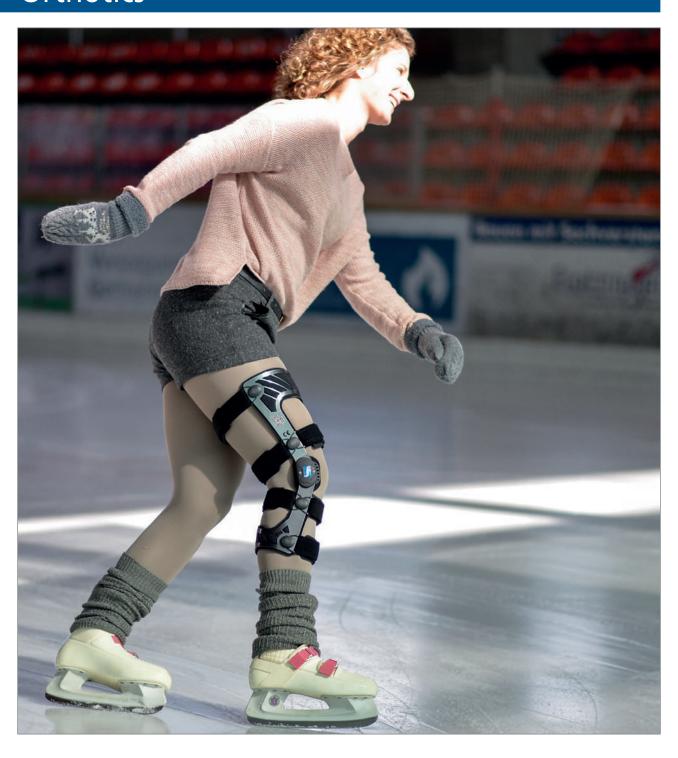


# Orthotics



# **IMPRINT**

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# History

1928	The Streifeneder firm is set up by Lilli and Friedrich Georg Streifeneder in Mannheim.
1929	The first patent is applied for.
1931	The property in Schöngeisinger Straße in Fürstenfeldbruck is purchased.
1932	The first orthopaedic workshop is fitted out in Fürstenfeldbruck near Munich.
1945	Further orthopaedic workshops are set up to cater for war invalids.
1949	The orthopaedic workshop starts up at the Bad Tölz Hospital.
1953	The Munich site is opened. The wholesale business is expanded.
1968	The plastics, Streifylen and Streifylast, are launched along with the requisite heat sources.
1992	A production site is set up in Hungary to manufacture plastic products in small series.
1993	The production and distribution division expands further. Move to the new company premises in Emmering, just outside Munich.
1995	Export activities are stepped up.
1997	Takeover of Maschinen-Schmid, the world market leader in socket router machinery.
1998	The product range is extended by the prosthetics product division.
1999	Traditional in-house production is extended and the product spectrum expanded by modular components. "Everything from a single source" – with our very own department for workshop planning we can now help to realize our clients' wishes even better.
2001	The new site in Emmering is extended by further storage space to 6,000 qm.
2004	Establishment of distribution structure in China.
2007	Streifeneder ortho.production GmbH is set up as an independent subsidiary.
2009	Streifeneder ortho.production GmbH exports to more than 100 countries.  Streifeneder ortho.production GmbH wins the "red dot design award" for the knee joint KINEGEN.stream.

2010 A new building is purchased for Streifeneder ortho.production GmbH in Emmering.

Opening of the branch Streifeneder India, located in Gurgaon/Haryana.

Establishment of distribution structures in Latin America.

Relocation of Streifeneder ortho.production to the new building with modern training and education-, logistics- and administration centre.

Foundation of Streifeneder Training Centre in Emmering.

Grand opening of Streifeneder Training Centre, with focus on national and international markets.

Streifeneder ortho.production GmbH wins the "red dot design award" for the therapeutic shoe Pluto.

2013 The US-American distribution partner Euro International, located in Tampa/Florida, is integrated in the company as Streifeneder USA.

2014 Streifeneder group receives a new corporate design with new company logo.

New partner and distributor BroadBay launches distribuion in United States and Canada.

Development of prosthetic feet GO.smart and GO.free.Florian Streifeneder joins the management as Member of the Executive Board.



# Quality is our Claim

We are convinced that only constant technical innovation and development is the key to a steady improvement of products and optimal patient care. We apply high standards to be able to offer each of our clients exactly those high-quality products he requires. Each of our products is subject to a continuous quality planning, quality control, quality monitoring and quality improvement. In order to be able to satisfy even most individual customer requirements and also in order to close product-related gaps in the market, it is essential to have our own production series with large lot sizes, but to also offer products with very individual unit numbers.

Despite the rapid development of the export business within the last years and the opening up of new markets such as Brazil, we still value Germany as our location to do business.

We are proud of the quality standard "Made in Germany" and even in times of a continuously increasing cost pressure and growing competition due to globalization, we still produce predominantly in Germany.



## Quality management

More than ninety years of experience, as well as the certified quality management system we introduced in 1998 according to EN ISO 13485; ensure highest quality level.

This quality management system is applied to all business divisions. Especially our product development division makes sure that the high level of quality is not only maintained but steadily increased. Thus, we ensure that we always meet the raising demands of our clients in terms of product development, manufacturing and safety.



Increasing globalisation and changing international security and safety conditions have motivated the World Customs Organisation (WCO) to draft a "Framework of Standards to Secure and Facilitate Global Trade" (SAFE) to establish a global framework for modern and effective risk management of

customs compliances. The aim is to guarantee the security and safety of a continual international supply chain from the product manufacturer to the end consumer. The concept of European Authorised Economic Operator is an EU Customs security programme that started in 2007 and recognises companies as reliable trade partners as they met the following common criteria: customs compliance, appropriate record-keeping, financial solvency and, where relevant, appropriate security and safety standards.

Streifeneder ortho.production GmbH, as a globally operating company, has met the challenge and is proud to announce that it has been granted Authorised Economic Operator (AEO-F) certification by German customs in January, 2013, which officially regards the company as a reliable trade partner. The certificate number is DE AEO-F 115235.

Because of this we can do even better at achieving our goal that you receive our products as quickly as possible. An important part of our delivery time concept and a valuable time saver. Part of our comprehensive safety concept is that our company is protected against entry by unauthorized persons and keep our shipments to you received the highest security and packaging standards. With this we contribute our share in building a secure supply chain.

# Declaration of conformity

As manufacturer with sole responsibility, Streifeneder ortho.production GmbH declares that the products referred to in this catalog conform to the requirements of the regulation (EU) 2017/745 for medical devices (MDR). In order to comply with your documentation requirements, please paste the removable item labels of the products used onto the Streifeneder patient certificate and completely fill out the patient data. In case of a complaint, by means of this customer-/ patient documentation the compliance with all applicable technical guidelines for the supply with orthopaedic aids as well as the conformity with legal obligations due to the medical devices legislation can be documented.

# Contacting us

Communication is a must in a working relationship. Your personal contact to our staff members in the internal sales department as well as our field service is the base of our successful collaboration. It is our goal to react swiftly and efficiently to all of your wishes, to answer all of your questions and to keep all of the promises we make for our products. Please contact us, we are looking forward to hearing from you!

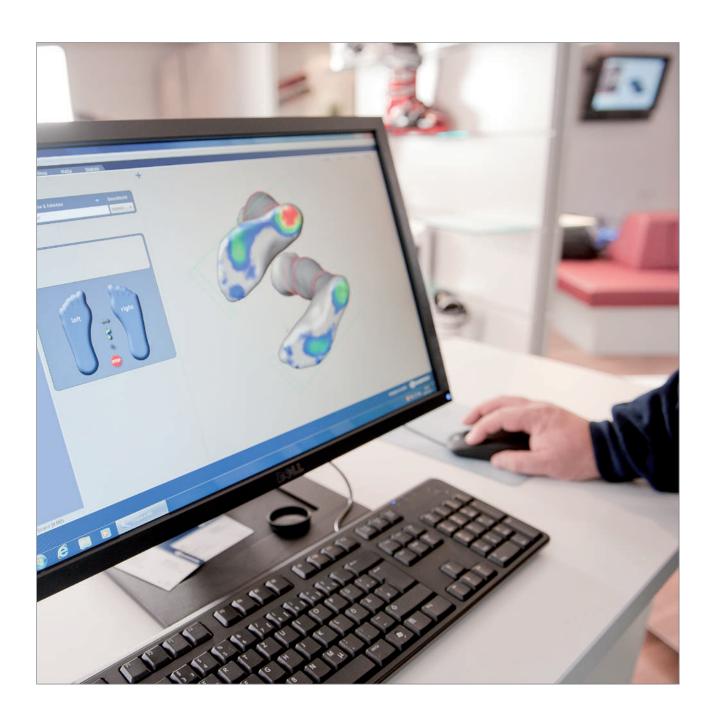


Via our general office switchboard at +49 8141 6106-0 your call will be directed to the staff member in charge. Of course, you can also send your request by email to service@streifeneder.de.

# Development & Production

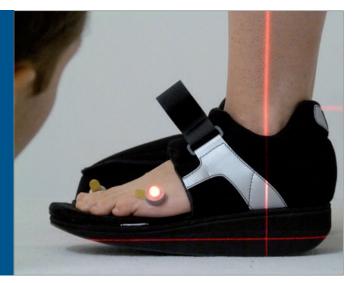
Experience technology, create technology, utilize technology – keep track of development and concentrate synergies. It is a vital part of our companys' philosophy to continually optimize our operational procedures and production processes. This is why we define the economic growth of our company by our perpetual increase in production efficiency. The creativity, the commitment and the special professional skills of each of our members of staff, as well as our state-of-the-art production facilities are our guarantor for satisfied customers.

Our equipment in terms of up-to-date drawing programs (3D-CAD), simulation software (FEM-calculation) to the point of multi-axial machining centers helps our engineers and orthopaedic technicians to assure and further expand our market position.



We subject ourselves and our products to highest quality standards. All of our orthoses have been extensively tested to prove their medical efficacy. Therefore our customers receive exactly what they can expect from us - best quality and long-lasting products.

See the quality of our products and the comprehensive service that we have to offer for yourself!



# Training Centre Streifeneder ortho.training

In order to stay competitive and in order to meet the growing requirements of the patients, it is no longer enough to just use high quality orthopaedic products. Profound practical skills on the basis of current scientific research and findings creates optimal conditions to always react competently and confidently in daily practice. In order to convey valuable expertise as well as detailed knowledge to specialists in orthopaedic and orthopaedic shoe technology as well as physiotherapy and podiatry, we have originated the Training Centre Streifeneder ortho.training in Emmering.

A spacious auditorium (AudiMax) with 160 seats and a fully equipped workshop with 15 work stations, a machine room as well as a patient fitting room and a plaster room on approx. 1.000 sqm offer more than optimal conditions for a qualified advanced and continuous education on the highest level. Modern tools such as multimedia equipment, a fully equipped gait analysis laboratory, course materials and teaching aids that meet the demands of our clients are also part of our standards.





Our meticulously elaborated seminar program comprehends more than 50 events per year centered around topics such as silicone processing, pre-preg processing, synthetic materials or gait analysis. With a flexible program planning on our part, we are also able to react to individual customer's wishes and to offer seminars about special subjects upon request. In order to guarantee an array of seminars that is as broad as possible we regularly invite high-carat external guest lecturers to our training centre Streifeneder ortho.training.

You can download our current seminar calendar with further information about all of our seminars from our website at www.streifeneder.com/training.

Of course, we will also gladly send it to you by post or email. Please feel free to contact us at: training@streifeneder.de or by telephone +49 8141 6106-200.

We are looking forward to hearing from you!



# The Human Body

The human body is an exceptional complex synthesis of the arts, and functions only by the interaction of various body systems.

In order to better understand human anatomy, the body systems are distinguished as follows

- Bone and skeletal system: The bone system includes all bones (approx. 200) and joints.
- Muscular system: This contains also the auxiliary elements of the muscles such as e. g. tendons, ligaments, bursae and tendon sheaths. The muscle is able to contract, enabling two bones connected by a joint to move. The tendon connects the muscle to the bone and the effector is being moved.
- Locomotory system: Altogether, the bone system and the muscular system are named the musculoskeletal system (locomotion), and special attention is paid to this system here in our orthotics catalogue.
- Nervous system: Outside of the central nervous system (brain and spinal marrow), the peripheral nervous system is distinguished between motoric and autonomic nerves. The nervous system is responsible for receiving, processing and transmitting of stimuli and most important, has a coordination function.
- Sensory and skin system: By means of the sensory and skin system, environmental stimuli such as e. g. pression, temperature, light and sounds can be processed.
- Vascular system: The vascular system is divided into arterial, venous and lymphatic vascular system.
- Internal organs: Heart and blood vessels, blood- and immune system, hormone glands, respiratory tract, digestive system, urinary and sexual organs.



# **Orthotics**

Orthopaedics is the science of treatment of inherited or acquired deformities or functional disorders of the musculoskeletal system (bones, joints, muscles, tendons).

The musculoskeletal system is one of the largest organ systems of the human body and may be affected by many various deformations, e. g. growth, functional disorders, injuries and diseases.

The primary target of orthotics is to provide proper aids and appliances for restricted or non-functional body parts (joints).

Generally, supports, orthoses help to maintain physical abilities in the sense of

- Stabilisation
- Immobilisation
- Relief
- Guidance
- Correction

The construction of an orthosis not only depends on the anatomic condition of the corresponding body part, but also on the mechanical laws of static, dynamics and the lever rule.

