

PowerPro Dynamic Carbon Fiber Insoles... Clinically-Backed Power with Real Results for Your Patients

**By Mark Dentler, President/Owner,
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Spinal Solutions, O&P Solutions and PowerPro Insoles are a mix of organizations serving the O&P, C-Ped, DPM, PT, AT & Chiropractic industries through the fabrication and distribution of orthopedic devices.

Spinal Solutions, Inc. was formed and began operations in 1995 as a custom spinal fabricator and distributor of prefabricated spinal orthoses. Over the course of the decade, we grew to include custom and prefabricated carbon fiber AFO's & KAFO's, and a custom lower extremity and custom prosthetic department.

To continue to stay on the cutting edge of the burgeoning digital movement, we introduced our own 7 axis robotic carver along with our own CAD-CAM modeling software to our equipment inventory. This allowed us to accept, carve and model digital scans from a variety of scanning sources. We recently added our own Mestrovic 7 axis KUKA carver that is self-contained and runs on a single phase, 220V power.

After surviving a severe turn-down during the pandemic, the organization began to focus on its lower extremity, carbon fiber fabrication and distribution. Working with leading orthotists, certified pedorthists and the O&P Department at Kennesaw State University, we began to develop a line of carbon and non-carbon insoles. Our initial goal was to design an affordable, carbon fiber insole that would enhance and positively impact an athlete's performance. In 2025 we achieved that goal by introducing the PowerPro Carbon Fiber Insole. Our design was so unique that it was patented by the PTO office this year. The design simply enhances what God created in the foot by following the foot's powerful design by our creator. Our goal was to maximize the storing and releasing of energy to propel the athlete (or anyone for that matter) forward with increased velocity. This is achieved and maximized by increasing the arch angle to a point just below the discomfort level. Of course, this can be manipulated due to the fact we are using a heat-moldable carbon fiber. A concave distal toe turndown was also built in to energize the insole at toe-off. Some other features include a



- Dynamic Propulsion Carbon Fiber Insole
- Arch Support PP Insoles
- Heat moldable CF Plates




- Custom Lower Extremity Fabrication
- Scanning, Modeling & Carving Digital Tech
- Thermoplastic, Metal & Leather Fabrication




- Prefabricated LE Orthoses
- Prefabricated LE Carbon Fiber AFO's
- Custom/Prefab Spinal Fabrication

soft, flexible heel to act as a shock absorber at heel strike and a met-head, forefoot rocker to aid in the gait transition from mid-stance to toe-off. This also provides met-head relief.

Our carbon fiber insole will provide benefits to the following groups:

- 1) Athletes—Sports performance enhancement
- 2) Athletes—Injury prevention
- 3) Athletes—Reduce recovery time after injury
- 4) Occupational—Reduce fatigue and increase stamina
- 5) Occupational—Increase propulsion and improve quality of life
- 6) Occupational—Improve mentality and wellness
- 7) Elderly—Arch support
- 8) Elderly—Aid in balanced support, alignment and stability
- 9) Elderly—Aid with drop foot
- 10) Elderly—Restore muscle function, ambulation, and cadence (gait)
- 11) Elderly—Reduce fatigue, thereby increasing mobility and exercise
- 12) Elderly—Assist and support when climbing stairs
- 13) Patients—Unload painful pressure points
- 14) Patients—Total contact pressure distribution
- 15) Patients—Reduce heel pain and excessive range of motion at forefoot
- 16) Patients—Decrease stress on foot
- 17) Patients—Treat a long list of foot indications including plantar fasciitis
- 18) Everyday People—Increase bounce in step, reduce fatigue, injury prevention, etc.

Our organization has also developed a non-carbon arch support insole, in both a posted and non-posted version.

Our strength is derived from the diversity of our organization's orthopedic appliance fabrication capabilities. We offer "Head to Foot" custom & prefabricated fabrication. We use cutting edge technology to ensure that the orthosis we fabricate fits and functions properly. Our mission is to go to great lengths to ensure that you and your patients are completely satisfied.

Call 800-922-5155, visit www.powerproinsoles.com, click here, or visit www.oandp.solutions, or www.spinal.solutions.