



DARCO International

Wu Zhang

DARCO

Medical Shoe

- Post- Surgery: Trauma, Bunion, Hammer Toe
- Wound Care: Diabetic Foot Ulcers
- Surgery for foot or ankle issue



Diabetic Foot Ulcers



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Product Feature

- Ankle Strap
- Seven Size or Five size(MXL, ML, MM, MS, WL, WM, WS) or (XL, L, M, S, XS)
- One design handle left or right foot
- Removable fore foot closure
- Removable insole
- Strap system accommodates large bandaged foot
- Rigid sole
- Fully open design to accept foot
- Foot pressure reduction
- 2-3 years shelf life, 8-12 weeks operational life



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DARO History

Dr. H. Darrel Darby, a practicing podiatrist, develops the Darby Med-Surg™ Shoe – a unique post operative shoe built around a semi-rigid sole to replace the traditional wooden sole shoes that had dominated the market to that point. He forms a company, Darby Incorporated, to market and distribute the shoe throughout the USA. Production is handled by a Taiwanese footwear manufacturer and physical distribution is subcontracted out to a US distribution center in Chicago.



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Rigid Post Op Shoe

- Outsole constructed of wood or rigid plastic
- Non-conforming canvas upper
- Minimal internal padding and insole thickness



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DARO History

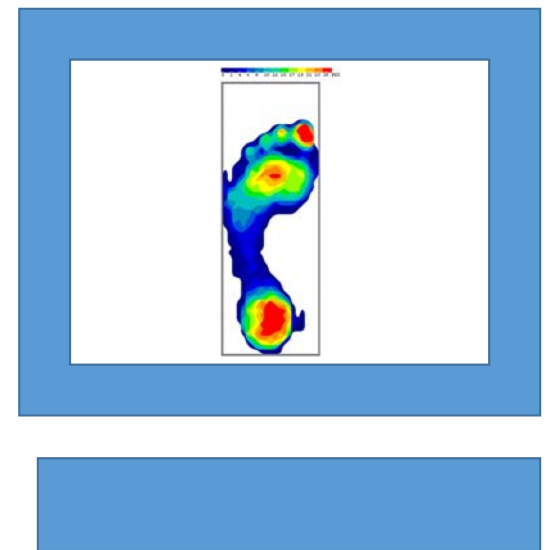
**Pressure on
dorsum**



Heel Slippage

- During the toe-off phase of gait the entire sole is forced away from the foot increasing pressure on the metatarsal heads.
- Corresponding pressure develops across the dorsum of the foot and the metatarsals.
- Heel slippage is the number 1 patient complaint.

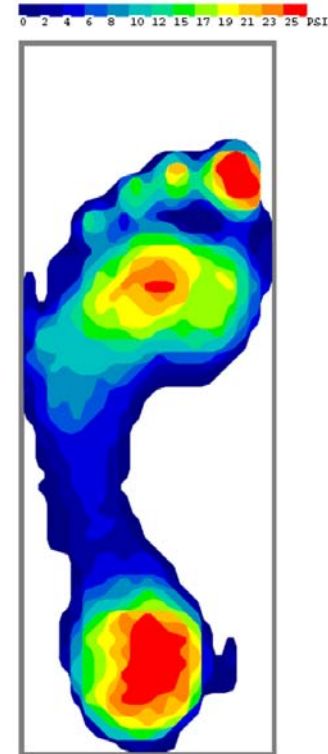
F-SCAN Pressure Map System



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Peak Pressure Map

- Peak pressure beneath the calcaneus is 25 PSI and higher.
- Peak pressure beneath the metatarsal heads is 25 PSI and higher.
- Peak pressure beneath the great toe is 25 PSI and higher.
- None of the above conditions are ideal for the post operative care of the foot.



Darco Medical Surgical Shoe 1985

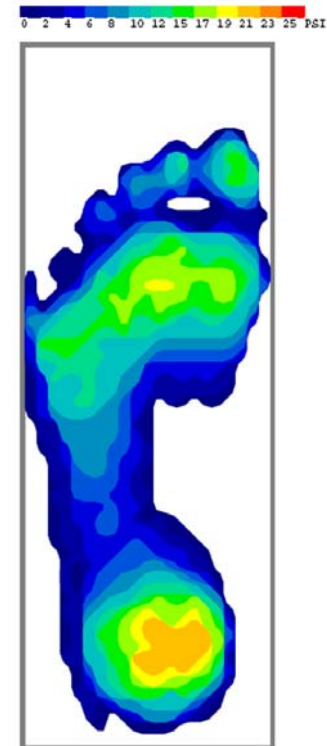
- Designed by Dr. H. Darrel Darby, founder of Darco.
- First post op shoe to incorporate running shoe design and materials.
- Now the number 1 choice for foot & ankle surgeons.



