

Editorial Know causes, symptoms and treatment of foot problems!

News & Notes Testimonials: “Every 15 seconds somewhere in the world ...”

Featured Product TwinShoe Balance Shoe

Expertise Is there a biomechanical need for the use of a height compensation shoe while wearing a Wedge Shoe?

Events June 2016 – September 2016

Imprint About us / Disclaimer

Editorial

Welcome to the 12th issue of DARCO India Newsletter

Dear Reader,

DARCO is committed to providing the most current information to the medical community, institutions and distributors throughout India – all dedicated to the treatment of the foot.

Many types of footwear are available on the market for people with foot problems. Depending on the reimbursement system, a patient may have to pay for the therapeutic footwear prescribed. The investment required for an individual's therapy, is very often discussed directly with the doctor and the family. Consequently, the medical specialist's role extends into providing critical knowledge about the best possible solutions.

In addition to knowing about the causes, symptoms and treatment of foot problems, every specialist requires up-to-date knowledge about the available solutions. Therefore, the health care provider's partnership with a dependable supplier and reputable manufacturer of therapeutic shoes is essential for providing the highest quality of care to patients. DARCO is one of the leading suppliers of medical shoes in the world with 30 years of experience in the treatment of foot and ankle. The quarterly E-News can provide an overview to the most common foot deformities and appropriate footwear. The DARCO India E-Journal 1 – 12 is now available as a complete set. Please contact info@darco.in to get your free copy.



DARCO – Your partner for professional foot care!

Yours sincerely

Shashi Surpali
CEO DARCO Medical India Pvt. Ltd.

News & Notes

Testimonials:

**“Every 15 seconds
somewhere in the
world a foot and ankle
specialist prescribes a
DARCO product”**

“... it improved my mobility. I am able to walk properly and even I am able to go to the doctor by wearing this shoe”. *India*



“My mother needed to undergo surgery on both feet. Now the wounds are healing and she is able to walk again without pain, thank you!” *China*



“... he is happy and safe, great help for childrens injured feet!” *Germany*



Featured Product

TwinShoe – Keep the balance

The DARCO TwinShoe is an excellent, light-weight, height compensation shoe designed to compliment a healing shoe. For example, DARCO OrthoWedge® forefoot off-loading shoe, HeelWedge™, heel off-loading shoe or the Body Armor® Walker II cast replacement boot, all of which are commonly used solutions after foot surgery. DARCO's TwinShoe, makes post-surgery mobilization safe and easy.

After foot surgery, most surgeons employ a post-operative shoe to enable the patient to become mobile as quickly as possible. The TwinShoe was designed specifically to equal out the discrepancy in leg lengths when an "off-loading" healing shoe has been prescribed. This equalization can help relieve discomfort due to the imbalance while walking. Simply slip it on like any other shoe and go! The TwinShoe is designed for a universal left / right fit.

Indications

- > to compliment a healing shoe (such as a forefoot off-loading shoe)
- > equalizing leg lengths

Features and Benefits

- > prevents the tilting of the pelvis due to higher healing shoe sole
- > to ensure a safe and ergonomically correct walking pattern when worn together with healing shoes or off-loading shoes
- > removable insole
- > Body Armor® Toe Guard – Optional



The TwinShoe is the matching shoe for the following DARCO products: OrthoWedge®, HeelWedge™, Body Armor® Walker II

Sizes: XS (33.5 – 37.0)
S (37.5 – 39.5)
M (40.0 – 41.5)
L (42.0 – 44.0)
XL (44.5 – 47.0)

Height of the sole: 36 mm
Color: Black

Please find detailed information on our website www.darco.in

Postoperative Care



Expertise

Is there a biomechanical need for the use of a counter side height adjustment while wearing a Wedge Shoe?

By wearing a wedged post-surgical or off-loading shoe, the patient will experience a bilateral asymmetry in leg length which leads to a limping gait. Patients might claim knee, hip and/or lower back pain after wearing a wedged shoe for a while due to a changed biomechanical function chain.

It looks like the human body can tolerate a leg length difference up to 2 cm⁽¹⁾. Differences of more than 2 cm can lead to difficulties in walking. Even patients without diabetic ulcers and/or neuropathy often claim pain in the Sacroiliac Joint. In Berlin Germany, Dr. Edelmann observed 100 patients in a period of 8 months who underwent a Hallux Valgus correction surgery and had to wear a forefoot off-loading shoe.

