SPRINGER
made in Germany

Scientifically
PROVEN

IMPULSE-LINE

www.springer.one

the modifiable foot orthotic with an active principle

When can you use impulse.foot orthotics?

- ✓ Proprioceptive foot orthotics are desired
- ✓ No neurological diagnosis
- ✓ For premium pes planovalgus calcaneus treatment
- ✓ For functional gait and running deficits
- ✓ For chronic ankle instability, frequent ankle distorsions
- ✓ For overuse pain in sports

4 reasons for orthotic blanks with active impulses:

EVIDENCE based approach

→ **Scientifically proven principle**
The effective orthotic modified by trained clinicians – **customer satisfaction** guaranteed.

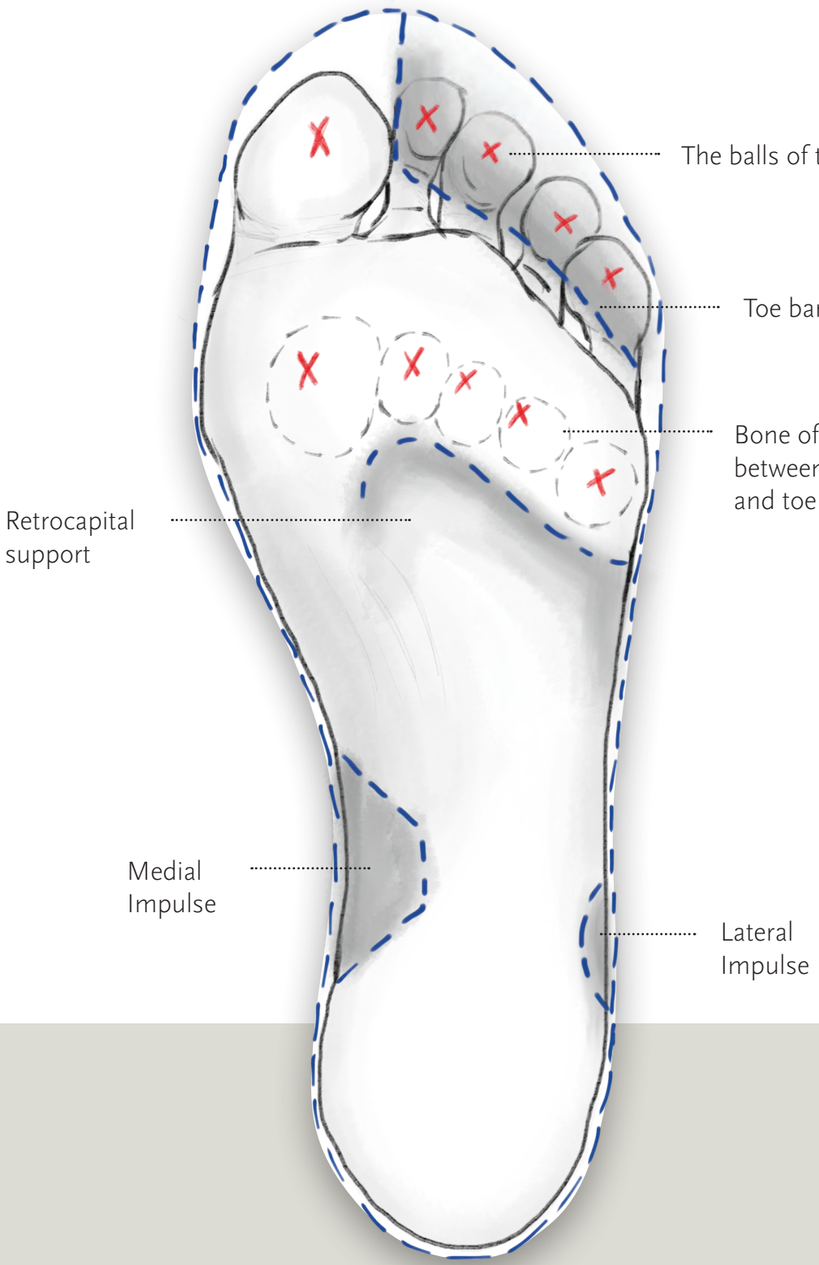
→ **Premium product**
Sell a unique premium product.

→ **Majority of results show patient improvements**
Outcomes are improved and rehab gains are made.

→ **Unique and great performance**
Results in better margins and a higher markup.

An active sensorimotor insole approach is particularly suitable for pain patterns and pathologies that are functionally related. The targeted stimulation of muscles and the nervous system produces a training effect that can contribute to lasting pain relief.

