



@physicaltherapyresearch

RAPID RESEARCH

January 2023

Inside This Week: Plantar Fasciitis; *An Update on the Most Common Cause of Foot Pain*

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- ✓ Risk Factors for Plantar Fasciitis in Active People

 - ✓ Epidemiology, Evaluation, and Treatment of Plantar Fasciitis

 - ✓ Seasonal Variation in Plantar Fasciitis; Google Trends Search



RISK FACTORS FOR PLANTAR FASCIITIS IN ACTIVE PEOPLE

JANUARY 2023

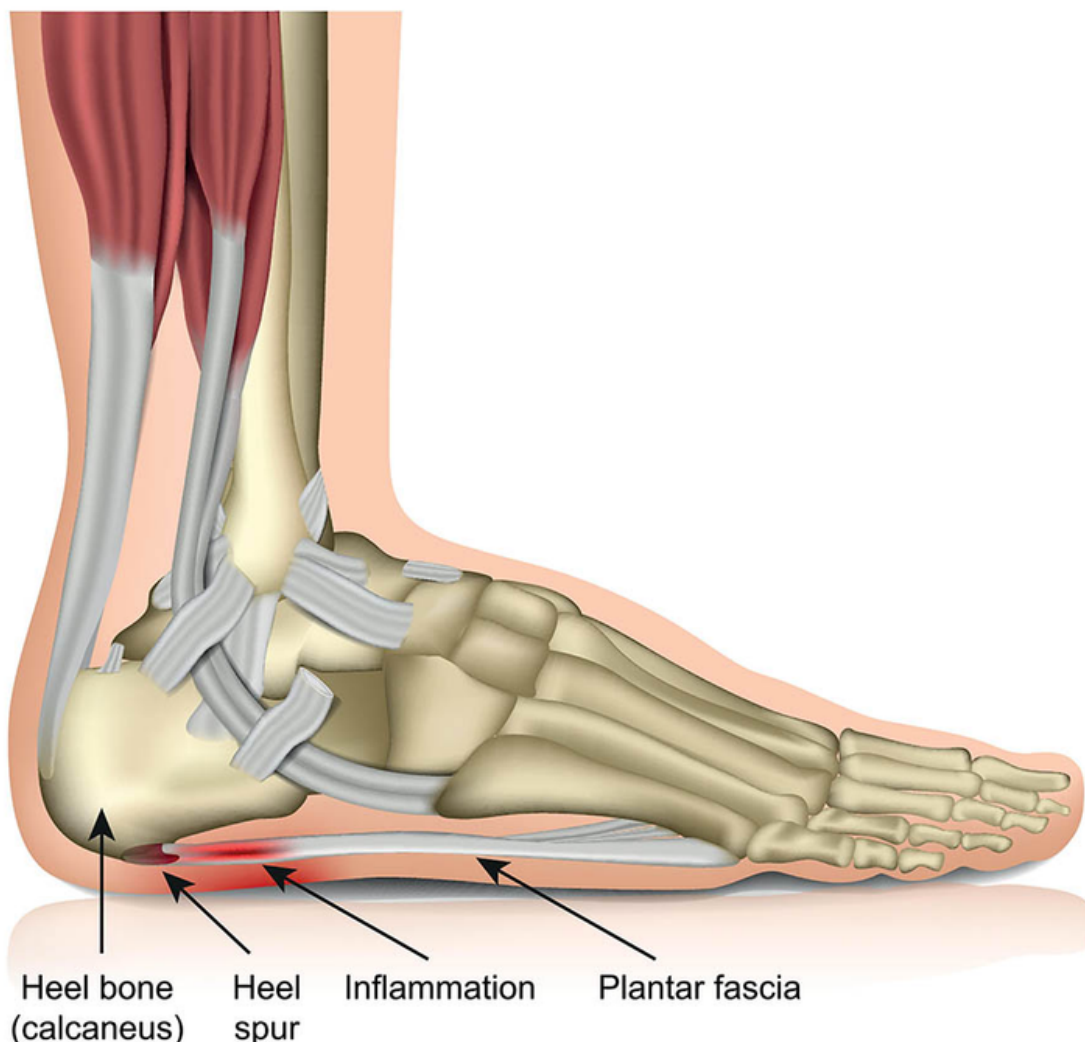
[Click for Full Text
\(Hamstra-Wright et al.
2021\)](#)

JBIR 10/11 [90%]



*see appx

This systematic review determined what factors may put physically active individuals at risk of developing Plantar Fasciitis (PF).