- > 88 % said walking with just the off-loading shoe was uncomfortable
- > 37 % said that they experienced pain in the Sacroiliac Joint
- > As a consequence, 26 % chose not to wear the off-loading shoe at all.

In 1991 McCaw et al⁽²⁾ described the biomechanical implications of mild leg length inequality and pointed to

- > Possible stress fractures of the weight bearing bones
- > Osteoarthritic symptoms in the hip and the knee
- > Lower back pain due to a functional scoliosis

In 2013 O'Leary et al⁽³⁾ did a systemic literature review and came to the conclusion that foot & ankle deviations can be considered a potential cause of lower back pain.

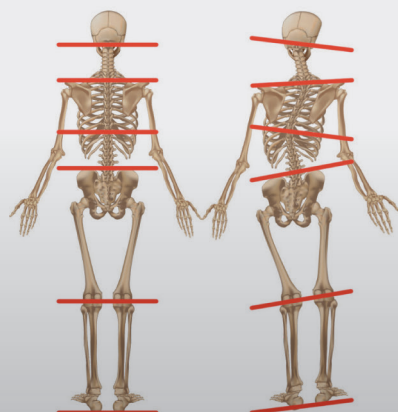
A height adjustment, i.e. in the form of a height difference shoe, can therefore be considered an important part of the complex treatment of foot & ankle disorders.

by Raphael Boehm, Vice President DARCO Europe

Literature:

- (1) **Burke Gurney, PhD, PT, et al**, Effects of Limb-Length Discrepancy on Gait Economy and Lower-Extremity Muscle Activity in Older Adults
J Bone Joint Surg Am, 2001 Jun; 83 (6): 907-915 . <http://dx.doi.org/>
- (2) **McCaw et al**, Biomechanical implications of mild leg length inequality
Br J Sp Med 1991; 25(1) 10-13 <http://bjsm.bmj.com>
- (3) **O'Leary et al**, The effects of podiatric deviations on nonspecific chronic low back pain
J Back and Musculoskeletal Rehabilitation, 2013, (26) 117-123 IOS PressDOI 10.3233/BMR-130367

Footwear



Leg Length difference can lead to an asymmetrical axis in the body resulting in pain
<http://medizinpress.de/beinlaengendifferenzen/>



By courtesy of Dr.Sandhya S. Kulkarni, M.D.,
Chetana Diabetis Foot Care Centre

Contents lists available at ScienceDirect

Gait & Posture

journal homepage: www.elsevier.com/locate/gaitpost

Full Length Article

Effects of the Twin Shoe (Darco) to compensate height differences in normal gait

Martin Wünnemann^a, Dieter Klein, Dieter Rosenbaum

^a Movement Analysis Lab, Orthopaedic Department, University Hospital of Münster, Dettlaffstr. 2, 48149 Münster, Germany

ARTICLE INFO

Article history:
Received 10 May 2016
Received in revised form 21 September 2016
Accepted 24 September 2016

Keywords:
Orthopaedic shoe
Twin Shoe
Leg length discrepancy
Gait analysis
Biomechanics
Compensation

ABSTRACT

Background: After foot surgery or in diseases such as diabetes, orthopaedic shoes with an elevated sole construction are used to offload the affected foot. The height difference between the shoes results in a leg length discrepancy and an abnormal gait pattern which can cause long-term disorders in the joints of the lower extremity and the lower back. To compensate for this discrepancy and to ensure a symmetrical gait pattern a Twin Shoe (Darco) has been designed.

Aim: To investigate the effect of wearing orthopaedic shoes in combination with the Twin Shoe on normal gait biomechanics.

Study design: Cross-sectional study in a laboratory setting.

Methods: Normal gait was recorded in 15 healthy subjects with a gait analysis system. Four different shoe conditions were measured. Selected biomechanical parameters were calculated and compared between the shoe conditions.

Results: Walking in orthopaedic shoes with an elevated sole without compensation on the contralateral side leads to significant asymmetrical joint movements and higher loads in feet, knees, hips and the lower back during gait. By using the Twin Shoe these abnormal patterns were improved but not entirely compensated.

Conclusions: Using the Twin Shoe as a partner to orthopaedic shoes with an elevated sole construction improves gait asymmetry and increased loading of joints induced by functional leg length discrepancy.

© 2016 Elsevier B.V. All rights reserved.