A classic orthosis however is made of solid materials. It is firm, stiff, supports from the outside and works based on the materials used, e. g. a plastics brace immobilises and guides the joint.

The feet are the basis of the human body. They are the mostly used body parts and have to carry the complete body weight when walking upright. They bear all strains during walking, running and jumping. Alone the achilles tendon of the foot, is able to withstand a weight of approx. 1 ton. Despite its extreme stability, the foot is a filigree masterpiece of nature. It consists of 26 bones, 27 joints, 32 muscles and tendons, 107 ligaments and 1.700 nerve endings.

Roughly, the human foot can be divided into forefoot, midfoot and hindfoot. The short and long foot muscles brace the foot arch and enable the foot to accomplish various movements. Normally, every healthy foot has a medial arch and a metatarsal arch, but there are also malpositions such as splay-, flat feet and pes valgus. Heel and forefoot are carrying the biggest part of the body weight, whereas there is relatively little weight load on the toes as well on the outer edges of the foot.



The connection joint between foot and lower thigh is the ankle joint. A distinction is made between upper and lower ankle joint. The upper ankle joint consists of shin bone, calf bone tip and ankle bone (Talus). It allows the motion between foot and lower thigh, and is responsible for lifting and lowering the foot. These movements are important for the flexing action during walking. Furthermore, they provide repulsion force for jumping. The upper ankle joint is the mostly loaded joint of the human body. It is especially injury-prone, because the natural stability of the joint decreases while lowering the foot. Therefore, the upper ankle joint is often sprained or twisted. When this happens, the ligaments of the upper ankle joint can become overstretched, strained or even torn. Fractures of the ankle, damages of the cartilage and joint injuries are possible further consequences. Existing malpositions of the foot and misloads on the joint, are the basis for further damages to the upper ankle joint.

Even though the lower ankle joint is anatomically divided into two sections, it forms one functional unit. In this joint, the foot moves against the ankle bone in the sense of lifting the inner foot edge (supination/inversion) respectively lifting the outer foot edge (pronation/eversion). It is used especially during standing on inclined ground or uneven terrain. The lower ankle joint guide is supported by an extensive ligament construction.

Orthopaedic aids are playing an important role for the treatment of foot- and ankle joint injuries as well as medical conditions of the locomotory system. Streifeneder ortho.production offers a wide range ortheses, which are described in detail on the following pages.



# MalleoSupport.fix / MalleoSupport.fix-cool

Ankle orthosis for stabilisation on one level

## Mode of Action

- the anatomically shaped outer shells of the ankle orthoses (MalleoSupport. fix with moulding-foam padding, MalleoSupport.fix-cool with mouldingfoam padding and air-gel cushion), stabilise the ankle joint together with the continuously adjustable hook- and loop fasteners and prevent uncontrolled motion in regards to pro- or supination
- padding made of moulding-foam and velours fabric of Coolmax-material for optimal wearing comfort during rehabilitation phase; coolable air-gel cushions for the acute phase



- capsular ligament injury at the upper ankle joint
- distortion of the upper ankle joint (supination trauma)
- chronic instability / ligament insufficiency
- post-surgical rehabilitation
- reduces the wearing period of cast protection

#### Contraindication

- material interactions / allergies
- do not wear directly on injured, irritated or damaged skin
- fresh, instable fractures
- angiopathy (oedemata)

Designation	hight	Size	Colour	Item-No.
MalleoSupport.fix-cool with air-gel cushion and moulding-foam padding	25 cm	One size	anthracite	50R1
MalleoSupport.fix with moulding-foam padding	25 cm	One size	anthracite	50R2
only air-gel cushion				50R11

The positive effect is only guaranteed if the orthosis is worn together with a shoe.



MalleoSupport.fix resp. MalleoSupport.fix-cool can be worn on the left or right side. Do not use the moulding-foam padding together with the air-gel cushions!







air-gel cushion





50R2



# ValguSupport.night

Hallux valgus correction splint (night splint)

#### Mode of Action

- ValguSupport.night is mainly worn at night and without shoes
- constant wearing achieves stretching of the soft tissue and the joint capsule
- by the effect of small forces, the big toe is brought into correct axial position

#### Indication

• hallux valgus – conservative and post-operative

#### Contraindication

- material interactions/allergies
- do not wear directly on injured, irritated or damaged skin
- blood circulatory and lymphatic disorders
- sensory disorders of the feet (e.g. diabetes mellitus)
- arthritis urica (gout attack)
- not suitable for walking

Shoe size	side	Item-No.
34 – 36	left	192P1/L1
37 – 40	left	192P1/L2
41 – 48	left	192P1/L3
34 – 36	right	192P1/R1
37 – 40	right	192P1/R2
41 – 48	right	192P1/R3



The correct size of the ValguSupport.night is determined by the patients' shoe size. The orthosis is worn without shoe.





# **Ankle Foot Orthosis**

Foot postural support orthosis, made of Streifylen (PE)

#### Mode of Action

- optimal immobilisation of the lower leg
- due to complete immobilisation, this orthosis can be used as night splint
- ready to fit semi-finished product, made of thermoplastic mouldable

## Indication

- post-operative immobilisation of the lower leg
- drop-foot prophylaxis
- dorsal flexor resp. peroneal paralysis

- material interactions/allergies
- do not wear directly on injured, irritated or damaged skin
- circulatory disorders, venous or lymphatic return disorders, lymph oedema
- sensory disorders (e.g. polyneuropathy)instable fractures of the lower leg

Ball width	Foot lenght	Colour	Item-No.
9.5 cm	26 cm	white	194P1/L1
10.5 cm	28 cm	white	194P1/L2
11.5 cm	30 cm	white	194P1/L3
9.5 cm	26 cm	white	194P1/R1
10.5 cm	28 cm	white	194P1/R2
11.5 cm	30 cm	white	194P1/R3
9.5 cm	26 cm	caucasian	194P2/L1
10.5 cm	28 cm	caucasian	194P2/L2
11.5 cm	30 cm	caucasian	194P2/L3
9.5 cm	26 cm	caucasian	194P2/R1
10.5 cm	28 cm	caucasian	194P2/R2
11.5 cm	30 cm	caucasian	194P2/R3
	9.5 cm 10.5 cm 11.5 cm 9.5 cm 10.5 cm 10.5 cm 11.5 cm 9.5 cm 10.5 cm 10.5 cm 10.5 cm	9.5 cm 26 cm 10.5 cm 28 cm 11.5 cm 30 cm 9.5 cm 26 cm 10.5 cm 28 cm 11.5 cm 30 cm 9.5 cm 26 cm 10.5 cm 28 cm 11.5 cm 30 cm 9.5 cm 26 cm 10.5 cm 28 cm 10.5 cm 28 cm 10.5 cm 28 cm	9.5 cm 26 cm white 10.5 cm 28 cm white 11.5 cm 30 cm white 9.5 cm 26 cm white 10.5 cm 28 cm white 10.5 cm 28 cm white 11.5 cm 30 cm white 9.5 cm 26 cm caucasian 10.5 cm 28 cm caucasian 10.5 cm 26 cm caucasian







197P1



197P15

# PeroSupport

Peroneal spring thermoplastically mouldable, made of polypropylene (PP), including calf pad

#### Mode of Action

- ready to fit semi-finished product allows quick and individual production of a function-adjuvant orthosis type AFO
- lower leg orthosis consists of injected polypropylene, which is a multi-phase copolymer and features an optimal combination of good impact resistance as well as high rigidity
- lower leg orthosis can be used for patients with dorsal-extension deficiency of the foot, resulting in drop foot gait
- lower leg orthosis limits the plantar flexion in the upper ankle joint and therefore causes lifting of the foot during swing phase

#### Indication

- drop foot
- peroneal paresis
- hemiplegics with mainly limp tip toe position

#### Contraindication

- material interactions/allergies
- do not wear directly on injured, irritated or damaged skin
- weight limit: 120 kg
- foot or ankle deformities
- swellings and dilation of the calf skin
- sensory disorders (e.g. polyneuropathy)
- diabetic foot syndrome/-ulcers
- heavy circulatory disorders/lymphoedema

size	side	shoe size	height/sole length	Item-No.
S	left	35 – 37	29 cm/23 cm	197P1/L1
М	left	37 – 39	31 cm/24 cm	197P1/L2
L	left	39 – 41	34 cm/26 cm	197P1/L3
XL	left	41 – 44	39 cm/28.5 cm	197P1/L4
S	right	35 – 37	29 cm/23 cm	197P1/R1
М	right	37 – 39	31 cm/24 cm	197P1/R2
L	right	39 – 41	34 cm/26 cm	197P1/R3
XL	right	41 – 44	39 cm/28.5 cm	197P1/R4

## Spare part: Calf pad

side	Colour	Shoe size	Item-No.
left	white	35 – 37 mm	197P15/L1
left	white	37 – 39 mm	197P15/L2
left	white	39 – 41 mm	197P15/L3
left	white	41 – 44 mm	197P15/L4
right	white	35 – 37 mm	197P15/R1
right	white	37 – 39 mm	197P15/R2
right	white	39 – 41 mm	197P15/R3
right	white	41 – 44 mm	197P15/R4

The positive effect is only guaranteed if the orthosis is worn together with a shoe.



The one-piece closing calf pad is made of non-irritant, synthetic and smooth material and can be fixed to the orthosis in only one step. Due to this construction, riveting is not necessary any longer. The calf cushions are removable and machine washable.Orthosis can be finished by use of a hot-air gun.





Ankle-Foot-Orthosis, dynamic, made of carbon-Prepreg, including 2 sets of cushioning pads

#### Mode of Action

- the PeroSupport.tec ankle-foot-orthosis can be used for patients suffering from dorsal extension deficiency of the foot, resulting to the so-called
- the PeroSupport.tec ankle-foot-orthosis limits the plantar flexion in the upper ankle joint and therefore causes the foot to lift during swing phase
- magnetic closure simplifies opening and closing with one hand
- great energy storage and -return by carbon-Prepreg material

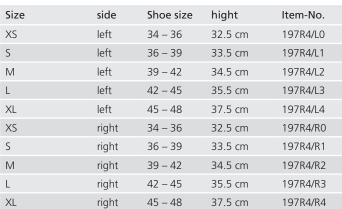
#### Indication

- peroneal paresis
- · weakness of dorsiflexion of the foot
- drop foot
- hemiplegics with mainly limp tip toe position

#### Contraindication

- material interactions/allergies
- do not wear directly on injured, irritated or damaged skin
- · weight limit: 120 kg
- foot or ankle deformities
- swellings and dilation of the calf skin
- sensory disorders (e.g. polyneuropathy)
- diabetic foot syndrome/-ulcers
- · heavy circulatory disorders/lymphoedema

Attention: Persons and patients with heart pacemakers or other implanted electronic systems must obey the warnings of their supplier about handling magnetic material.







Description	Size	side	Calf circum- ference	Item-No.
3 x pads, 1 x magnetic fastener, 10 x velcro dots	XS – XL	left + right	up to 52 cm	197R10

The positive effect is only guaranteed if the orthosis is worn together with a shoe.



The PeroSupport.tec may be customised to foot shape and -size by cutting the sole as per requirements. The supplied microfleece insole can be cut into shape as well. Carbon-pre-preg is not thermo-formable.





magnetic closure of the trade mark Fidlock



cuttable walking sole

23





# Fidlock Magnetic Closure for orthoses

#### Material

- synthetic material and stainless steel
- weight: 22 g
- load capacity: 70 kg
- magnetic flux density: in closed condition approx. 4mT at a distance of 25,4 mm to the closure

## Application

• two-piece system to close strap connections of orthoses

## Characteristics

- easy to handle with one hand, both sections close automatically
- easy opening by pulling the zipper

PU = 1 pc.

Attention: Persons and patients with heart pacemakers or other implanted electronic systems must obey the warnings of their supplier about handling magnetic material.

Light width	Dimensions L x W	Strap passage	Item-No.
25 mm	74 x 33 x 13 mm	2 mm	44P20/25





calf-strap continuously adjustable by Y-hook- and loop fastener



cuttable walking sole

# PeroSupport.pro

Ankle-Foot-Orthosis with additional calve stabilisation, made of carbon-Prepreg, dynamic, including 2 sets of cushioning pads

#### Mode of Action

- dynamic re-adjustment of the foot
- restriction of plantar flexion and support of dorsal flexion
- prevents lateral ankle twisting (supination position)
- prevents side-slips (lateralisation)
- great energy storage and -return by carbon-Prepreg material

#### Indication

- peroneal paresis
- weakness of dorsiflexion of the foot
- Malalignment of the ankle joint as a result of weakness of dorsiflexion of the foot

#### Contraindication

- material interactions/allergies
- do not wear directly on injured, irritated or damaged skin
- weight limit: 120 kg
- deformation of the foot or ankle
- swelling and extension of the calf skin
- sensory insensitivity (e.g. diabetic polyneuropathy)
- diabetic foot syndrome/ulcer
- severe circulatory disorders/congestive oedema

Size	side	Shoe size	hight	Item-No.
S	left	36 – 39	34 cm	197R6/L1
M	left	39 – 42	35 cm	197R6/L2
L	left	42 – 45	35 cm	197R6/L3
XL	left	45 – 48	36 cm	197R6/L4
S	right	36 – 39	34 cm	197R6/R1
M	right	39 – 42	35 cm	197R6/R2
L	right	42 – 45	35 cm	197R6/R3
XL	right	45 – 48	36 cm	197R6/R4

## Spare pads

-   -   -   -				
Description	Size	side	Calf circum- ference	Item-No.
calf pad with fastener, 12 hook and loop dots	36 – 42	left + right	up to 52 cm	197R7/1
calf pad with fastener, 12 hook and loop dots	42 – 48	left + right	up to 52 cm	197R7/2

The positive effect is only guaranteed if the orthosis is worn together with a shoe.