KEY FINDINGS

16 studies included, 801 participants, 11 risk factors incl.

Significant Risk Factors to Develop PF:

Increased plantar flexion ROM (avg 62 vs 56)

Increased BMI (avg 24 vs 22)

Increased Body Mass (avg 68kg vs 64kg)

Non-Significant Risk Factors:

Arch height index

Height

Static pronation

Training volume

Ankle dorsiflexion ROM

Q-angle

MAIN TAKEAWAYS

Primary risk factors for PF are increased plantar flexion ROM, BMI, and body mass.

These factors appear to place increased tensile load on the force-absorbing structures of the plantar surface of the foot.

These factors should be considered when creating prevention and treatment programs for PF.

Many other potential risk factors for PF exist but were unable to be comprehensively evaluated.

EPIDEMIOLOGY, EVALUATION, & TREATMENT OF PLANTAR FASCIITIS

JANUARY 2023

[Click for Full Text
\(Rhim et al. 2021\)](#)

JBI 11/11 [100%]



This umbrella review evaluated available evidence on plantar fasciitis to provide a detailed summary of evidence to clinicians to assist in clinical decision making and highlight gaps in knowledge of the topic of plantar fasciitis.



KEY FINDINGS

96 studies included

Epidemiology:

Common in 40-60 year olds.

Responsible for 15% of foot injuries in general population (athletic & non-athletic)

Incidence is highest amongst runners.

Most consistent risk factor is high BMI, along with weight-bearing activities.

Strength of hallux plantar flexion, lesser toe plantar flexion, ankle dorsiflexion, ankle inversion, and ankle eversion were lower in patients with plantar fasciitis.

Diagnosis:

Patient history & a physical exam is appropriate to evaluate for plantar fasciitis.

Ultrasound is best to evaluate outcomes and guide interventions, such as injections.

Treatment:

Corticosteroid, PRP, and ESWT have the largest number of studies.

Most reviews concluded long-term outcomes favored non-corticosteroid interventions.

ESWT provided better longer-term outcomes over most interventions studied.

MAIN TAKEAWAYS

This study is a comprehensive systemic summary of meta-analyses and systemic reviews on diverse topics such as the epidemiology, diagnosis, and treatment of plantar fasciitis.

Majority of reviews had high level of heterogeneity and included a small number of studies.

There is general consensus that BMI is a risk factor for plantar fasciitis. Also, that ESWT and PRP both appear to be safe and effective in longer-term outcomes.

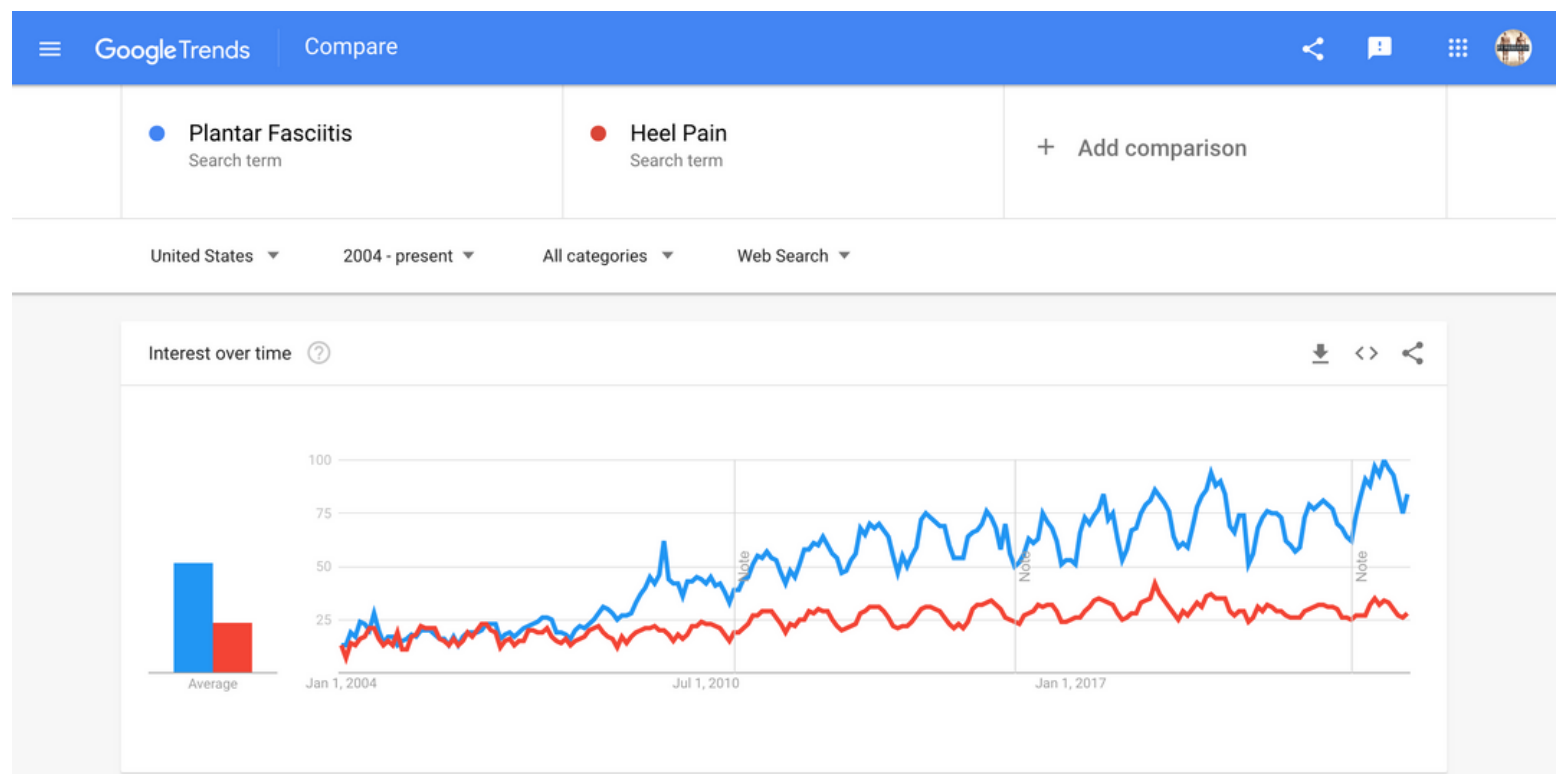
Evidence on topics such as the epidemiology, exercise therapy, or cost-effectiveness of treatment options for plantar fasciitis are limited compared to other topics and may warrant future research.