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Peak Pressure Map (MQ)

- 16% reduction of peak pressure beneath the calcaneus to 21 PSI.
- 24% reduction of peak pressure beneath the metatarsal heads to 19 PSI.
- 32% reduction of peak pressure beneath the great toe to 17 PSI.
- The above efficiencies were achieved through better materials and a design that works with instead of against the foot.



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The New Darco Med-Surg Shoe

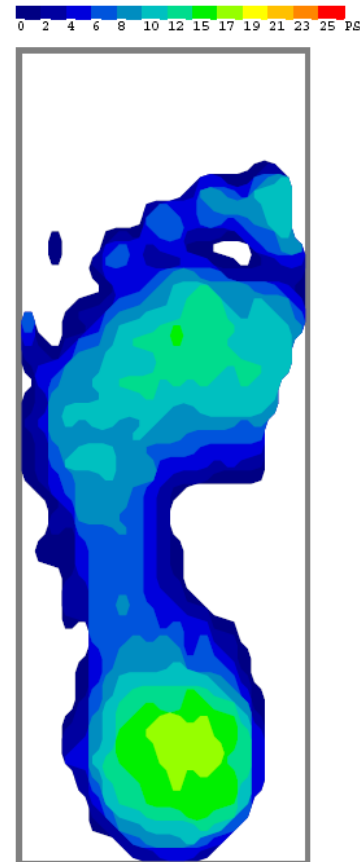
- Designed with more of a rocker outsole
- Removable foam insole
- Buckle free forefoot closure to eliminate buckle and strap pressure
- Ankle strap to eliminate heel slippage



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Peak Pressure Map (SQ vs Round Toe)

- 19% reduction in peak pressure beneath the calcaneus to 17 PSI.
- 21% reduction of peak pressure beneath the metatarsal heads to 15 PSI.
- 41% reduction of peak pressure beneath the great toe to 10 PSI.
- The greater the reduction in plantar pressure the sooner patients may begin post op weight bearing.



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DARCO Peg-Assist Insole System



- Designed to fit the new Darco Med-Surg Shoe
- Removable pegs allow for direct off-loading of pressure
- Suitable both for use in wound care and post op pressure reduction

Peg-Assist™ Instruction Card



Remove black insole.



Insert Peg-Assist™ Insole.



Circle off-loading site.



Imprint on blue side.



Remove pegs beneath marking.*



Attach stabilizer board to peg side.
(Peel white paper to reveal adhesive)



Reinsert Peg-Assist™ Insole.



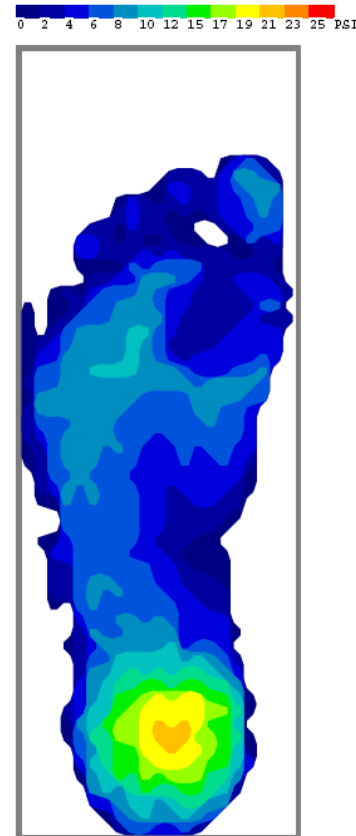
Done!

*To avoid risk of tearing top layer of Poron, please remove pegs slowly.

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Peak Pressure Map (MQ+ Peg Insole)

- Removal of pegs beneath the 1st MPJ allows for a 60% reduction of peak pressure to 6 PSI and as low as 2 PSI.
- Location specific off-loading provides a better healing environment for ulcers beneath the 1st MPJ.
- Location specific off-loading provides a better healing environment for 1st metatarsal osteotomies.