The PeroSupport.pro may be customised to foot shape and -size by cutting the sole as per requirements. The supplied microfleece insole can be cut into shape as well. Carbon-pre-preg is not thermo-formable.



# PediSupport.dorsal

Foot Postural Support Orthosis (Dorsal Night Stabilisation Splint)



#### Mode of Action

- keeps the foot in a 90°-position
- prevention of a pes equinus position of the foot and thereby of a contraction of the achilles tendon
- slight elongation of the plantar fascia during night
- soothes plantar foot pain in the morning

#### Indication

- plantar fasciitis
- achilles tendonitis
- pes equinus position
- metatarsalgia
- for night postural support
- for contracture prophylaxis

- material interactions/allergies
- do not wear directly on injured, irritated or damaged skin
- plantar flexion contracture of more than 10°
- severe plantar flexion spasms
- not suitable for walking
- diabetic foot syndrome/-ulcers
- heavy circulatory disorders/lymphoedema

Size	Shoe size	Colour	Item-No.
M	36 – 39	black	191R1/M
L	40 – 44	black	191R1/L



# PediSupport.night

Foot Postural Support Orthosis (Night Stabilisation Splint)

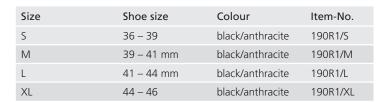
#### Mode of action

- keeps the foot in a 90°-position
- prevention of a pes equinus position of the foot and thereby of a contraction of the achilles tendon
- optimal immobilisation of the lower leg
- separate wedge to stretch the plantar fascia
- additional calf pad to take load of the heel for bedridden patients (see detail photo)

#### Indication

- plantar fasciitis
- post-operative immobilisation of the lower leg
- dorsal flexor resp. peroneal paralysis
- for night postural support
- pes equinus position

- material interactions/allergies
- do not wear directly on injured, irritated or damaged skin
- plantar flexion contracture of more than 10°
- severe plantar flexion spasms
- not suitable for walking







calf pad for heel relief



wedge for stretching of the plantar fascia



## PneumoWalker

Pneumatic lower leg-foot orthosis for immobilisation in a defined position

lightweight construction with stabilisation elements and integrated pneumatic system

#### Mode of Action

- immobilisation of the lower leg-foot region in a defined position (90°-position)
- an individually inflatable air chamber (integrated pneumatic system with ventilation unit) provides for a precisely fitting postural support of the foot and the lower leg within the shoe
- especially lightweight construction with lateral stabilisation element made of aluminum
- rounded sole stimulates a natural gait pattern
- individual adjustment possibilities through hook and loop fasteners
- soft, cushioned, washable interior shoe for high wearing comfort

## Indication

- ligament, soft part or tendon injuries
- conservative and postoperative treatment of stable fractures of the foot, ankle and distal lower leg
- after hallux-valgus-surgery
- pre- or postoperative/posttraumatic immobilisation
- toe arthroplasty

## Contraindication

- material interactions/allergies
- do not wear directly on injured, irritated or damaged skin
- circulatory disorders
- weight limit: 120 kg
- not suitable for high activity
- use only with walking supports

Size	Shoe size	Item-No.
S	35 – 37.5	64R1/S
М	38 – 42.5	64R1/M
L	43 – 45.5	64R1/L
XL	> 46	64R1/XL

## Replacement part

Description	Size	Item-No.
Inner Shoe	S	64R11/S
Inner Shoe	M	64R11/M
Inner Shoe	L	64R11/L
Inner Shoe	XL	64R11/XL

Delivery does include the inner shoe.



For better hygiene, the body protection tricot sleeve item-no. 99P12 can be pulled over the leg.

Two separate paddings for additional cushioning of delicate areas and further padding to protect the toes are included in the delivery.

The PneumoWalker can be worn on the right and the left side.



64R1



64R11







# AeroWalker

Pneumatic lower leg-foot orthosis for immobilisation in a defined position

• shell construction with integrated air cushion

#### Mode of Action

- immobilisation and stable resting position of the ankle- foot area in designated 90° position by hard shell construction
- integrated, individually inflatable air chamber surrounds the entire foot from the ankle area to the mid foot and provides customised foot- and calf position in the shoe
- rocker sole with profile benefits a natural gait pattern
- adjustable, removable toe protection prevents concussion damages
- rounded edge, slightly bent to the outside, in the calf area prevents bruises
- low weight and breathability by slotted shell design
- together with the heel wedges, item-no. 62R13, the AeroWalker can also be used for relief of injuries of the achilles tendon
- soft, padded and washable inner shoe for high wearing comfort

#### Indication

- ligament, soft part or tendon injuries
- conservative and post-surgical therapy of stable fractures of the foot, the ankle and the distal lower leg
- severe ankle distortion
- after hallux-valgus-surgery
- pre- or postoperative/posttraumatic immobilisation
- toe arthroplasty

#### Contraindication

- material interactions/allergies
- do not wear directly on injured, irritated or damaged skin
- circulatory disorders
- · sensibility disorder/polyneuropathy
- weight limit: 200 kg
- not suitable for high activity
- · use only with walking supports

• equipped with breathable, perforated padded inner sole

Size	Shoe size	Item-No.
S	35 – 37.5	68R1/S
M	38 – 42.5	68R1/M
L	43 – 45.5	68R1/L
XL	> 46	68R1/XL

## Replacement part

Description	Size	Item-No.
Inner Shoe	S	68R11/S
Inner Shoe	M	68R11/M
Inner Shoe	L	68R11/L
Inner Shoe	XL	68R11/XL

Supplied with inner shoe and two underwear-stockings.



For hygienic reasons, two chaning socks, that protect the inner shoe, are included in the delivery.

Thee separate cushions for protect of delicate areas are included also in delivery.

The AeroWalker can be worn on the right and the left side.







68R11



# AeroWalker.short

Pneumatic lower leg-foot orthosis for immobilisation in a defined position, short version

• shell construction with integrated air cushion

#### Mode of Action

- immobilisation and stable resting position of the ankle- foot area in designated 90° position by hard shell construction
- integrated, individually inflatable air chamber surrounds the entire foot from the ankle area to the mid foot and provides customised foot- and calf position in the shoe
- rocker sole with profile benefits a natural gait pattern
- adjustable, removable toe protection prevents concussion damages
- rounded edge, slightly bent to the outside, in the calf area prevents bruises
- low weight and breathability by slotted shell design
- soft, padded and washable inner shoe for high wearing comfort

#### Indication

- ligament, soft part or tendon injuries
- conservative and post-surgical therapy of stable fractures of the foot, the ankle and the distal lower leg
- severe ankle distortion
- after hallux-valgus-surgery
- pre- or postoperative/posttraumatic immobilisation
- toe arthroplasty

# Contraindication

- material interactions/allergies
- do not wear directly on injured, irritated or damaged skin
- circulatory disorders
- sensibility disorder/polyneuropathy
- weight limit: 200 kg
- not suitable for high activity
- use only with walking supports

#### Feature

• equipped with breathable, perforated padded inner sole

Size	Shoe size	Item-No.
S	35 – 37.5	69R1/S
M	38 – 42.5	69R1/M
L	43 – 45.5	69R1/L
XL	> 46	69R1/XL

## Replacement part

Description	Size	Item-No.
Inner Shoe	S	69R11/S
Inner Shoe	М	69R11/M
Inner Shoe	L	69R11/L
Inner Shoe	XL	69R11/XL

Supplied with inner shoe and two underwear-stockings.



For hygienic reasons, two chaning socks, that protect the inner shoe, are included in the delivery.

Thee separate cushions for protect of delicate areas are included also in delivery.

The AeroWalker.short can be worn on the right and the left side.





69R11



# Heel wedges, 5-pc. Set

## Mode of Action



- depending on orthosis size, use wedges of different sizes
- these are positioned over the black insole of the orthosis and firmly attached by means of the adhesive coat
- causes plantar flexion
- in the course of rehabilitation, the wedges can be removed according to the doctor's advice
- the wedges can be used for the right and left foot and can be individually customised
- the degree of plantar flexion is approx. 22° with three wedges, approx. 16° with two wedges and approx. 10° with one wedge

#### Indication

- due to plantar flexion, relief of achilles tendon during achilles tendonitis
- post-surgical care after achilles tendon reconstruction and achilles tendon ruptures

- material interactions/allergies
- do not wear directly on injured, irritated or damaged skin

Size	Item-No.
One size	62R13



# Anatomical Insole Blank for Walker

- for more comfort and better fit in pneumatic calf-foot orthoses
- anatomical shape for optimal support of the forefoot arch and medial arch of the foot
- individually adjustable e.g. by sanding
- blank provides time-saving customisation of the walker
- supplied with black micro-fleece cover for better cleaning
- 10 mm (average) thick soft foam (shore 15 18) for cushioning and shock absorption

Size	Length	Width	Item-No.
35 – 36	29.5 cm	11.5 cm	62R15/35
37 – 38	30.5 cm	12.0 cm	62R15/37
39 – 40	31.5 cm	12.5 cm	62R15/39
41 – 42	33.0 cm	13.0 cm	62R15/41
43 – 44	34.0 cm	13.5 cm	62R15/43
45 – 46	35.5 cm	14.0 cm	62R15/45
47 – 48	36.5 cm	14.5 cm	62R15/47

Ordering example: "62R15/35" + "L" (left side) or "R" (right side)





# Silicone Heel Wedge

## Mode of Action

- the silicone heel wedge (leg length compensation) consists of 100 % viscoelastic silicone
- reduces the shock impact load within the body by up to 40 %
- heel cups help to relieve pain and to avoid arthroses of ankle-, knee- and hip joint
- the heel wedge is optimally suited for balancing out differences in leg length

#### Indication

- static spinal conditions
- acute and chronic tendoperiosthosis
- arthrosis of ankle-, knee- and hip joint

- material interactions/allergies
- do not wear directly on injured, irritated or damaged skin

Size	Shoe size	Thickness	Item-No.
S	35 – 37 mm	3 mm	192P20/3S
M	38 – 40 mm	3 mm	192P20/3M
L	41 – 43 mm	3 mm	192P20/3L
XL	44 – 46	3 mm	192P20/3XL
S	35 – 37 mm	5 mm	192P20/5S
M	38 – 40 mm	5 mm	192P20/5M
L	41 – 43 mm	5 mm	192P20/5L
XL	44 – 46	5 mm	192P20/5XL
S	35 – 37 mm	8 mm	192P20/8S
M	38 – 40 mm	8 mm	192P20/8M
L	41 – 43 mm	8 mm	192P20/8L
XL	44 – 46	8 mm	192P20/8XL
S	35 – 37 mm	10 mm	192P20/10S
M	38 – 40 mm	10 mm	192P20/10M
L	41 – 43 mm	10 mm	192P20/10L
XL	44 – 46	10 mm	192P20/10XL



# Silicone Heel Cup

without heel spur pad



- the heel cups consist of 100 % viscoelastic silicone
- provides soft and gentle tread
- heel cups help to relieve pain and to avoid arthroses of ankle-, knee- and hip ioint
- relieves irritations of the achilles tendon

#### Indication

- arthrosis of ankle-, knee- and hip joint
- achillodynia

- material interactions/allergies
- do not wear directly on injured, irritated or damaged skin

Size	Shoe size	Item-No.
S	36 – 38	192P11/S
M	39 – 41 mm	192P11/M
M/L	42 – 43	192P11/ML
L	44 – 46	192P11/L





# Silicone Heel Cup

with heel spur pad





- provides soft and gentle tread
- heel cups help to relieve pain and to avoid arthroses of ankle-, knee- and hip ioint
- relieves irritations of the achilles tendon
- due to the heel spur adjustment, an additional strain-relief of the heel spur root is achieved



- arthrosis of ankle-, knee- and hip joint
- achillodynia
- heel spur

- material interactions/allergies
- do not wear directly on injured, irritated or damaged skin

Size	Shoe size	Item-No.
S	36 – 38	192P10/S
M	39 – 41 mm	192P10/M
M/L	42 – 43	192P10/ML
L	44 – 46	192P10/L





# Silicone Insole

with heel- and longitudinal arch and metatarsal pad

made of 100 % silicone, full length, 5-point shock absorption and metatarsal pad



#### Mode of Action

- the silicone insoles can be inserted in all closed street- and sports shoes
- pads or foot supports already built into the shoe must be removed in order to make sufficient room for the silicone insole
- if necessary, length and width of the forefoot part may be cut to fit
- comfortable massage resp. alternating compression during wearing
- the metatarsal pad provides an erection of the transversal arch
- pain relief for forefoot- and toe deformities

#### Indication

- arthrosis of ankle-, knee- and hip joint
- degenerative spinal conditions
- · heel spur
- achillodynia
- metatarsalgia

- material interactions/allergies
- do not wear directly on injured, irritated or damaged skin

Size	Shoe size	Item-No.
XS	35 – 36	192P30/XS
S	37 – 38	192P30/S
M	39 – 40	192P30/M
L	41 – 42	192P30/L
XL	43 – 44	192P30/XL



#### Venus

Partial Foot Decompression Shoe, short version

#### Mode of Action

- the main feature of the Forefoot Relief Shoe is a forward rising and shortened outsole (negative heel).
- pressure relief and pressure distribution during the gait cycle
- benefits the healing process of wounds in the forefoot area
- the forefoot relief shoe encompasses the heel and tarsus with a softly padded socket
- Heel cap, hook- and loop straps and fasteners prevent slipping in the shoe
- Inner lining fabric of the shoe as well as cover fabric of the padded insole are anti-bacterially equipped based on ammonium-silane-compound; this limits colonisation of the material with certain bacterial strains (e.g. Staphylokokkus aureus, Klebsiella pneumoniae)

#### Indication

• post-surgical for corrections and forefoot injuries

#### Contraindication

- Do not use for the above indications if sufficient pressure relief cannot be achieved through the application.
- do not wear directly on injured, irritated or damaged skin (Protective bandage, sock)
- do not use for unstable or fracture prone diabetic neuro-osteoarthropathic foot syndromes, DNOAP (e.g. florid Charcot foot).
- use only with walking supports
- weight limit: 120 kg

#### Special feature

In connection with wounds in the foot, and ankle area, pressure complaints or other disorders can often be noticed too late or not at all. We therefore recommend that you check your feet, their bandages and orthopaedic aids daily. In case of occurring disorders, specific questions, delays in wound healing or unauthorised discontinuation of therapy ("incompliance"), please consult your attending physician or your medical supply store.