Thanks to evidence-based modulation, impulse.orthotic help your business, when the feet and ankles require muscular stabilization. These blanks can be used for active premium foot orthoses. To treat foot misalignement and functional movement deficits actively they offer the patient additional functionality and allow you to invoice at a higher margin.



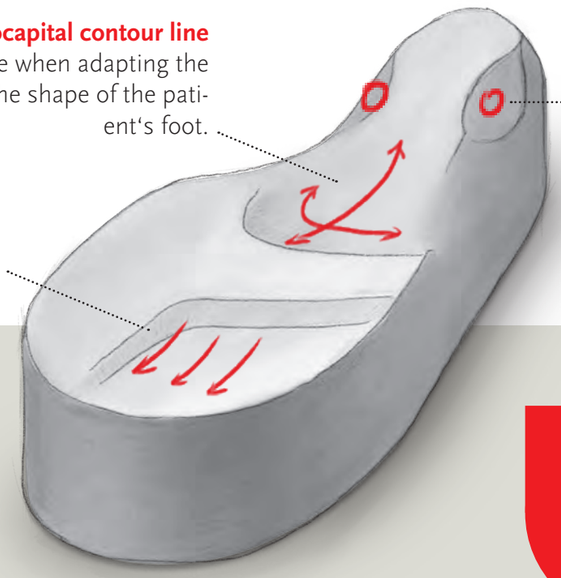
shape with function

THE LAST

Over 20 years ago, our dream was that the sensorimotor principle - our passion at SPRINGER Aktiv - would one day be an inherent part of the everyday orthopedics business. In fact, more and more physicians, therapists and pedorthists have been convinced that this principle gives them a whole new approach to effectively treat malalignments and clinical symptoms. Today, sensorimotor foot orthoses have become an indispensable part of the practice of pedorthics.
Based on the latest scientific evidence, we have modified our active shoe last shape to offer you the best modular substructure for fabricating sensorimotor foot orthotics in your routine operations.

Anatomic, retrocapital contour line saves you time when adapting the foot orthotics the shape of the patient's foot.

Modified toe bridge promotes stretching of the toes to a greater extent.

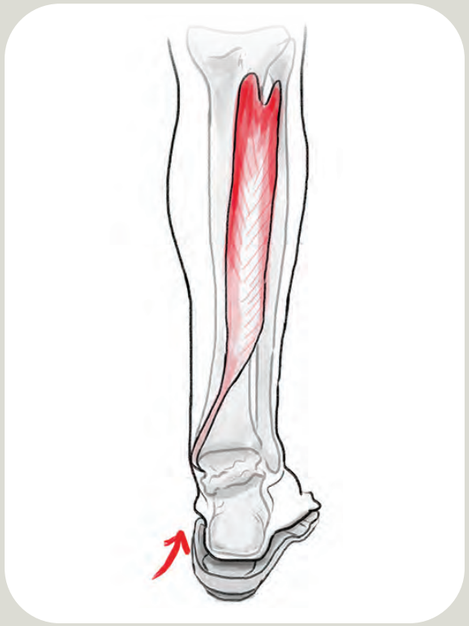


Dorsally targeted impulses show a greater effect on the stabilizing muscles of the lower ankle, according to a recent study.

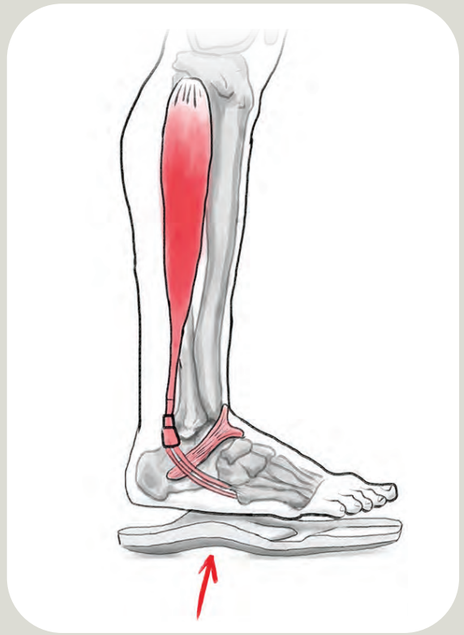
EVIDENCE* based approach

*Study:
Ludwig O., Quadflieg R., Koch M. (2013): »Impact of a sensorimotor foot orthotic on the activity of the m. peroneus longus during the stance phase«. Deutsche Zeitung für Sportmedizin (German Journal for Sports Medicine) 64(3), 77-82. DOI: 10.5960/dzsm.2012.049
Schmitt, A. P.-L., Liebau, K.-H., Hamm, A., Hacke, C., Mittelmeier, W., & Schulze, C. (2022). Comparison of the Influence of Supportive and Sensorimotor Insoles in the Muscle Activity of Tibialis anterior and Peroneus longus in Combat Boots. The Foot, 101910.