 > For full size, click here



Events

June 2016

16th – 17th June 2016

National Conclave on Diabetes and Diabetic Foot, Chennai

18th – 19th June 2016

National Conclave on Diabetes and Diabetic Foot, Mumbai

23rd – 25th June 2016

6th Annual Conference of the AO Trauma India, Goa

www.aotraumagoa2016.com

24th – 26th June 2016

4th Ganga Operative Trauma Course 2016, Coimbatore, Tamilnadu

<http://goref.org/conference/GangaTrauma2016/index.php>

July 2016

2nd – 3rd July 2016

Hello Diabetes Academia 2016, Nagpur, Maharashtra

www.diabetescare.co.in

9th – 10th July 2016

Diabetic Footcare – Podiatry Course, New Delhi

www.ipafootcare.org

22nd – 24th July 2016

Medicall, Chennai, Tamilnadu

www.medicall.in

29th – 31st July 2016

Dr. Mohan's International Diabetes Update 2016, Chennai, Tamilnadu

www.diabetesupdate.in

August 2016

11th – 14th August 2016

TRAUMACON, Mumbai, Maharashtra

www.traumaconmumbai.com

17th – 20th August 2016

World Trauma Congress 2016-WTC 2016, New Delhi

www.wtcindia2016.org

20th – 21st August, 2016

CLEVELAND CLINIC ADVANCED CERTIFICATE COURSE IN DIABETES 2016 (CCACCD 2016), New Delhi

www.ccaccd.com

26th – 28th August 2016

29th Annual Conference of Indian Foot and Ankle Society IFASCON 2016, Ranchi, Bihar

www.ifascon2016.com

September 2016

1st – 3rd September 2016

India Rehab and Care Expo, Mumbai, Maharashtra

www.indiarehabexpo.com

1st – 4th September 2016

International Society for Knowledge for Surgeons on Arthroscopy and Arthroplasty – ISKSAA Global Summit 2016, New Delhi

www.isksaa.com

15th – 18th September 2016

23rd Annual conference of the vascular society of India & second world congress of world federation of vascular societies, Bengaluru, Karnataka

www.vsicon2016.com

17th – 18th September 2016

17th Annual National Conference of Indian Association of Endocrine Surgery, Meerut, Uttar Pradesh

www.iaescon2016.com



Imprint

About us

DARCO Medical India Pvt. Ltd.
#32A1B1/A1, First Floor, Vaibhav Complex
Opp to District Court, P. B. Road
Dharwad 580 008, Karnataka, India
Telephone +91. 836. 2 74 74 46
Fax +91. 836. 2 44 44 32
info@darco.in, www.darco.in

Responsible for the content

Raphael Böhm
Executive Director DARCO India

Editorial

DARCO (Europe) GmbH
Alexandra Panizza
Marketing Coordinator EMEA / India / Asia

All legal matters are subjected to judicial
jurisdiction of Hubli-Dharwad courts

Legal Information / Disclaimer

- 1) Despite careful control DARCO Medical India Pvt. Ltd. does not assume any liability for the contents of external links. Responsible for the contents of linked sites are their operators only.
- 2) No guarantee or liability will be assumed for the accuracy, topicality and completeness of the information provided. The information should not be used for self-treatment / self-diagnosis and will never replace qualified medical assistance. Please do not hesitate to always consult a physician in case of health problems.
- 3) DARCO Medical India Pvt. Ltd. disclaims any liability for any direct or indirect damages resulting from the use of the contents of this Newsletter.
- 4) Database storage of contact data published in this Newsletter for advertising purposes is not permitted without express authorization. In particular the right to take legal action against the senders of spam mails is explicitly reserved.
- 5) If any parts or individual formulations of this legal information do not comply with, no longer comply with or do not entirely comply with valid legal regulations, the remaining parts will not be affected in their content and validity.

Copyright Information

Contents of this Newsletter may neither be changed nor be copied for commercial use and / or used without permission of DARCO Medical India Pvt. Ltd. Unauthorized downloading and copying of contents are a source of duplicate content in search engines, and consequently cause serious damages. The copyright of all contents of this website are the property of DARCO Medical India Pvt. Ltd.

Product Photography / Graphics

DARCO (Europe) GmbH, DARCO International Inc.
Christian Bullinger, www.bullinger.net
westcoastvideo, www.westcoastvideo.de