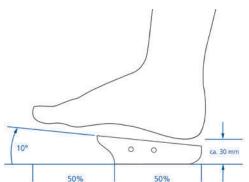
Shoe size	Inner Shoe Length	Item-No.
36 – 38	approx. 160 mm	200R1/S
39 – 42	approx. 175 mm	200R1/M
43 – 46	approx. 190 mm	200R1/L
47 – 51	approx. 205 mm	200R1/XL

Please put the supplied plastic bag over the patient's foot prior to the first fitting. This will avoid contamination of the shoe with pathogens if size needs to be changed.



The Model Venus can be worn on right or left side.





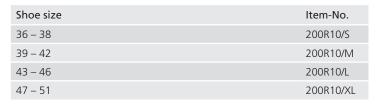


Foot pressure measurement: left daytime shoe, right Venus



## **Accessories Venus**

Forefoot Protection Cap, hook-and-loop on the outside





Shoe size	Item-No.
36 – 38	200R14/S
39 – 42	200R14/M
43 – 46	200R14/L
47 – 51	200R14/XL



200R10



200R14



#### Mars

Heel Relief Shoe

#### Mode of Action

- a padded midfoot roll and a shortened sole construction towards the heel area
- pressure relief and pressure distribution during the gait cycle
- benefits the healing process of wounds in the heel area
- the heel relief shoe encompasses the ankle and tarsus with a softly padded socket
- Hook- and loop fasteners hold the foot in a predefined position and thus prevent slipping in the shoe
- the removable padded insole prevents pressure peaks in the forefoot area
- Inner lining fabric of the shoe as well as cover fabric of the padded insole are anti-bacterially equipped based on ammonium-silane-compound; this limits colonisation of the material with certain bacterial strains (e.g. Staphylokokkus aureus, Klebsiella pneumoniae)

#### Indication

- Wounds in the heel area caused by diabetes mellitus
- peripheral artery occlusive disease (PAOD)
- Other indication independent wound formation in the foot and ankle area
- postoperative and trauma

#### Contraindication

- Do not use for the above indications if sufficient pressure relief cannot be achieved through the application.
- do not wear directly on injured, irritated or damaged skin (Protective bandage, sock)
- do not use for unstable or fracture prone diabetic neuro-osteoarthropathic foot syndromes, DNOAP (e.g. florid Charcot foot).
- use only with walking supports
- weight limit: 120 kg

#### Special feature

In connection with wounds in the foot, and ankle area, pressure complaints or other disorders can often be noticed too late or not at all. We therefore recommend that you check your feet, their bandages and orthopaedic aids daily. In case of occurring disorders, specific questions, delays in wound healing or unauthorised discontinuation of therapy ("incompliance"), please consult your attending physician or your medical supply store.

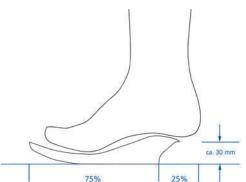
Shoe size	Inner Shoe Length	Inner Shoe Width	Item-No.
35 – 37 mm	approx. 225 mm	approx. 87 mm	203R1/S
38 – 40 mm	approx. 235 mm	approx. 90 mm	203R1/M
41 – 43 mm	approx. 255 mm	approx. 95 mm	203R1/L
44 – 46	approx. 275 mm	approx. 100 mm	203R1/XL

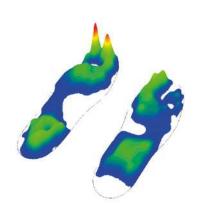
Please put the supplied plastic bag over the patient's foot prior to the first fitting. This will avoid contamination of the shoe with pathogens if size needs to be changed.



The Model Mars can be worn on right or left side.





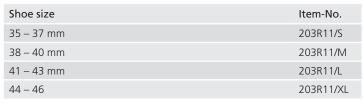


Foot pressure measurement: left daytime shoe, right Mars



## **Accessories Mars**

Heel Protection Cap, hook-and-loop on the outside



Forefoot Protection Cap, hook-and-loop on the outside

Shoe size	Item-No.
35 – 37 mm	203R10/S
38 – 40 mm	203R10/M
41 – 43 mm	203R10/L
44 – 46	203R10/XL







203R10



## Mars S

Heel Relief Shoe

#### Mode of Action

- new sole construction with targeted shifting of the body's centre of gravity to the forefoot and comfortable rolling motion
- velcro longitudinal arch support allows the shoe to be adjusted to the left or right side
- this support can be subsequently processed (e.g. by grinding) or additionally built up - depending on the anatomy of the medial longitudinal arch, thus providing better medial support and relief at the heel.
- a particularly effective and continuous cushioning sole prevents plantar pressure points
- the socket is individually adjustable at the ankle, the top of the foot and the forefoot
- Inner lining fabric of the shoe as well as cover fabric of the padded insole are anti-bacterially equipped based on ammonium-silane-compound; this limits colonisation of the material with certain bacterial strains (e.g. Staphylokokkus aureus, Klebsiella pneumoniae)



- Wounds in the heel area caused by diabetes mellitus
- peripheral artery occlusive disease (PAOD)
- Other indication independent wound formation in the foot and ankle area
- postoperative and trauma



- Do not use for the above indications if sufficient pressure relief cannot be achieved through the application.
- do not wear directly on injured, irritated or damaged skin (Protective bandage, sock)
- do not use for unstable or fracture prone diabetic neuro-osteoarthropathic foot syndromes, DNOAP (e.g. florid Charcot foot).
- use only with walking supports
- weight limit: 120 kg

#### Special feature

In connection with wounds in the foot, and ankle area, pressure complaints or other disorders can often be noticed too late or not at all. We therefore recommend that you check your feet, their bandages and orthopaedic aids daily. In case of occurring disorders, specific questions, delays in wound healing or unauthorised discontinuation of therapy ("incompliance"), please consult your attending physician or your medical supply store.

Shoe size	Inner Shoe Length	Inner Shoe Width	Item-No.
34 – 36	approx. 240 mm	approx. 87 mm	213R1/S
37 – 39 mm	approx. 260 mm	approx. 91 mm	213R1/M
40 – 42	approx. 280 mm	approx. 100 mm	213R1/L
43 – 45	approx. 300 mm	approx. 105 mm	213R1/XL
46 – 48	approx. 320 mm	approx. 109 mm	213R1/XXL

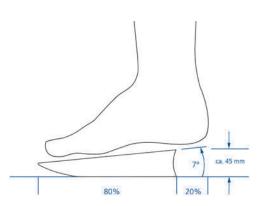
Please put the supplied plastic bag over the patient's foot prior to the first fitting. This will avoid contamination of the shoe with pathogens if size needs to be changed.

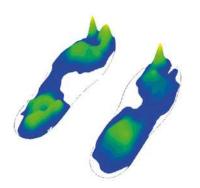


The Model Mars S can be worn on right or left side!









Foot pressure measurement: left daytime shoe, right Mars S



## Mars S Accessories



Shoe size	Item-No.
34 – 36	213R10/S
37 – 39 mm	213R10/M
40 – 42	213R10/L
43 – 45	213R10/XL
46 – 48	213R10/XXL

Heel Protection Cap, hook-and-loop on the outside

Forefoot Protection Cap, hook-and-loop on the outside

Shoe size	Item-No.
34 – 36	213R11/S
37 – 39 mm	213R11/M
40 – 42	213R11/L
43 – 45	213R11/XL
46 – 48	213R11/XXL

Cushion sole, symmetrical shape, made of 10 mm soft foam, velour lamination

Shoe size	Item-No.
34 – 36	213R12/S
37 – 39 mm	213R12/M
40 – 42	213R12/L
43 – 45	213R12/XL
46 – 48	213R12/XXL



213R10



213R11



213R12



#### Saturn

Forefoot Relief Shoe

#### Mode of Action

- main feature is an ascending outsole towards the front (negative heel)
- pressure relief and pressure distribution during the gait cycle
- benefits the healing process of wounds in the forefoot area
- the forefooot relief shoe embraces heel and tarsus with a softly padded shoe upper
- heel cap, hook- and loop fasteners prevent slipping within the shoe
- inner lining fabric of the shoe as well as cover fabric of the padded insole are anti-bacterially equipped based on ammonium-silane-compound; this limits colonisation of the material with certain bacterial strains (e.g. Staphylokokkus aureus, Klebsiella pneumoniae)

#### Indication

- wounds in the forefoot area caused by diabetes mellitus
- peripheral artery occlusions
- other wounds in the forefoot area
- post-surgical after corrections and forefoot injuries

#### Contraindication

- do not use for the above indications, if a sufficient pressure relief cannot be achieved
- do not wear directly on injured, irritated or damaged skin (before application, please cover the skin with wound dressing or a sock)
- do not use for instable or fracture prone diabetic neuro-osteoarthropathic foot syndrome, DNOAP (e.g. florid charcot foot)
- use only with walking supports
- weight limit: 120 kg
- Special feature

In connection with wounds in the foot and ankle area, pressure complaints or other disorders can often be noticed too late or not at all. We therefore recommend that you check your feet, their bandages and orthopaedic aids daily. In case of occurring disorders, specific questions, delays in wound healing or unauthorised discontinuation of therapy ("incompliance"), please consult your attending physician or your medical supply store.

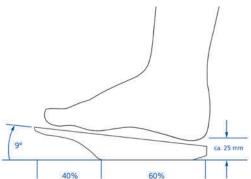


Please put the supplied plastic bag over the patient's foot prior to the first fitting. This will avoid contamination of the shoe with pathogens if size needs to be changed.



Saturn can be worn on left or right side!



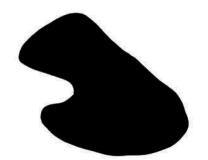




Foot pressure measurement: left balance shoe, right Saturn



## **Accessories Saturn**



Forefoot Protective Cap, with hook and loop fastener on the outside

Shoe size	Item-No.
36 – 37	207R10/XS
38 – 39	207R10/S
40 – 41	207R10/M
42 – 43	207R10/L
44 – 45	207R10/XL



## **Jupiter**

Forefoot Relief Shoe with cube cushion sole

#### Mode of Action

- the main feature of the partial foot decompression shoe is a forward rising and shortened outsole (negative heel).
- pressure relief and pressure distribution during the gait cycle
- benefits the healing process of wounds in the forefoot area
- the partial foot decompression shoe encompasses the heel and tarsus with a softly padded socket
- Heel cap, hook- and loop straps and fasteners prevent slipping in the shoe
- Cube cushion sole for selective pressure relief
- improved slip protection by integrated anti-slip nubs
- Inner lining fabric of the shoe as well as cover fabric of the padded insole are anti-bacterially equipped based on ammonium-silane-compound; this limits colonisation of the material with certain bacterial strains (e.g. Staphylokokkus aureus, Klebsiella pneumoniae)

#### Indication

- Wounds in the forefoot area caused by diabetes mellitus
- peripheral artery occlusive disease (PAOD)
- other indication independent wound formation in the forefoot area
- post-surgical for corrections and forefoot injuries

#### Contraindication

- Do not use for the above indications if sufficient pressure relief cannot be achieved through the application.
- do not wear directly on injured, irritated or damaged skin (Protective bandage, sock)
- do not use for unstable or fracture prone diabetic neuro-osteoarthropathic foot syndromes, DNOAP (e.g. florid Charcot foot).
- use only with walking supports
- weight limit: 120 kg

#### Special feature

In connection with wounds in the foot, and ankle area, pressure complaints or other disorders can often be noticed too late or not at all. We therefore recommend that you check your feet, their bandages and orthopaedic aids daily. In case of occurring disorders, specific questions, delays in wound healing or unauthorised discontinuation of therapy ("incompliance"), please consult your attending physician or your medical supply store.