- → Lower and upper ankle stabilization
- → Relaxation of the rear leg muscles
- → Contribution to muscular balance



1 Activates the tibial muscles



2 Activates the peroneal muscles

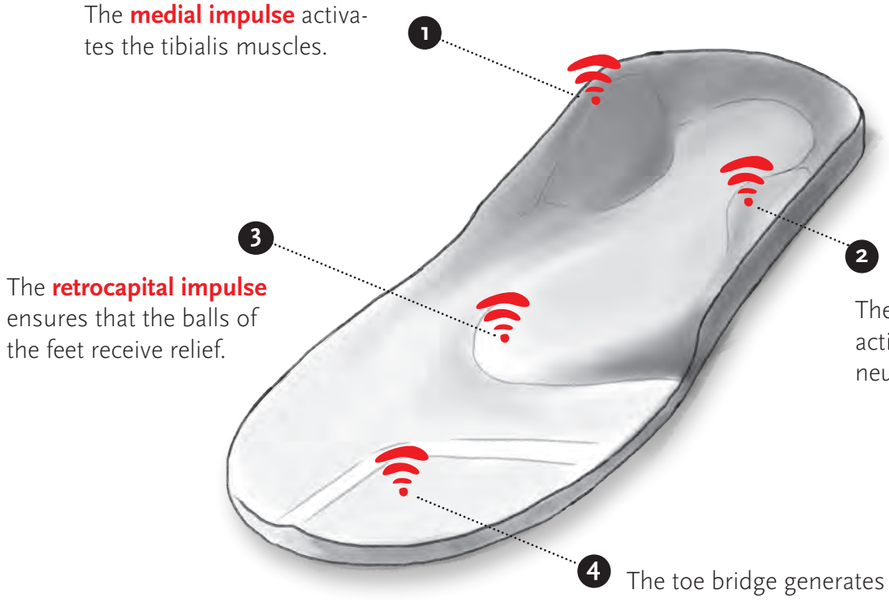
3 Provides relief to the balls of the feet

4 Stimulates the tactile sensors and facilitate stretching of the toes

shape with function

THE PRINCIPLE

Sensorimotor foot orthoses function according to proven neurophysiological mechanisms. They modify and control sensory stimulation via impulses primarily of the musculotendinous spindles thereby regulating muscle tension. The effect is specifically characterized by enhanced joint stability, improved alignment of the leg and body axes while also producing a more physiological gait pattern. For patients with chronic ankle instabilty, this translates into enhanced muscle tension in the posterior tibial muscle and the toe flexors. The reason for this is that these muscles actively promote foot arch alignment and counteract instability of the calcaneus.



The **medial impulse** activates the tibialis muscles.

The **retrocapital impulse** ensures that the balls of the feet receive relief.

The **lateral impulse** activates the peroneus muscles.

4 The toe bridge generates **tactile impulses**, which stimulate the proprioceptors of the toes.

128.impulse

Quality materials designed for modification

Manufacturer number:
309 2L 128 000 1 000 00000

35-48

SUITABLE SHOE TYPES:

Sports | Hiking | Comfort

DIAGNOSIS

- → Ankle instability
- → Foot misalignements e.g. Pes valgus or planovalgus
- → Tibialis posterior/anterior syndrom
- → Runner's Knee
- → Heel spurs, where applicable

- Cushioning foot orthotics with soft padding
- As indicated, with supination or pronation wedge
- As indicated, with heel spur cut-out
- As indicated, with compensation for leg length discrepancy
- Impression taken by physician
- Impression taken in your workshop

138.impulse

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130.impulse

From a milled base to almost ready for modification

Manufacturer number:
306 3L 30L 000 1 000 00000

19/20-35/36

SUITABLE SHOE TYPES:

Children‘s shoes

Sneakers

DIAGNOSIS

- → Pes planovalgus calcaneus
- → Gait insecurity and abnormalities
- → Leg axis deficits e.g. X- or O-legs
- → Foot misalignements e.g. Pes valgus or planovalgus

