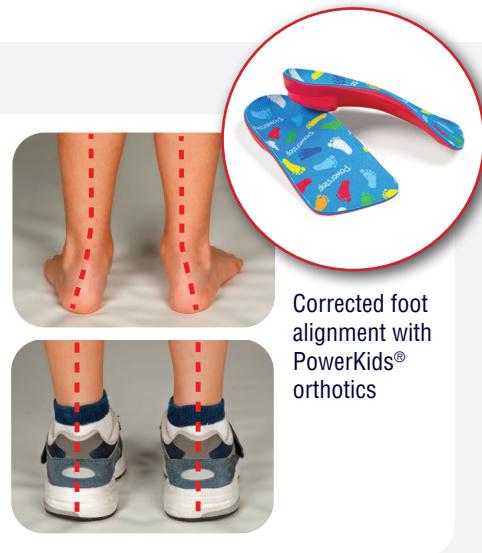


> **Prefabricated orthotics** provide postural steadiness.

- Orthotic insoles significantly improve postural sway by reducing the range of postural sway, providing more postural steadiness.⁹



> **Flat-footed individuals benefit** from the use of orthotics.

- Using a foot insole improves foot alignment and decreases energy consumption of flat-footed individuals during walking.¹⁰
- There is significant improvement in symmetry of steps and walking speed with a functional foot orthosis in comparison to a medical shoe in flat foot children.¹¹
- The prescription of a functional foot orthosis with regular shoes might be a good alternative for children with moderate flat foot as orthopedic shoes are heavy and expensive and most children are reluctant to use them.¹¹

> **Foot orthotics are effective** in treating ankle instability.

- There is significant evidence that foot orthotics address mechanical and functional instability of the ankle.¹⁴
- Foot orthotics have the potential to enhance sensory feedback for improvement of balance and postural control.¹⁴
- Foot orthotics could address the mechanical components of ankle stability by reducing strain around the soft tissue structures of the ankle and enhancing muscular strength for stability.¹⁴
- Some studies show impressive improvements in balance when combining a prefabricated device with medial posting.¹⁴
- Researchers attribute positive results with foot orthotics improving postural control to the fact that they optimize positioning of the foot.¹⁴
- Efforts to reduce pronation of the foot are more successful in improving ankle instability than strategies that prevent supination or inversion.¹⁴
- Foot orthoses may enhance balance and proprioception by stimulating the sensors on the plantar surface of the foot.¹⁴





PowerStep®

Therapeutic Orthotics



Proven Effective in Clinical Studies

> PowerStep® is *clinically proven* to improve foot function.

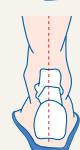
- PowerStep® decreases foot pain and increases the sense of foot stability and mobility over the short term and for at least one year.¹
- As compared to walking with no orthosis, PowerStep® resulted in a 33.19% reduction in Plantar Fascia strain.¹⁵
- When compared to two other over-the-counter devices on the market, only PowerStep® exhibited significant decreases, 18.2%, in peak rearfoot eversion.¹⁵
- After 4 weeks of use, the majority of PowerStep® users experience a significant improvement in comfort.¹
- PowerStep® significantly increases comfort regardless of the nature of the presenting complaint.¹
- By changing frontal plane alignment, PowerStep® significantly changes rearfoot alignment, bringing the rearfoot closer to a vertical position.¹
- PowerStep® orthotics have been shown to change frontal plane alignment significantly.¹
- 73% of people still find PowerStep® beneficial after 15 months of use.¹

> PowerStep® orthotics are an effective, efficient and economical alternative to custom orthotics in treating plantar heel pain.

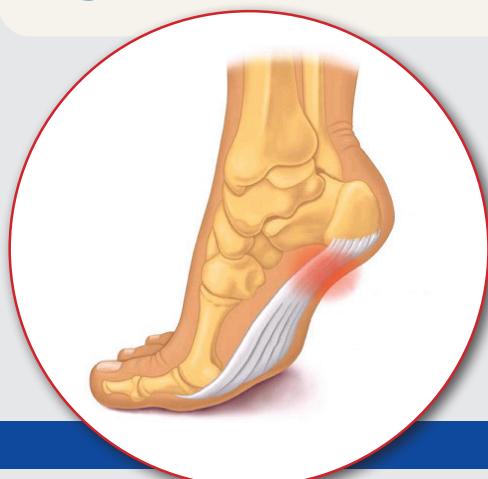
- Within 4 weeks of use, PowerStep® is just as effective in reducing foot pain and disability as custom fabricated orthoses.²
- PowerStep® provides a short-term benefit equivalent to custom orthoses at considerably reduced costs.²
- PowerStep® is a cost-effective alternative to custom fabricated orthoses.²
- PowerStep® orthotics provide the same therapeutic outcome for heel pain as casted orthoses but are cheaper to supply and can be held as a stock item for immediate supply to the patient, thereby improving the patient experience.³



Unsupported Foot tends to roll inward. The arch flattens, stretching the tissue while bones misalign.



Foot with PowerStep® provides foot posture and support to correct bone alignment and prevent pain.





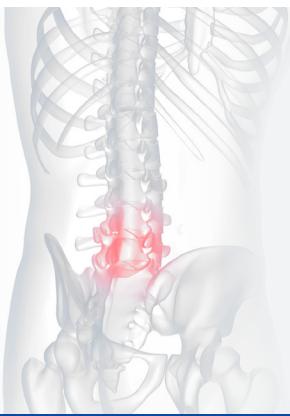
> Orthotics incorporating a rigid, plastic component are superior in reducing pain associated with Plantar Fasciitis and are quicker to alleviate pain.