Shoe size	Inner Shoe Length	Inner Shoe Width	Item-No.
31 – 33	approx. 220 mm	approx. 87 mm	205R1/XS
34 – 36	approx. 240 mm	approx. 91.5 mm	205R1/S
37 – 39 mm	approx. 260 mm	approx. 96 mm	205R1/M
40 – 42	approx. 280 mm	approx. 100.5 mm	205R1/L
43 – 45	approx. 300 mm	approx. 105 mm	205R1/XL
46 – 48	approx. 320 mm	approx. 109.5 mm	205R1/XXL
49 – 50	approx. 340 mm	approx. 115 mm	205R1/XXXL

Please put the supplied plastic bag over the patient's foot prior to the first fitting. This will avoid contamination of the shoe with pathogens if size needs to be changed.

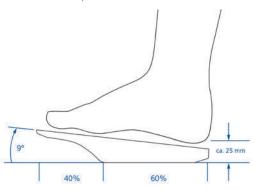


The Model Jupiter can be worn on right or left side. To avoid a pelvic obliquity, use the balance shoe model Sirius.





Outsole with sole spots





Foot pressure measurement: left balance shoe, right Jupiter

# 

# **Accessories Jupiter**





205R10

Shoe size	Item-No.
31 – 33	205R10/XS
34 – 36	205R10/S
37 – 39	205R10/M
40 – 42	205R10/L
43 – 45	205R10/XL
46 – 48	205R10/XXL
49 – 50	205R10/XXXL

Cube cushion sole, symmetrical shape, made of 10 mm soft foam, velour lamination



Shoe size	Item-No.
31 – 33	205R12/XS
34 – 36	205R12/S
37 – 39	205R12/M
40 – 42	205R12/L
43 – 45	205R12/XL
46 – 48	205R12/XXL
49 – 50	205R12/XXXL





## Merkur

Forefoot Relief Shoe with cube cushion sole

#### Mode of Action

- the main feature of the partial foot decompression shoe is a forward rising and shortened outsole (negative heel).
- pressure relief and pressure distribution during the walking cycle
- benefits the healing process of wounds in the forefoot area
- the partial foot decompression shoe encompasses the heel and tarsus with a softly padded socket
- Heel cap, hook- and loop straps and fasteners prevent slipping in the shoe
- Cube cushion sole for selective pressure relief
- improved slip protection by integrated anti-slip nubs
- Inner lining fabric of the shoe as well as cover fabric of the padded insole are anti-bacterially equipped based on ammonium-silane-compound; this limits colonisation of the material with certain bacterial strains (e.g. Staphylokokkus aureus, Klebsiella pneumoniae)

#### Indication

- Wounds in the forefoot area caused by diabetes mellitus
- peripheral artery occlusive disease (PAOD)
- other indication independent wound formation in the foot and ankle area
- post-surgical for corrections and forefoot injuries

#### Contraindication

- Do not use for the above indications if sufficient pressure relief cannot be achieved through the application.
- do not wear directly on injured, irritated or damaged skin (Protective bandage, sock)
- do not use for unstable or fracture prone diabetic neuro-osteoarthropathic foot syndromes, DNOAP (e.g. florid Charcot foot).
- use only with walking supports
- weight limit: 120 kg

#### Special feature

In connection with wounds in the foot, and ankle area, pressure complaints or other disorders can often be noticed too late or not at all. We therefore recommend that you check your feet, their bandages and orthopaedic aids daily. In case of occurring disorders, specific questions, delays in wound healing or unauthorised discontinuation of therapy ("incompliance"), please consult your attending physician or your medical supply store.



Please put the supplied plastic bag over the patient's foot prior to the first fitting. This will avoid contamination of the shoe with pathogens if size needs to be changed.

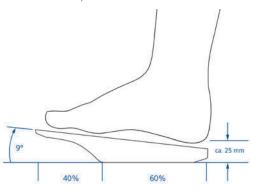


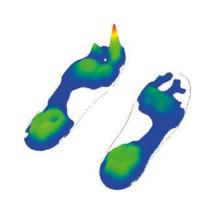
The Model Merkur can be worn on right or left side. To avoid a pelvic obliquity, use the balance shoe model Sirius.





Outsole with sole spot





Foot pressure measurement: left balance shoe, right Merkur

# 

# Accessories Merkur





Shoe size	Item-No.
31 – 33	201R10/XS
34 – 36	201R10/S
37 – 39	201R10/M
40 – 42	201R10/L
43 – 45	201R10/XL
46 – 48	201R10/XXL

201R10

Cube cushion sole, symmetrical shape, made of 10 mm soft foam, velour lamination



Shoe size	Item-No.
31 – 33	201R12/XS
34 – 36	201R12/S
37 – 39	201R12/M
40 – 42	201R12/L
43 – 45	201R12/XL
46 – 48	201R12/XXL

201R12





## Merkur A

Partial Foot Decompression Shoe (Post-Surgical Shoe) with cube cushion sole

#### Mode of Action

- main feature of the the Post-Surgical Shoe is a rigid, slightly ascending outsole towards the front (negative heel)
- pressure relief and pressure distribution during the gait cycle
- benefits the healing process of wounds in the forefoot area
- the Post-Surgical Shoe encompasses the entire foot and ankle area with a softly padded upper
- Hook- and loop fasteners at the wide flap prevent slipping within the shoe
- · Cube cushion sole for selective pressure relief
- the flap can be opened widely and together with the individually adjustable hook- and loop fasteners, it provides sufficient space for bandaged feet
- improved slip protection by integrated anti-slip nubs
- Inner lining fabric of the shoe as well as cover fabric of the padded insole are anti-bacterially equipped based on ammonium-silane-compound; this limits colonisation of the material with certain bacterial strains (e.g. Staphylokokkus aureus, Klebsiella pneumoniae)



- Wounds in the foot- and ankle area caused by diabetes mellitus
- peripheral artery occlusive disease (PAOD)
- other indication independent wound formation in the foot and ankle area
- postoperative and trauma
- Gait unsteadiness (dizziness, visual impairment)

#### Contraindication

- Do not use for the above indications if sufficient pressure relief cannot be achieved through the application.
- do not wear directly on injured, irritated or damaged skin (Protective bandage, sock)
- do not use for unstable or fracture prone diabetic neuro-osteoarthropathic foot syndromes, DNOAP (e.g. florid Charcot foot).
- use only with walking supports
- · weight limit: 120 kg

#### Special feature

In connection with wounds in the foot, and ankle area, pressure complaints or other disorders can often be noticed too late or not at all. We therefore recommend that you check your feet, their bandages and orthopaedic aids daily. In case of occurring disorders, specific questions, delays in wound healing or unauthorised discontinuation of therapy ("incompliance"), please consult your attending physician or your medical supply store.



Please put the supplied plastic bag over the patient's foot prior to the first fitting. This will avoid contamination of the shoe with pathogens if size needs to be changed.

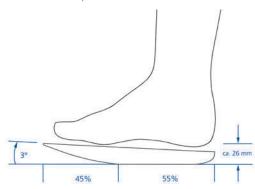


The Model Merkur A can be worn on right or left side. To avoid a pelvic obliquity, use the balance shoe model Sirius.





Outsole with sole spots



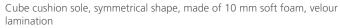


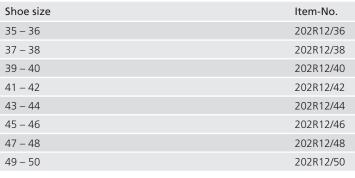
Foot pressure measurement: left balance shoe, right Merkur A

# 400 24 8 8 8

## Accessories Merkur A











#### **Uranus**

Partial Foot Decompression Shoe (Post-Surgical Shoe) with cube cushion sole

#### Mode of Action

- main feature of the the Post-Surgical Shoe is a rigid, slightly ascending outsole towards the front (negative heel)
- pressure relief and pressure distribution during the gait cycle
- benefits the healing process of wounds in the forefoot area
- the Post-Surgical Shoe encompasses the entire foot and ankle area with a softly padded upper
- Hook- and loop fasteners at the wide flap prevent slipping within the shoe
- · Cube cushion sole for selective pressure relief
- the flap can be opened widely and together with the individually adjustable hook- and loop fasteners, it provides sufficient space for bandaged feet
- improved slip protection by integrated anti-slip nubs
- Inner lining fabric of the shoe as well as cover fabric of the padded insole are anti-bacterially equipped based on ammonium-silane-compound; this limits colonisation of the material with certain bacterial strains (e.g. Staphylokokkus aureus, Klebsiella pneumoniae)



- Wounds in the foot- and ankle area caused by diabetes mellitus
- peripheral artery occlusive disease (PAOD)
- other indication independent wound formation in the foot and ankle area
- postoperative and trauma
- Gait unsteadiness (dizziness, visual impairment)

#### Contraindication

- Do not use for the above indications if sufficient pressure relief cannot be achieved through the application.
- do not wear directly on injured, irritated or damaged skin (Protective bandage, sock)
- do not use for unstable or fracture prone diabetic neuro-osteoarthropathic foot syndromes, DNOAP (e.g. florid Charcot foot).
- use only with walking supports
- · weight limit: 120 kg

#### Special feature

In connection with wounds in the foot, and ankle area, pressure complaints or other disorders can often be noticed too late or not at all. We therefore recommend that you check your feet, their bandages and orthopaedic aids daily. In case of occurring disorders, specific questions, delays in wound healing or unauthorised discontinuation of therapy ("incompliance"), please consult your attending physician or your medical supply store.



Please put the supplied plastic bag over the patient's foot prior to the first fitting. This will avoid contamination of the shoe with pathogens if size needs to be changed.

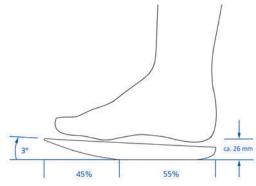


The Model Uranus can be worn on right or left side. To avoid a pelvic obliquity, use the balance shoe model Sirius.





Outsole with sole spots





Foot pressure measurement: left balance shoe, right Uranus

# 

# **Accessories Uranus**



Cube cushion sole, symmetrical shape, made of 10 mm soft foam, velour lamination

Shoe size	Item-No.
35 – 36	204R12/36
37 – 38	204R12/38
39 – 40	204R12/40
41 – 42	204R12/42
43 – 44	204R12/44
45 – 46	204R12/46
47 – 48	204R12/48
49 – 50	204R12/50





## Pluto S

Partial Foot Decompression Shoe (Post-Surgical Shoe) with cube cushion sole

#### Mode of Action

- main feature of the the Post-Surgical Shoe is a rigid, slightly ascending outsole towards the front (negative heel)
- pressure relief and pressure distribution during the gait cycle
- benefits the healing process of wounds in the forefoot area
- Hook- and loop fasteners at the wide flap prevent slipping within the shoe
- the front flap prevents lateralisation of the forefoot; the patient does not slip
  to the outer side and therefore gains an increased safety feeling (if it is not
  needed, the front flap can be cut off)
- Cube cushion sole for selective pressure relief
- the flap can be opened widely and together with the individually adjustable hook- and loop fasteners, it provides sufficient space for bandaged feet
- improved slip protection by integrated anti-slip nubs
- inner lining fabric of the shoe as well as cover fabric of the padded insole are anti-bacterially equipped based on ammonium-silane-compound; this limits colonisation of the material with certain bacterial strains (e.g. Staphylokokkus aureus, Klebsiella pneumoniae)



- Wounds in the foot- and ankle area caused by diabetes mellitus
- peripheral artery occlusive disease (PAOD)
- other indication independent wound formation in the foot and ankle area
- postoperative and trauma
- Gait unsteadiness (vertigo, visual impairment)

#### Contraindication

- Do not use for the above indications if sufficient pressure relief cannot be achieved through the application.
- do not wear directly on injured, irritated or damaged skin (Protective bandage, sock)
- do not use for instable or fracture prone diabetic neuro-osteoarthropathic
- use only with walking supports
- weight limit: 120 kg

#### Special feature

In connection with wounds in the foot, and ankle area, pressure complaints or other disorders can often be noticed too late or not at all. We therefore recommend that you check your feet, their bandages and orthopaedic aids daily. In case of occurring disorders, specific questions, delays in wound healing or unauthorised discontinuation of therapy ("incompliance"), please consult your attending physician or your medical supply store.

Shoe size	Inner Shoe Length	Inner Shoe Width	Item-No.
35 – 36	approx. 238 mm	approx. 90 mm	216R1/36
37 – 38	approx. 251 mm	approx. 92.5 mm	216R1/38
39 – 40	approx. 264 mm	approx. 95 mm	216R1/40
41 – 42	approx. 277 mm	approx. 97.5 mm	216R1/42
43 – 44	approx. 290 mm	approx. 100 mm	216R1/44
45 – 46	approx. 303 mm	approx. 102.5 mm	216R1/46
47 – 48	approx. 316 mm	approx. 105 mm	216R1/48
49 – 50	approx. 330 mm	approx. 112.5 mm	216R1/50

Please put the supplied plastic bag over the patient's foot prior to the first fitting. This will avoid contamination of the shoe with pathogens if size needs to be changed.

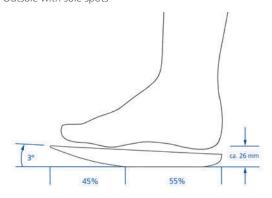


The Model Pluto S can be worn on right or left side. To avoid a pelvic obliquity, use the balance shoe model Sirius.