SEASONAL VARIATION IN PLANTAR FASCIITIS; GOOGLE TRENDS SEARCH

JANUARY 2023

[Click for Full Text \(Hwang et al. 2022\)](#)

This study evaluated the seasonal variation in plantar fasciitis and related symptoms in various countries using the search volume data from Google Trends.



Authors performed a Cosinor analysis to assess the seasonality of plantar fasciitis-related search volumes.

Cosinor analysis uses a sinusoidal equation and statistical significance to calculate if any seasonal trend is likely.

Statistically Significant Seasonal Patterns for the search “plantar fasciitis” in:
USA, Canada, U.K., Ireland, Australia & New Zealand

Search peaks were observed during summer

Search troughs were observed during winter

MAIN TAKEAWAYS

The search data of query terms for “plantar fasciitis” and “heel pain” on Google Trends show significant seasonal variation across several countries, with a peak in the summer and a trough in the winter.

The present study provides another line of evidence for the seasonal trend of plantar fasciitis.

Google searches for plantar fasciitis have steadily increased in recent years.

It is important to acknowledge searching on the internet can occur even without symptom(s) in an affected individual, such as during media coverage of the illness, social health campaigns, outbreaks of the illness among celebrities, and for academic or research purposes.

GIVE US YOUR FEEDBACK!

