BMI < 25.[3]

Best Practice Recommendation #2: DIAGNOSIS

Plantar fasciitis can be diagnosed based on a history and clinical exam without the use of imaging. SOR:C (level 3 evidence including usual practice)

- Patients typically present with medial plantar pain that is most intense the first few steps in the morning.[6,7]
- Classic exam findings include pain with palpation of the medial plantar aspect of the heel, and pain with passive ankle dorsiflexion, and/or extension of the toes.[7]
- Imaging is not necessary except in recalcitrant cases lasting more than 4 months.[7]
- A heel spur does not necessarily cause heel pain. Only 40% of those with a heel spur on x-ray have heel pain.[5]

Best Practice Recommendation #3: TREATMENT & REHABILITATION

Supportive measures such as taping, OTC shoe inserts and customized orthotics are effective means of treatment. SOR:A (level 1 evidence including prospective study design and randomized control trial)

- Initial low-dye taping for two months followed by orthotic use provided fair to excellent results for 70 % of patients at 3 months post-injury, superior to corticosteroid injection or heel cup.[8,9]

- Both prefabricated shoe inserts and customized orthotics are significantly beneficial for pain reduction upon long-term follow-up.[10,11]

- Calcaneal taping from the heel to the MTP joints provides significant pain reduction and is more effective than stretching.[12]

Tension night splints are beneficial adjuncts to conservative treatment measures. SOR:B (studies of high quality but some inconsistent results)

- When used in combination with other conservative measures, a tension night splint is an effective treatment of plantar fasciitis.[13]

- Tension night splint use does not appear to provide significant benefit over home exercise, but can provide an earlier reduction in pain and dysfunction[14]

Cryotherapy, stretching and oral NSAIDs should be incorporated into a conservative treatment plan SOR:A (level 1 evidence including prospective study design and randomized control trial)

- The addition of therapeutic ultrasound does not appear to improve conservative treatment efficacy and demonstrates a 24% success rate.[15,16]

- Stretching of the Achilles tendon, plantar fascia, and intrinsic foot muscles improves pain.[12,17]

- Oral NSAID use reduces pain and disability when added to a conservative treatment plan that includes stretching and night splinting.[18]

- Intermittent ice application is superior to heat application.[19]

Corticosteroid injection can improve short-term pain if non-invasive measures fail. SOR:A (level 1 evidence including randomized control trials)

- Corticosteroid injection improves pain at one month but not at 6 months, and carries a 10% incidence of plantar fascia rupture.[20,21]

- Corticosteroids are more effective than placebo injections and possibly less effective than platelet-rich plasma injection for long-term pain reduction.[22]

- Corticosteroids are more effective than non-invasive treatments in the short-term within 3 months.[23]

- Corticosteroid injection is more effective than oral NSAIDS.[24]

- Corticosteroid injection is effective within the first 3 months but loses its effectiveness with long-term follow-up at 36 months.[25]

Some data indicates extracorporeal shock wave therapy (ESWT) can reduce pain. SOR:B (inconsistent results)

- Limited data suggests ESWT can provide a statistically significant improvement in symptoms when added to standard therapy.[26]

- ESWT demonstrated a 65% success rate among those with recalcitrant heel pain 6 months or longer.[16]

Most cases of plantar fasciitis do not require surgery. SOR:C (references include level 3 evidence of clinical practice guidelines)

- 85-90 percent of patients can be successfully treated without surgery.[27]

- Plantar fasciotomy is indicated only after 6-12 months of conservative therapy has failed.[28]

- Surgical procedures have a 70-90 % success rate.[29,30]

Information researched and provided by Casey Christy, DAT, ATC, CSCS, Co-Developer, ATGenius.com. Treatment decisions should be made based on the best available evidence, patient preference, and clinician expertise, in consultation with, and at the direction of a physician.

See our other best practice documents:

- **Acromioclavicular Joint Injuries**
- **ACL Injuries**
- **Abdominal Injuries**
- **Shoulder Dislocations**

References

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