Outsole with sole spots





Foot pressure measurement: left balance shoe, right Pluto S

# 407 24 28 28 28

## Accessories Pluto S





Forefoot Protection Cap, hook-and-loop on the outside

Shoe size	Item-No.
35 – 36	216R12/36
37 – 38	216R12/38
39 – 40	216R12/40
41 – 42	216R12/42
43 – 44	216R12/44
45 – 46	216R12/46
47 – 48	216R12/48
49 – 50	216R12/50









216R12



## Sirius

Balance Shoe mit cube cushion sole

#### Mode of Action

- the balance shoe is intended to compensate for the imbalance between the foot fitted with a relief shoe and the healthy side, thus avoiding negative effects on the knee or hip joint and on the spine due to the pelvic obliquity
- Inner lining fabric of the shoe as well as cover fabric of the padded insole are anti-bacterially equipped based on ammonium-silane-compound; this limits colonisation of the material with certain bacterial strains (e.g. Staphylokokkus aureus, Klebsiella pneumoniae)
- improved slip protection by integrated anti-slip nubs

#### Indication

- Reduced mobility when walking and standing due to the difference in height when fitted with relief shoes
- to enable and maintain an appropriate walking function and to compensate for a pelvic obliquity that is worthy of treatment.

#### Contraindication

- do not wear directly on injured, irritated or damaged skin (Protective bandage, sock)
- do not use for unstable or fracture prone diabetic neuro-osteoarthropathic foot syndromes, DNOAP (e.g. florid Charcot foot).
- use only with walking supports
- · weight limit: 120 kg

#### Special feature

In connection with wounds in the foot, and ankle area, pressure complaints or other disorders can often be noticed too late or not at all. We therefore recommend that you check your feet, their bandages and orthopaedic aids daily. In case of occurring disorders, specific questions, delays in wound healing or unauthorised discontinuation of therapy ("incompliance"), please consult your attending physician or your medical supply store.



Please put the supplied plastic bag over the patient's foot prior to the first fitting. This will avoid contamination of the shoe with pathogens if size needs to be changed.

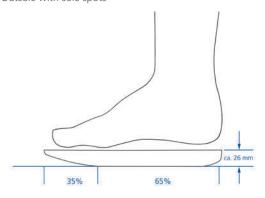


The Balance Shoe Sirius is only compatible with the relief shoe models Venus, Merkur, Merkur A, Jupiter, Saturn, Uranus and Pluto S from Streifeneder ortho.production GmbH.





Outsole with sole spots





Foot pressure measurement: left balance shoe Sirius, right Pluto S

# 

## **Accessories Sirius**



216R11





Cube cushion sole, symmetrical shape, made of 10 mm soft foam, velour lamination

Shoe size	Item-No.
35 – 36	216R11/36
37 – 38	216R11/38
39 – 40	216R11/40
41 – 42	216R11/42
43 – 44	216R11/44
45 – 46	216R11/46
47 – 48	216R11/48
49 – 50	216R11/50

Forefoot Protection Cap, hook-and-loop on the outside

· ·	·
Shoe size	Item-No.
35 – 36	216R12/36
37 – 38	216R12/38
39 – 40	216R12/40
41 – 42	216R12/42
43 – 44	216R12/44
45 – 46	216R12/46
47 – 48	216R12/48
49 – 50	216R12/50



## Apollo

Partial Foot Decompression Shoe with zero-heel technology (Post-Surgical Shoe)

#### Mode of Action

- the Post-Surgical Shoe follows the concept of zero heel technology with its pronounced roll-off sole and thus relieves the entire foot during the swing and stance phase
- benefits the healing process of wounds in the forefoot area
- the removable padded insole prevents pressure peaks in the foot sole area
- Inner lining fabric of the shoe as well as cover fabric of the padded insole are anti-bacterially equipped based on ammonium-silane-compound; this limits colonisation of the material with certain bacterial strains (e.g. Staphylokokkus aureus, Klebsiella pneumoniae)

#### Indication

 post-operative for healing of surgical interventions and injuries to the forefoot, e.g. hallux valgus surgery

## Contraindication

- Do not use for the above indications if sufficient pressure relief cannot be achieved through the application.
- do not wear directly on injured, irritated or damaged skin (Protective bandage, sock)
- do not use for unstable or fracture prone diabetic neuro-osteoarthropathic foot syndromes, DNOAP (e.g. florid Charcot foot).
- use only with walking supports
- weight limit: 120 kg

#### Special feature

In connection with wounds in the foot, and ankle area, pressure complaints or other disorders can often be noticed too late or not at all. We therefore recommend that you check your feet, their bandages and orthopaedic aids daily. In case of occurring disorders, specific questions, delays in wound healing or unauthorised discontinuation of therapy ("incompliance"), please consult your attending physician or your medical supply store.

Due to the shape of the roll-off sole, rapid mobilisation of the user is achieved. In the case of certain surgical procedures, such as the near-base conversion of the metatarsal, mobilisation must be discussed with the attending physician and, if necessary, a different therapeutic shoe model, e.g. Jupiter Item-No. 205R1, must be used.

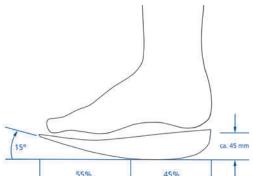
Shoe size	Inner Shoe Length	Inner Shoe Width	Item-No.
35 – 36	approx. 239 mm	approx. 82 mm	209R1/36
37 – 38	approx. 252 mm	approx. 85 mm	209R1/38
39 – 40	approx. 265 mm	approx. 88 mm	209R1/40
41 – 42	approx. 279 mm	approx. 91 mm	209R1/42
43 – 44	approx. 292 mm	approx. 94 mm	209R1/44
45 – 46	approx. 305 mm	approx. 97 mm	209R1/46
47 – 48	approx. 319 mm	approx. 100 mm	209R1/48
49 – 50	approx. 331 mm	approx. 103 mm	209R1/50

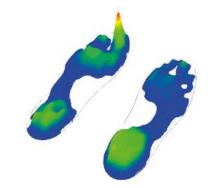
needs to be changed.

The Model Apollo can be worn on right or left side. Please do no

Please put the supplied plastic bag over the patient's foot prior to the first fitting. This will avoid contamination of the shoe with pathogens if size







Foot pressure measurement: left daytime shoe, right Apollo

The Model Apollo can be worn on right or left side. Please do not use as a pair.



## Accessories Apollo



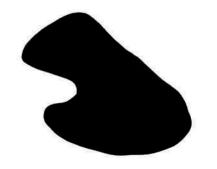


Forefoot Cap, hook-and-loop on the outside

Shoe size	Item-No.
35 – 36	209R12/36
37 – 38	209R12/38
39 – 40	209R12/40
41 – 42	209R12/42
43 – 44	209R12/44
45 – 46	209R12/46
47 – 48	209R12/48
49 – 50	209R12/50



209R11



209R12



#### Komet

Partial Foot Decompression Shoe in outdoor design and cube cushion sole

#### Mode of Action

- Pressure redistribution and relief in the forefoot area through a rigid (= stiff) roll-off sole
- benefits the healing process of wounds in the forefoot area
- Cube cushion sole for selective pressure relief
- reinforced heel area and straps in the forefoot area give the foot support
- adjustable hook- and loop fasteners on the flaps accommodate large-volume bandages
- wide angular sole shape in the forefoot area when using surgical techniques with Kirschner wire
- high slip resistance due to profiled outsole
- Inner lining fabric of the shoe as well as cover fabric of the padded insole are anti-bacterially equipped based on ammonium-silane-compound; this limits colonisation of the material with certain bacterial strains (e.g. Staphylokokkus aureus, Klebsiella pneumoniae)



- Wounds in the forefoot area caused by diabetes mellitus
- peripheral artery occlusive disease (PAOD)
- other indication independent wound formation in the foot and ankle area
- post-surgical for corrections and forefoot injuries



- Do not use for the above indications if sufficient pressure relief cannot be achieved through the application.
- do not wear directly on injured, irritated or damaged skin (Protective bandage, sock)
- do not use for unstable or fracture prone diabetic neuro-osteoarthropathic foot syndromes, DNOAP (e.g. florid Charcot foot).
- · use only with walking supports

#### Special feature

In connection with wounds in the foot, and ankle area, pressure complaints or other disorders can often be noticed too late or not at all. We therefore recommend that you check your feet, their bandages and orthopaedic aids daily. In case of occurring disorders, specific questions, delays in wound healing or unauthorised discontinuation of therapy ("incompliance"), please consult your attending physician or your medical supply store.



Please put the supplied plastic bag over the patient's foot prior to the first fitting. This will avoid contamination of the shoe with pathogens if size needs to be changed.

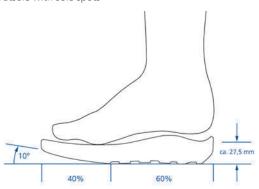


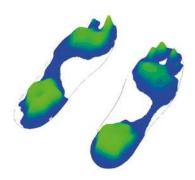
The Komet model can be worn on the right and left side! The cube cushion sole thickness is approx. 10 mm. The effective heel height is approx. 10 mm for all sizes.





Outsole with sole spots





Foot pressure measurement: left daytime shoe, right Komet

# 

# Accessories Komet







217R12

Cube cushion sole, symmetrical shape, made of 10 mm soft foam, velour

Shoe size	Item-No.
35 – 36	217R11/36
37 – 38	217R11/38
39 – 40	217R11/40
41 – 42	217R11/42
43 – 44	217R11/44
45 – 46	217R11/46
47 – 48	217R11/48
49 – 50	217R11/50

Forefoot Protection Cap, hook-and-loop on the outside

Shoe size	Item-No.
35 – 36	217R12/36
37 – 38	217R12/38
39 – 40	217R12/40
41 – 42	217R12/42
43 – 44	217R12/44
45 – 46	217R12/46
47 – 48	217R12/48
49 – 50	217R12/50



#### Luna

Longterm Surgical Shoe with cube cushion sole and reinforced outsole

- the sandal-like, wide surgical shoe with raised toe edge is designed to accommodate large-volume dressings and protect them against slipping
- · Cube cushion sole for selective pressure relief
- the stiffened outsole additionally relieves the injured foot
- the higher socket and the sturdily reinforced heel area provide a secure hold for the foot
- improved slip protection by integrated anti-slip nubs
- Inner lining fabric of the shoe as well as cover fabric of the padded insole are anti-bacterially equipped based on ammonium-silane-compound; this limits colonisation of the material with certain bacterial strains (e.g. Staphylokokkus aureus, Klebsiella pneumoniae)

#### Indication

- · Wounds in the foot- and ankle area caused by diabetes mellitus
- peripheral artery occlusive disease (PAOD)
- other indication independent wound formation in the foot and ankle area
- postoperative and trauma



- Do not use for the above indications if sufficient pressure relief cannot be achieved through the application.
- · do not wear directly on injured, irritated or damaged skin (Protective
- do not use for unstable or fracture prone diabetic neuro-osteoarthropathic foot syndromes, DNOAP (e.g. florid Charcot foot).
- use only with walking supports

#### Special feature

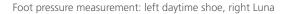
In connection with wounds in the foot, and ankle area, pressure complaints or other disorders can often be noticed too late or not at all. We therefore recommend that you check your feet, their bandages and orthopaedic aids daily. In case of occurring disorders, specific questions, delays in wound healing or unauthorised discontinuation of therapy ("incompliance"), please consult your attending physician or your medical supply store.

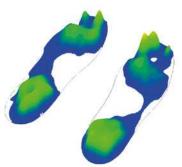


will avoid contamination of the shoe with pathogens if size needs to be The removable cube cushion soles can be individually adjusted depending on the indication.

Order example: 210R1/36 + L (left side) or R (right side). Please put the supplied plastic bag over the patient's foot prior to the first fitting. This







Outsole with sole spots

49 - 50 approx. 331 mm approx. 120 mm 210R1/50...