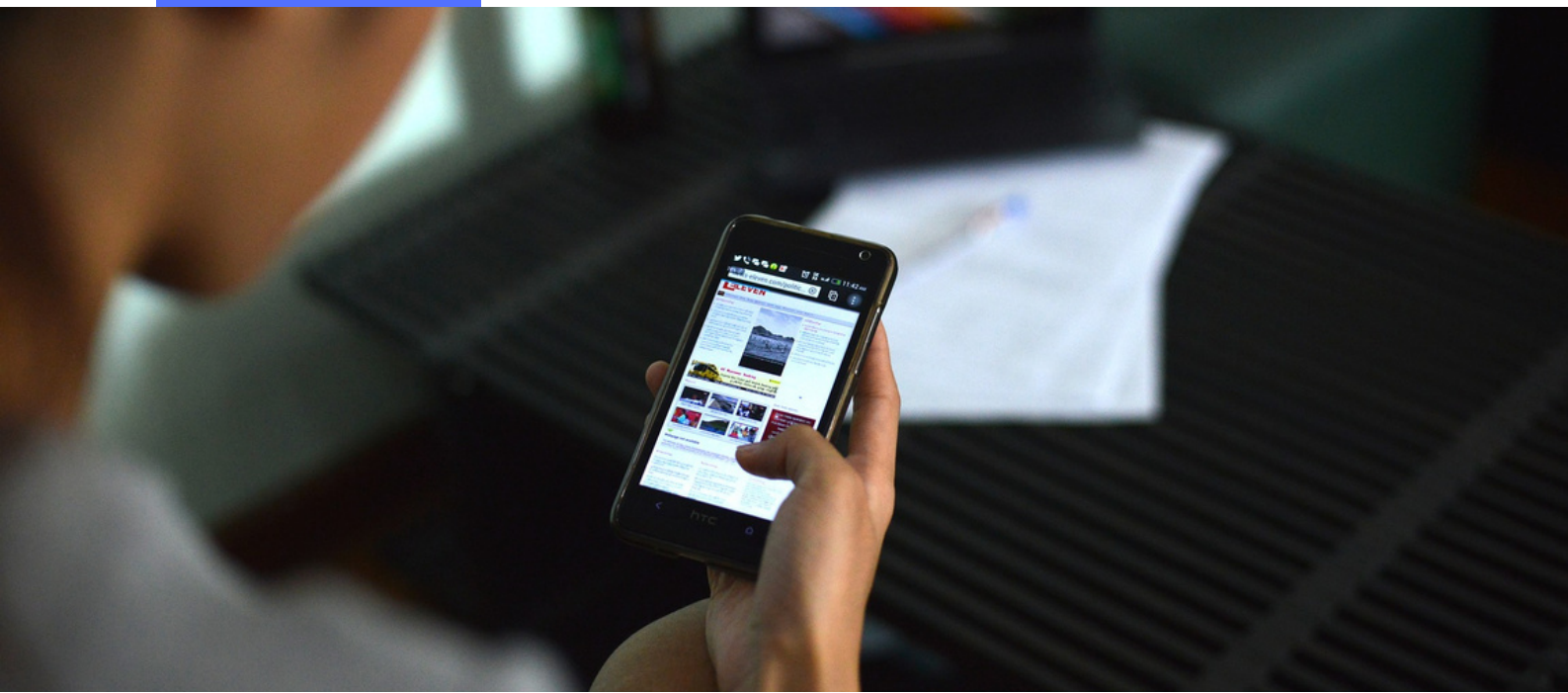
MEMBERS

We are on a mission to make research more accessible, easier to interpret, and quicker to implement.

Help us by giving 1 minute of your time to leave feedback for us.

We would greatly appreciate any feedback you have, as it helps us continually improve!

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JBI CRITICAL APPRAISAL CHECKLIST FOR SYSTEMATIC REVIEWS AND RESEARCH SYNTHESSES

Author: Hamstra-Wright et al. Year: 2021

	Yes	No	Unclear	Not applicable
1. Is the review question clearly and explicitly stated?	+	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Were the inclusion criteria appropriate for the review question?	+	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. Was the search strategy appropriate?	+	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. Were the sources and resources used to search for studies adequate?	+	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. Were the criteria for appraising studies appropriate?	+	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. Was critical appraisal conducted by two or more reviewers independently?	+	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7. Were there methods to minimize errors in data extraction?	+	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8. Were the methods used to combine studies appropriate?	+	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9. Was the likelihood of publication bias assessed?	<input type="checkbox"/>	X	<input type="checkbox"/>	<input type="checkbox"/>
10. Were recommendations for policy and/or practice supported by the reported data?	+	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11. Were the specific directives for new research appropriate?	+	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Overall appraisal: 10/11 (90%)

LIMITATIONS:

Lack of consistency in the >100 risk factors reported in the 16 studies.

The loss of data due to disparate methods and reporting of means, measures of variability, and heterogeneity prevented a thorough analysis of many risk factors.

The quality of reporting was varied among the 16 studies.

JBI CRITICAL APPRAISAL CHECKLIST FOR SYSTEMATIC REVIEWS AND RESEARCH SYNTHESSES

Author: Rhim et al. Year: 2021

	Yes	No	Unclear	Not applicable
1. Is the review question clearly and explicitly stated?	+	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Were the inclusion criteria appropriate for the review question?	+	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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11. Were the specific directives for new research appropriate?	+	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Overall appraisal: 11/11 (100%)

LIMITATIONS:

Many studies include co-interventions of stretching, mechanical treatments or manual therapies that make it difficult to isolate the relative influence of a given intervention on improvement in pain or function.

There could be original studies on other aspects of plantar fasciitis that might have not been included in a systematic review.