- Shell foot orthosis made of thermoplastics
- As indicated, with supination or pronation wedge
- As indicated, with compensation for leg length discrepancy – only available for 130.impulse
- ¾-length cushioned footbed
- Soft cushioned forefoot footbed
- Impression taken by the pedorthist
- Impression taken in your workshop

5430.impulse

From a milled base to almost ready for modification

Manufacturer number:
020 3L 30L 620 1 000 00000

19/20-41/42

SUITABLE SHOE TYPES:

Children‘s shoes

Sneakers

Chucks

Soccer cleats

DIAGNOSIS

- → Pes planovalgus calcaneus
- → Gait insecurity and abnormalities
- → Leg axis deficits e.g. X- or O-legs
- → Foot misalignements e.g. Pes valgus or planovalgus

- Shell foot orthosis made of thermoplastics
- As indicated, with supination or pronation wedge
- As indicated, with compensation for leg length discrepancy – only available for 130.impulse
- ¾-length cushioned footbed
- Soft cushioned forefoot footbed
- Impression taken by the pedorthist
- Impression taken in your workshop

1730.impulse

Ready to go model
Economic and intimidate great
for evaluationor a second pair

Manufacturer number:
001 4L 730 619 2 002 00000

35-48

SUITABLE SHOE TYPES:

Business Sneakers Leisure footware Soccer cleats

DIAGNOSIS

- → Pes planovalgus calcaneus
- → Frequent ankle distorsions
- → Leg axis deficits e.g. X- or O-legs
- → Foot misalignements e.g. Pes valgus or planovalgus
- → Increased risk of falls

- Duplicate foot orthosis made of thermoplastics
- As indicated, with supination or pronation wedge
- ¾-length cushioned footbed
- Soft cushioned forefoot footbed

1737.impulse

Ready to go model
Economic and intimidate great
for evaluationor a second pair

Manufacturer number:
007 4L 730 631 1 002 00000

35-48

SUITABLE SHOE TYPES:

Business Sneakers Leisure footware

DIAGNOSIS

- → Pes planovalgus calcaneus
- → Frequent ankle distorsions
- → Leg axis deficits e.g. X- or O-legs
- → Foot misalignements e.g. Pes valgus or planovalgus
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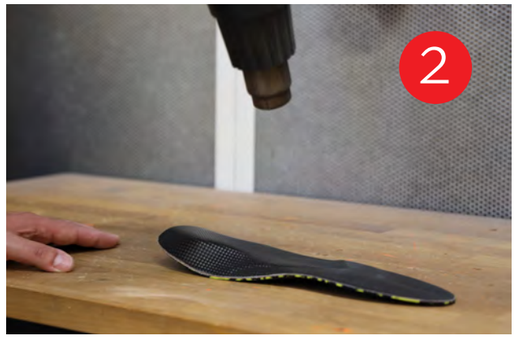
thermoplastic modelling of a shell insole in 5 minutes*

Width of the insole in the heel area determine example left. 7cm. A width of 6 cm is desired (>1 cm on the left). A width difference of approx. 1cm is possible to deform.

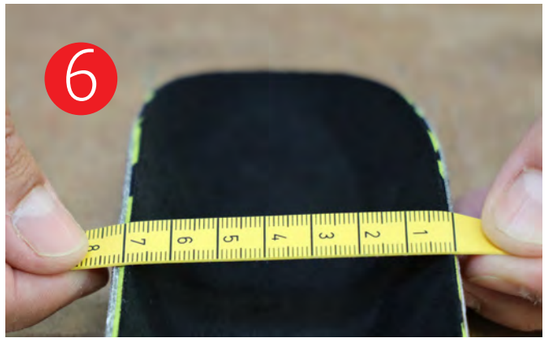
Set the hair dryer to a temperature of approx. 120 degrees and heat the insole (insole core) evenly in the heel area for approx. 2 min.
WARNING: Heat the insole ONLY FROM BELOW, as there is a risk of damaging the padding and surface material.



The material should react (become soft and elastic), if this is the case, only then you can start remodeling.

Shape spots medially & laterally with even pressure to the desired shape. Press heel cup up with index finger under even pressure and bring into shape. If necessary, repeat step several times until the desired width has been achieved. (In this case > 1cm).

let material cool down by means of air pressure if necessary.



Re-measure and check whether the width has been achieved by the modeling. (Example: as shown in the pictures, from 8 cm to 7 cm width).

** modell 1730 impulse*
** auxiliary means: footprint, impression, scan*

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