# 

## Accessories Luna



Cube cushion sole, asymmetrical shape, made of 10 mm soft foam, with velour lamination



Shoe size	side	Item-No.
35 – 36	right	210R13/36R
37 – 38	right	210R13/38R
39 – 40	right	210R13/40R
41 – 42	right	210R13/42R
43 – 44	right	210R13/44R
45 – 46	right	210R13/46R
47 – 48	right	210R13/48R
49 – 50	right	210R13/50R
35 – 36	left	210R13/36L
37 – 38	left	210R13/38L
39 – 40	left	210R13/40L
41 – 42	left	210R13/42L
43 – 44	left	210R13/44L
45 – 46	left	210R13/46L
47 – 48	left	210R13/48L
49 – 50	left	210R13/50L



Forefoot Protection Cap, hook-and-loop on the outside

Shoe size	side	Item-No.
35 – 36	right	210R12/36R
37 – 38	right	210R12/38R
39 – 40	right	210R12/40R
41 – 42	right	210R12/42R
43 – 44	right	210R12/44R
45 – 46	right	210R12/46R
47 – 48	right	210R12/48R
49 – 50	right	210R12/50R
35 – 36	left	210R12/36L
37 – 38	left	210R12/38L
39 – 40	left	210R12/40L
41 – 42	left	210R12/42L
43 – 44	left	210R12/44L
45 – 46	left	210R12/46L
47 – 48	left	210R12/48L
49 – 50	left	210R12/50L

210R12



## Neptun

Longterm Surgical Shoe

#### Mode of Action

- the surgical shoe should accommodate existing, large-volume dressings and bandages and protect them from slipping and, in particular, protect the foot from cold and wetness (splash water).
- the post-surgical shoe encompasses the entire foot and ankle area with a softly padded socket
- Hook- and loop fasteners at the wide flap prevent slipping within the shoe
- the removable padded insole prevents pressure peaks in the foot sole area
- the flap can be opened widely and together with the individually adjustable hook- and loop fasteners, it provides sufficient space for bandaged feet
- Inner lining fabric of the shoe as well as cover fabric of the padded insole are anti-bacterially equipped based on ammonium-silane-compound; this limits colonisation of the material with certain bacterial strains (e.g. Staphylokokkus aureus, Klebsiella pneumoniae)



- Wounds in the foot- and ankle area caused by diabetes mellitus
- peripheral artery occlusive disease (PAOD)
- other indication independent wound formation in the foot and ankle area
- · postoperative and trauma

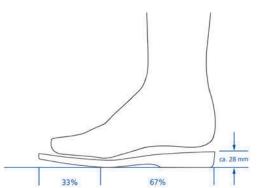


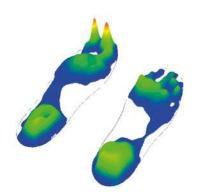
- Do not use for the above indications if sufficient pressure relief cannot be achieved through the application.
- do not wear directly on injured, irritated or damaged skin (Protective bandage, sock)
- · use only with walking supports

#### Special feature

In connection with wounds in the foot, and ankle area, pressure complaints or other disorders can often be noticed too late or not at all. We therefore recommend that you check your feet, their bandages and orthopaedic aids daily. In case of occurring disorders, specific questions, delays in wound healing or unauthorised discontinuation of therapy ("incompliance"), please consult your attending physician or your medical supply store.







Foot pressure measurement: left daytime shoe, right Neptun

Shoe size	Inner Shoe Length	Inner Shoe Width	Item-No.
36	approx. 243 mm	approx. 93 mm	214R1/36
37	approx. 249 mm	approx. 94.5 mm	214R1/37
38	approx. 256 mm	approx. 96 mm	214R1/38
39	approx. 263 mm	approx. 97.5 mm	214R1/39
40	approx. 269 mm	approx. 99 mm	214R1/40
41	approx. 276 mm	approx. 100.5 mm	214R1/41
42	approx. 283 mm	approx. 102 mm	214R1/42
43	approx. 290 mm	approx. 103.5 mm	214R1/43
44	approx. 296 mm	approx. 105 mm	214R1/44
45	approx. 303 mm	approx. 106.5 mm	214R1/45
46	approx. 309 mm	approx. 108 mm	214R1/46
47	approx. 315 mm	approx. 109.5 mm	214R1/47
48	approx. 322 mm	approx. 111 mm	214R1/48
49	approx. 327 mm	approx. 113 mm	214R1/49
50	approx. 333 mm	approx. 114 mm	214R1/50

Order example: 214R1/36 + L (left side) or R (right side). Please put the supplied plastic bag over the patient's foot prior to the first fitting. This will avoid contamination of the shoe with pathogens if size needs to be changed.



# **Accessories Neptun**





214R12

lammation		
Shoe size	side	Item-No.
36	right	214R12/36R
37	right	214R12/37R
38	right	214R12/38R
39	right	214R12/39R
40	right	214R12/40R
41	right	214R12/41R
42	right	214R12/42R
43	right	214R12/43R
44	right	214R12/44R
45	right	214R12/45R
46	right	214R12/46R
47	right	214R12/47R
48	right	214R12/48R
49	right	214R12/49R
50	right	214R12/50R
36	left	214R12/36L
37	left	214R12/37L
38	left	214R12/38L
39	left	214R12/39L
40	left	214R12/40L
41	left	214R12/41L
42	left	214R12/42L
43	left	214R12/43L
44	left	214R12/44L
45	left	214R12/45L
46	left	214R12/46L
47	left	214R12/47L
48	left	214R12/48L
49	left	214R12/49L
50	left	214R12/50L



## Neptun B

Longterm Surgical Shoe with wide outsole and especially high volume

- the surgical shoe should accommodate existing, large-volume dressings and bandages and protect them from slipping and, in particular, protect the foot from cold and wetness (splash water).
- the post-surgical shoe encompasses the entire foot and ankle area with a softly padded socket
- Hook- and loop fasteners at the wide flap prevent slipping within the shoe
- the removable padded insole prevents pressure peaks in the foot sole area
- a particularly wide outsole, wide opening options in the flap and heel area provide a generous volume of space for bandaged feet
- the high shaft offers sufficient support
- improved slip protection by integrated anti-slip nubs
- the stiffened outsole additionally relieves the injured foot
- Inner lining fabric of the shoe as well as cover fabric of the padded insole are anti-bacterially equipped based on ammonium-silane-compound; this limits colonisation of the material with certain bacterial strains (e.g. Staphylokokkus aureus, Klebsiella pneumoniae)



Outsole with sole spots

# 67%

#### Indication

- Wounds in the foot- and ankle area caused by diabetes mellitus
- peripheral artery occlusive disease (PAOD)
- other indication independent wound formation in the foot and ankle area
- postoperative and trauma
- Rehabilitation of lymphoedema, venous leg ulcer, elephantiasis, obesity

#### Contraindication

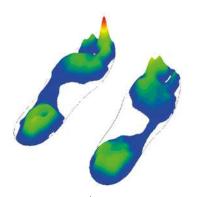
- Do not use for the above indications if sufficient pressure relief cannot be achieved through the application.
- do not wear directly on injured, irritated or damaged skin (Protective bandage, sock)
- use only with walking supports

#### Special feature

In connection with wounds in the foot, and ankle area, pressure complaints or other disorders can often be noticed too late or not at all. We therefore recommend that you check your feet, their bandages and orthopaedic aids daily. In case of occurring disorders, specific questions, delays in wound healing or unauthorised discontinuation of therapy ("incompliance"), please consult your attending physician or your medical supply store.

Shoe size	Inner Shoe Length	Inner Shoe Width	Item-No.
35 – 36	approx. 239 mm	approx. 99 mm	215R1/36
37 – 38	approx. 252 mm	approx. 102 mm	215R1/38
39 – 40	approx. 265 mm	approx. 105 mm	215R1/40
41 – 42	approx. 279 mm	approx. 108 mm	215R1/42
43 – 44	approx. 292 mm	approx. 111 mm	215R1/44
45 – 46	approx. 305 mm	approx. 114 mm	215R1/46
47 – 48	approx. 319 mm	approx. 117 mm	215R1/48
49 – 50	approx. 331 mm	approx. 120 mm	215R1/50

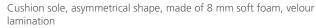
Order example: 215R1/36 + L (left side) or R (right side). Please put the supplied plastic bag over the patient's foot prior to the first fitting. This will avoid contamination of the shoe with pathogens if size needs to be changed.



Foot pressure measurement: left daytime shoe, right Neptun B

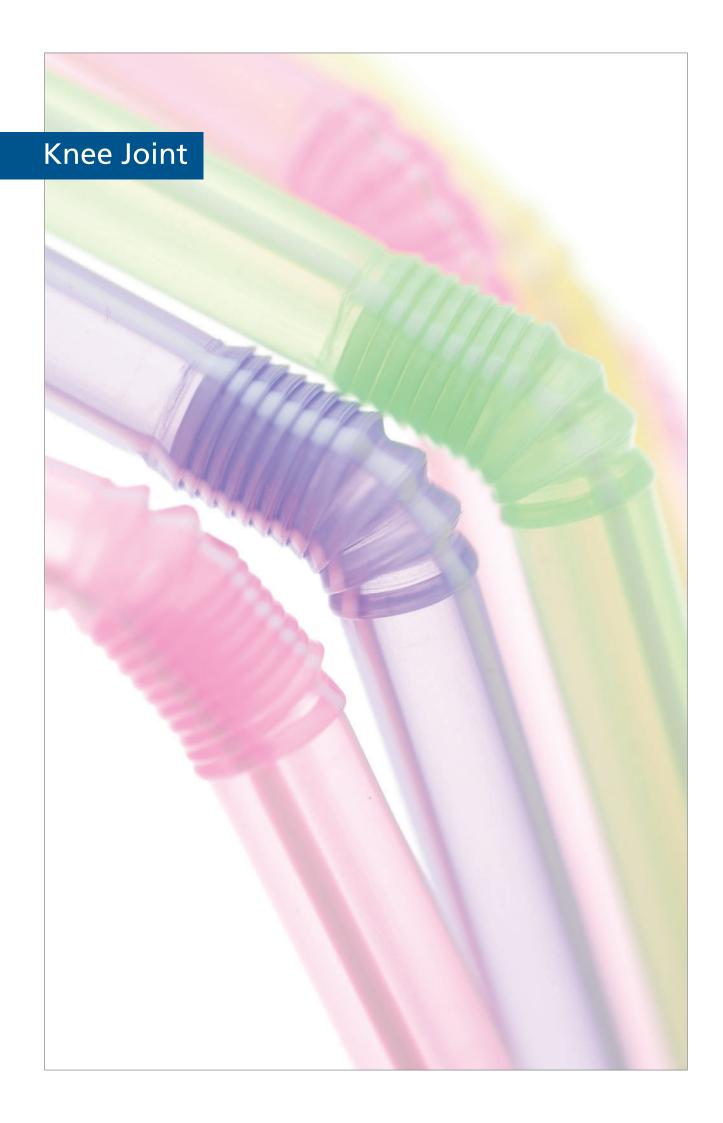


# Accessories Neptun B





Shoe size	side	Item-No.
35 – 36	right	212R11/36R
37 – 38	right	212R11/38R
39 – 40	right	212R11/40R
41 – 42	right	212R11/42R
43 – 44	right	212R11/44R
45 – 46	right	212R11/46R
47 – 48	right	212R11/48R
49 – 50	right	212R11/50R
35 – 36	left	212R11/36L
37 – 38	left	212R11/38L
39 – 40	left	212R11/40L
41 – 42	left	212R11/42L
43 – 44	left	212R11/44L
45 – 46	left	212R11/46L
47 – 48	left	212R11/48L
49 – 50	left	212R11/50L



# Knee Joint

The knee is our body's largest joint. It consists of the distal (away from the trunk) ending of the upper thigh bone and the proximal (close to the trunk) ending of the lower thigh bone. Contrary to other joints, these two bone endings do not directly link together. In order to increase the contact surface, to level out the uneven joint surfaces and to convert the enormous motion range of the knee joint, an intermediate layer is necessary – the menisci. These are c-shaped or round cartilage discs of fibroid structure. The knee joint is supported solely by ligaments. The most important ligaments are the intra-articluar ligament, the lateral collateral ligament and the anterior and posterior cruciate ligament.

A speciality of the knee joint is the knee cap (patella). Located in the front of the joint, it slides in a guiding groove along the upper thigh bone during flexion and extension. It provides guidance for the quadriceps tendon, which is responsible for the extension of the knee joint. Depending on the activity, the pressure of the patella on the knee joint can reach far more than the twentyfold of the own body weight.

The knee joint has a very big motion range – it can be overextended by approximately 10° and during flexion, it reaches an angle of approximately 150°. In flexion, the joint is also able to perform rotary movements, during which the rotation to the outside of 40° is considerably bigger than the rotation to the inside of 10°.



The greatest load on the knee joint develops during the 90°-flexion, as the lever is in its longest position.



The knee joint is the most strained joint of our body. With every step, it must absorb approximately three times the amount of our own body weight. Even during light activity, this figure increases remarkably. Considering that each human being walks approximately fivethousand steps per day, in the course of a lifetime this adds up to a distance of approximately three times around the world. Or, relating to the absorbed weight, several millions of tons. This explains why the kee joint is subject to an increased wearout and furthermore, irritations, overstraining and injuries are very common.

In Germany, annually approximately 300.000 meniscus surgeries as well as approximately 100.000 cruciate ligament surgeries are performed annually. In x-rays, already every second German citizen older than 35 years shows provable signs of arthrosis.

Considering mechanical aspects, the knee is a hinge-sliding-joint. Consequently, it does not have a fixed centre of rotation, around which the joint is moving. When treating the knee with an orthosis, this is of high importance. As knee-orthoses have a fixed centre of rotation, it is especially important that the orthosis provides enough flexibility to follow the anatomical centre of rotation as good as possible.

# Injuries and Deformities of the Knee Joint

## Typical diseases, injuries and deformities of the knee joint and their treatment

## Knock-knees (genu valgum) resp. bowlegs (genu varum)

With knock-knees, the lateral joint parts are overloaded, whereas with bowlegs, the medial joint parts are overloaded. During childhood, these leg deformities can be treated with long-term effect by use of orthopaedic insoles. Sometimes, more extensive manifestation requires the treatment with orthotic braces worn at night. Deformities during adulthood are treated with leg orthoses, to help preventing possible joint pain.

## Overextension of the knee joint (genu recurvatum)

The knee joint may be overextended by more than the usual  $5^{\circ} - 10^{\circ}$ . This causes an overstrain on the joint capsule as well as on the ligaments of the knee joint, which leads to increasing worsening of this deformity. For lighter cases, often a knee support with lateral reinforcement or a knee brace with extension lock are sufficient.

## Surgery

After surgery, it is often necessary to completely immobilise the knee joint for a few days. Depending on the kind of surgery, the joint must be fixed with a knee brace in 0° extension, or in 20° flexion.