- Thin, non-supportive orthotics do not have any effect on Plantar Fasciitis pain.⁴
- Semi-rigid orthotics have moderate to large benefits in treating and preventing Plantar Fasciitis.⁵
- Both soft, supportive foam orthotics and foam-covered rigid self-supporting plastic orthotics have a significant effect on pain levels; however, foam-covered rigid self-supporting plastic orthotics are superior in pain reduction and quicker in pain free time.⁴

> Custom orthotics are not necessarily better than prefabricated orthotics.

- There is no current evidence to support the notion of custom orthotics being more effective than prefabricated orthotics for Plantar Fasciitis.⁶
- While foot orthoses have a role in managing plantar fasciitis, lack of sufficient evidence prevents any kind of determination on whether customized orthoses are more effective than prefabricated devices.⁶
- Evidence supports the use of foot orthoses to prevent a first occurrence of lower limb overuse conditions and shows no difference between custom and prefabricated foot orthoses.⁷
- When used in conjunction with a stretching program, a prefabricated shoe insert is more likely to produce improvement in symptoms as part of the initial treatment of proximal Plantar Fasciitis than a custom polypropylene orthotic device.⁸

PowerStep® Pinnacle Series



> Foot orthotics can help improve posture control and may help prevent and treat low back pain.

- There is moderate evidence to support the use of foot orthotics in the treatment of chronic ankle instability to help improve postural control.¹²
- Pronated foot function may contribute to low back symptoms in women. Interventions that modify foot function, such as orthoses, may therefore have a role in the prevention and treatment of low back pain.¹³

Sources

- 1 Springett, Otter and Barry. "A Clinical Longitudinal Evaluation of Pre-Fabricated, Semi-Rigid Foot Orthoses Prescribed to Improve Foot Function." *The Foot*. 17 (2007) 184–189.
- 2 Ring and Otter: "Clinical Efficacy and Cost Effectiveness of Bespoke Compared with Over-the-Counter Foot Orthoses for Plantar Heel Pain." *Journal of Foot and Ankle Research*. 2010 3 (Suppl 1): O22.
- 3 Ring and Otter. "Clinical Efficacy and Cost-Effectiveness of Bespoke and Prefabricated Foot Orthoses for Plantar Heel Pain: A Prospective Cohort Study." *Musculoskeletal Care*. Jun 25, 2013.
- 4 Walther M, Kratschmer B, Verschl J, Volkering C, Altenberger S, Kriegelstein S, and Hilgers M. "Effect of Different Orthotic Concepts as First Line Treatment of Plantar Fasciitis." *Foot and Ankle Surgery*. 2013 Jun; 19(2):103-7. DOI: 10.1016/j.fas.2012.12.008.
- 5 Hume P, Hopkins W, Rome K, Maulder P, Coyle G, and Nigg B. "Effectiveness of Foot Orthoses for Treatment and Prevention of Lower Limb Injuries." *Sports Medicine*. 2008; 38(9):759-79.
- 6 McCurdy B. "Study: Custom Orthotics Not Necessarily Better than Prefab." *Podiatry Today*. Feb 2005. Vol 18-Iss 2.
- 7 Richter R, Austin T, and Reinking, M. "Foot Orthoses in Lower Limb Overuse Conditions: A Systematic Review and Meta-Analysis – Critical Appraisal and Commentary." *Journal of Athletic Training*. 2011 Jan-Feb; 46(1): 103–106.
- 8 Pfeffer, Glenn, et al. "Comparison of Custom and Prefabricated Orthoses in the Initial Treatment of Proximal Plantar Fasciitis." *Foot & Ankle International*. 20.4 (1999): 214-221.
- 9 Bateni H. "Improvement in Postural Sway Following Use of Prefabricated Orthotic Insoles." *Journal of Applied Biomechanics*. Apr 2013; 29(2): 174-9.
- 10 Karimi MT, Fereshtehnejad N, and Pool F. "The Impact of Foot Insole on the Energy Consumption of Flat-Footed Individuals During Walking." *Foot and Ankle Specialist*. 2013 Feb; 6(1):21-6.
- 11 Aboutorabi A, Saeedi H, Kamali M, Farahmand B, Eshraghi A, and Dolagh RS. "Immediate Effect of Orthopedic Shoe and Functional Foot Orthosis on Center of Pressure Displacement and Gait Parameters in Juvenile Flexible Flat Foot." *Prosthetics and Orthotics International*. Aug 28, 2013.
- 12 Gabriner ML, Braun BA, Houston MN and Hoch MCJ. "The Effectiveness of Foot Orthotics on Improving Postural Control in Individuals with Chronic Ankle Instability: A Critically Appraised Topic." *Journal of Sports Rehabilitation*. Aug 12, 2013.
- 13 Menz HB, Dufour AB, Riskowski JL, Hillstrom HJ and Hannan MT. "Foot Posture, Foot Function and Low Back Pain: The Framingham Foot Study." *Rheumatology (Oxford)*. Sept 17, 2013.
- 14 Douglas Richie, Jr., DPM. "Chronic Ankle Instability: Can Orthotics Help?" *Podiatry Today*. Oct 2006. Vol 19-Iss 10.
- 15 Ferber R and Hettinga BA. "A Comparison of Different Over-the-Counter Foot Orthotic Devices on Multi-Segment Foot Biomechanics." *Prosthetics and Orthotics International*. May 26, 2015.



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