Relief Dual Shoe



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EVA CAST Boot



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Snap Fit Shoe



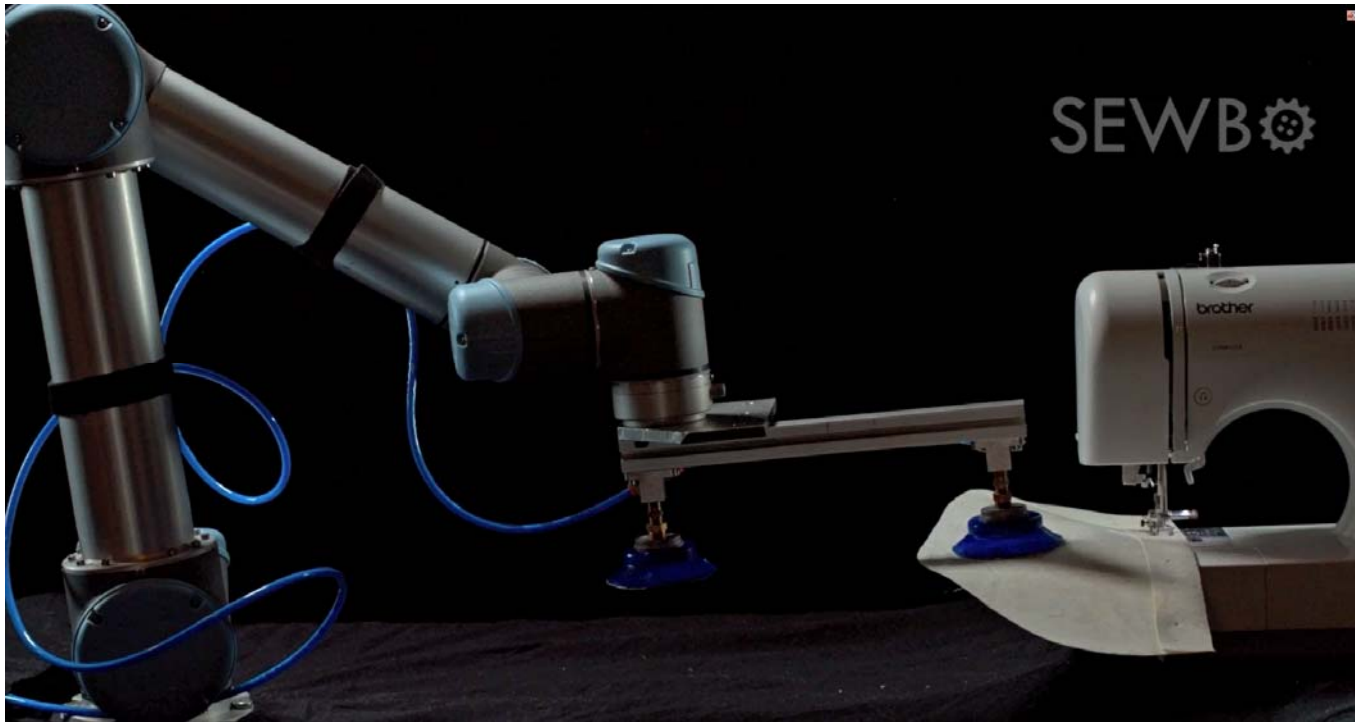
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Over Molding The Outsole



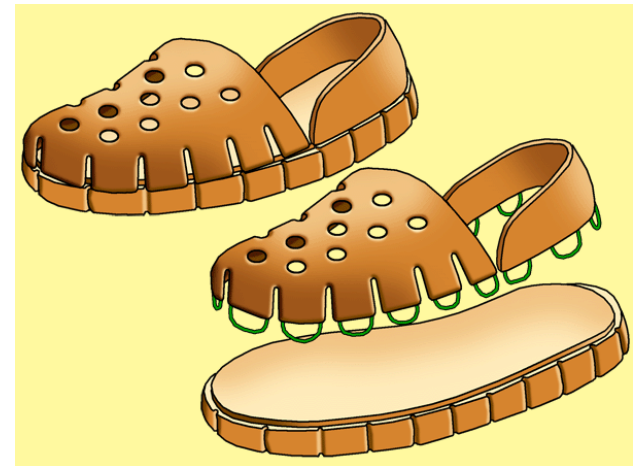
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CNC Sewing Machine



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Other Ideas



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3D printed Sole and machine knitted upper



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Sprintkönig
Usain Bolt
erschien,
na klar, als
Märchen-
könig



Walk it out
Brooke Shields goes easy as she leaves a Beverly Hills hospital on April 25. "It's a very glamorous [surgery] — it is fixing a hammer toe," says Brooke of her medical procedure. Up next for the 42-year-old star? *The Midnight Meat Train*, a horror film, opens on May 16.



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Thank you!



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