

## **Orthotics Clinically Proven To Relieve and Prevent Pain**

#### **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.<sup>15</sup>
- When compared to two other over-the-counter devices on the market, only PowerStep® exhibited significant decreases, 18.2%, in peak rearfoot eversion.<sup>15</sup>
- 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.<sup>2</sup>
- PowerStep® provides a short-term benefit equivalent to custom orthoses at considerably reduced costs.<sup>2</sup>
- PowerStep® is a cost-effective alternative to custom fabricated orthoses.<sup>2</sup>
- 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.<sup>3</sup>



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









- > 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.<sup>4</sup>
- Semi-rigid orthotics have moderate to large benefits in treating and preventing Plantar Fasciitis.<sup>5</sup>
- Both soft, supportive foam orthotics and foam-covered rigid selfsupporting 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.<sup>4</sup>

### > 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.<sup>6</sup>
- 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.<sup>6</sup>
- 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.<sup>7</sup>

 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.<sup>8</sup>







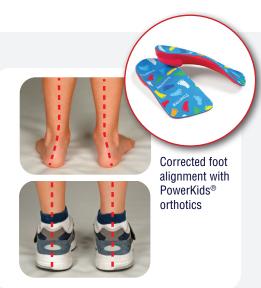
- > Foot orthotics can help improve posture control and may help prevent and treat low back pain.
- There is moderate evidence to support the use of foot orthotics in the treatment of chronic ankle instability to help improve postural control.<sup>12</sup>
- Pronated foot function may contribute to low 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.<sup>13</sup>

# PowerStep\*

# > **Prefabricated orthotics** provide postural steadiness.

 Orthotic insoles significantly improve postural sway by reducing the range of postural sway, providing more postural steadiness.<sup>9</sup>





# > 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.<sup>10</sup>
- 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.<sup>11</sup>
- 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.<sup>11</sup>

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

 There is significant evidence that foot orthotics address mechanical and functional instability of the ankle.<sup>14</sup>

 Foot orthotics have the potential to enhance sensory feedback for improvement of balance and postural control.<sup>14</sup>

 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.<sup>14</sup>

• Some studies show impressive improvements in balance when combining a prefabricated device with medial posting.<sup>14</sup>

 Researchers attribute positive results with foot orthotics improving postural control to the fact that they optimize positioning of the foot.<sup>14</sup>

 Efforts to reduce pronation of the foot are more successful in improving ankle instability than strategies that prevent supination or inversion.<sup>14</sup>

 Foot orthoses may enhance balance and proprioception by stimulating the sensors on the plantar surface of the foot.<sup>14</sup>



#### Sources

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