## Inflammatory conditions

Inflammatory conditions, joint effusions and swellings, cartilage- and meniscus damages, arthrosis and arthritis, light deformities, postsurgical or traumatic irritations, bursitis or general light knee joint instabilities are advised to be treated with a compression-knee brace with lateral reinforcement and patella ring made of silicone.

Depending on the diagnosis, shoe insoles with lateral adjustments, softfoam insoles or shock absorbing silicone insoles as well as silicone heel-cushions can additionally relieve the knee joint.



## GenuSupport

Hard Frame Knee Orthosis with 4-point principle for knee joint support and stabilisation with extension- and flexion restriction

#### Mode of Action

- hard frame knee orthosis with 4-point principle for knee joint control and stabilisation with extension-/flexion restriction at 0°, 10°, 20°, 30° and 45° (extension) 0°, 10°, 20°, 30°, 45°, 60°, 75°, 90° and 120° flexion)
- complete immobilisation adjustable at 0°, 10°, 20°, 30° and 45°

#### Indication

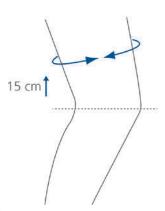
- anterior/posterior cruciate ligament ruptures (CI) with injuries of collateral and meniscal ligaments (e.g. "unhappy triad")
- isolated ruptures of cruciate ligaments
- lateral ligament ruptures and lesions
- post-operative therapy after reconstructional anterior cruciate ligament surgery
- conservative treatment and immobilisation of knee joint instabilities

#### Contraindication

- material interactions/allergies
- do not wear directly on injured, irritated or damaged skin

#### Feature

- weight-optimised metal frame
- new aluminum-magnesium alloy
- extra high proximal lateral support
- easy manual finishing
- stable, interlocking double joint with sliding discs
- requires only one tool (2,5 mm allen key)
- new padding material with anti-slip effect
- split tibia-paddings
- various lateral knee joint paddings





Size	side	Thigh cir- cumference	Colour	Item-No.
S	left	39 – 46 cm	titanium grey metallic / black	55R1/LS
М	left	46 – 53 cm	titanium grey metallic / black	55R1/LM
L	left	53 – 60 cm	titanium grey metallic / black	55R1/LL
XL	left	60 – 67 cm	titanium grey metallic / black	55R1/LXL
XXL	left	67 – 74 cm	titanium grey metallic / black	55R1/LXXL
S	right	39 – 46 cm	titanium grey metallic / black	55R1/RS
М	right	46 – 53 cm	titanium grey metallic / black	55R1/RM
L	right	53 – 60 cm	titanium grey metallic / black	55R1/RL
XL	right	60 – 67 cm	titanium grey metallic / black	55R1/RXL
XXL	right	67 – 74 cm	titanium grey metallic / black	55R1/RXXL

Outer orthosis length: approx. 43 cm



The GenuSupport is adjustable from the outside and does not require doffing during exchange of the wedges for motion restriction.



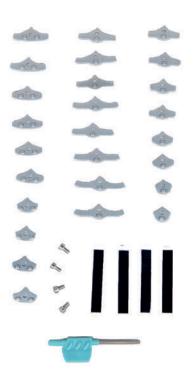
# Accessories GenuSupport



55R10



55R11



Replacement padding set for frame and straps, 10 pcs.

Size	side	Colour	Item-No.
S	left	black	55R10/LS
M	left	black	55R10/LM
L	left	black	55R10/LL
XL	left	black	55R10/LXL
XXL	left	black	55R10/LXXL
S	right	black	55R10/RS
М	right	black	55R10/RM
L	right	black	55R10/RL
XL	right	black	55R10/RXL
XXL	right	black	55R10/RXXL

Replacement knee padding set, 6 pcs.

Size	Colour	Item-No.
One size	black	55R11

Spare parts set

Description	Item-No.
Set consisting of: 26 x wedges, 4 x hook- and loop straps for fixating the pads, 1 x allen key 2.5 mm, 4 x adjustment screws	55R12

55R12



# GenuSupport.frontal

Hard Frame Knee Orthosis with 4-point principle for knee joint support and stabilisation with extension- and flexion restriction, frontal donning

### Mode of Action

- hard frame knee orthosis with 4-point principle for knee joint control and stabilisation with extension-/flexion restriction at 0°, 10°, 20°, 30° and 45° (extension) 0°, 10°, 20°, 30°, 45°, 60°, 75°, 90° and 120° (flexion)
- complete immobilisation adjustable at 0°, 10°, 20°, 30° and 45°
- easier donning of the knee orthosis for bed-ridden patients

### Indication

- anterior/posterior cruciate ligament ruptures (CI) with injuries of collateral and meniscal ligaments (e.g. "unhappy triad")
- isolated ruptures of cruciate ligaments
- lateral ligament ruptures and lesions
- post-operative therapy after reconstructional anterior cruciate ligament surgery
- conservative treatment and immobilisation of knee joint instabilities

### Contraindication

- material interactions/allergies
- do not wear directly on injured, irritated or damaged skin

### Featur

- easy application of the knee orthosis to bedridden patients
- weight-optimised metal frame
- new aluminum-magnesium alloy
- extra high proximal lateral support
- · easy manual finishing
- stable, interlocking double joint with sliding discs
- requires only one tool (2,5 mm allen key)
- new padding material with anti-slip effect
- · split tibia-paddings
- various lateral knee joint paddings

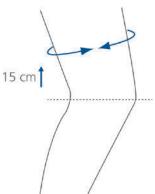






The GenuSupport.frontal is adjustable from the outside and does not require doffing during exchange of the wedges for motion restriction.







73



# Accessories GenuSupport.frontal



Replacement padding set for frame and straps, 10 pcs.

Size	side	Colour	Item-No.
S	left	black	56R10/LS
M	left	black	56R10/LM
L	left	black	56R10/LL
XL	left	black	56R10/LXL
XXL	left	black	56R10/LXXL
S	right	black	56R10/RS
М	right	black	56R10/RM
L	right	black	56R10/RL
XL	right	black	56R10/RXL
XXL	right	black	56R10/RXXL

56R10



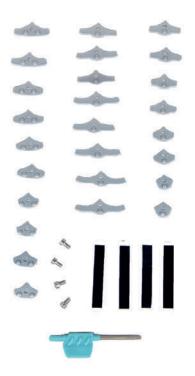
Replacement knee padding set, 6 pcs.

Size	Colour	Item-No.
One size	black	55R11

Spare parts set

Description	Item-No.
Set consisting of: 26 x wedges, 4 x hook- and loop straps for fixating the pads, 1 x allen key 2.5 mm, 4 x adjustment screws	55R12

55R11



55R12



# Knee Brace, straight

Knee Orthosis for immobilisation

### Mode of Action

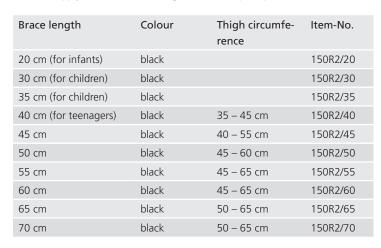
- the threepart knee brace stabilises the leg in extended position and helps to relief pain (e.g. first aid treatment after knee injury); also helps to secure surgery results and to speed up the healing process
- mostly used for post-operative care after surgery

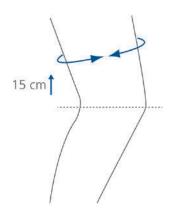
### Indication

- first aid treatment after knee injuries for immobilisation
- the brace is indicated after surgery
- instability of the knee joint

## Contraindication

- material interactions/allergies
- do not wear directly on injured, irritated or damaged skin
- venous insufficiency with thrombophilia
- lymph drain malfunctions (swellings distal from the applied support)
- the brace is not able to correct femur-, tibia- or fibula fractures
- do not apply the brace on missing or disturbed perception







Knee brace can be worn on the left or right side. Suitable for nearly all leg circumferences by means of adjustable hook- and loop fasteners.

For individual customisation, addition fabric is available by the metre, item-no. 49T8.



# Knee Brace, 20° flexion

Knee Orthosis for immobilisation

### Mode of Action

- the threepart knee brace stabilises the leg in functional position and helps to relief pain (e. g. first aid treatment after knee injury); also helps to secure surgery results and to speed up the healing process
- by means of several hook- and loop fasteners, the knee joint is fixed into
- mostly used for post-operative care after surgery

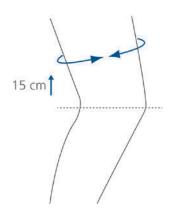
### Indication

- first aid treatment after knee injuries for immobilisation
- the brace is indicated after surgery
- instability of the knee joint

### Contraindication

- material interactions/allergies
- do not wear directly on injured, irritated or damaged skinvenous insufficiency with thrombophilia
- lymph drain malfunctions (swellings distal from the applied support)
- the brace is not able to correct femur-, tibia- or fibula fractures
- do not apply the brace on missing or disturbed perception

Brace length	Colour	Thigh circumfe- rence	Item-No.
40 cm (for teenagers)	black	35 – 45 cm	150R1/40
50 cm	black	45 – 60 cm	150R1/50
55 cm	black	45 – 65 cm	150R1/55
60 cm	black	45 – 65 cm	150R1/60
65 cm	black	50 – 65 cm	150R1/65
70 cm	black	50 – 65 cm	150R1/70





Knee brace can be worn on the left or right side. Suitable for nearly all leg circumferences by means of adjustable hook- and loop fasteners.

For individual customisation, addition fabric is available by the metre, item-no. 49T8.



# Knieschiene, 20° gebeugt

Knee Orthosis for immobilisation





- by means of several hook- and loop fasteners, the knee joint is fixed into position
- mostly used for post-operative care after surgery

### Indication

- first aid treatment after knee injuries for immobilisation
- postsurgical
- instability of the knee joint

### Contraindication

- material interactions/allergies
- do not wear directly on injured, irritated or damaged skin
- venous insufficiency with thrombophilia
- lymph drain malfunctions (swellings distal from the applied support)
- the brace is not able to correct femur-, tibia- or fibula fractures
- do not apply the brace on missing or disturbed perception

### Positionsnummer 23.04.01.1033

Schienenlänge	Farbe	Bestell-Nr.
40 cm (für Kinder)	silbergrau	160R1/40
50 cm	silbergrau	160R1/50
55 cm	silbergrau	160R1/55
60 cm	silbergrau	160R1/60
65 cm	silbergrau	160R1/65







# Knee Brace, straight

### Mode of Action

- the three-part knee brace stabilises the leg in extended position and helps to relief pain (e.g. first aid treatment after knee injury); also helps to secure surgery results and to speed up the healing process
- mostly used for post-operative care after surgery

### Indication

- first aid treatment after knee injuries for immobilisation
- postsurgical
- instability of the knee joint

## Contraindication

- Material interactions/allergies
- do not wear directly on injured, irritated or damaged skin
- venous insufficiency with thrombophilia
- Lymphatic drainage disorders (swellings distal to the applied device)
- the brace is not able to correct femur-, tibia- or fibula fractures
- do not apply the brace on missing or disturbed perception

# Positionsnummer 23.04.01.0046

Brace length	Colour	Item-No.
20 cm (for infants)	silver	160R2/20
30 cm (for children)	silver	160R2/30
40 cm (for children)	silver	160R2/40
45 cm	silver	160R2/45
50 cm	silver	160R2/50
55 cm	silver	160R2/55
60 cm	silver	160R2/60
65 cm	silver	160R2/65

# Spare hook-and-loop strips

for Knee brace 160R1 and 160R2

Length	Colour	Item-No.
150 cm	black	160R10

without picture

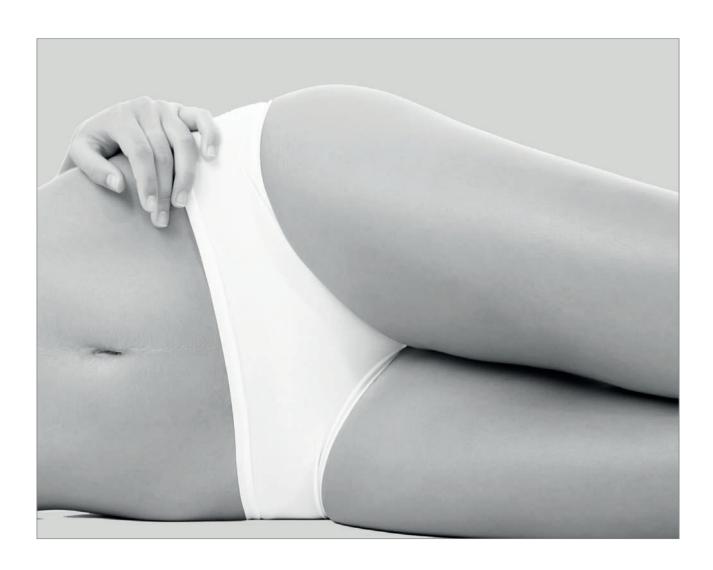


# Pelvis & Hip Joint

The pelvis (pelvis major, pelvis minor) generally describes the body section between stomach and legs. The pelvis is a very stable, solid construction and outlines a closed, but not completely stiff bone ring. By means of the sacral bone, this bone ring is connected to the spine, and the pelvis surrounds the pelvic floor like a frame. The bony pelvis consists of both hip bones (ossa coxae), and together with the sacral bone (os sacrum), it forms the pelvic girdle. Due to its strength and stability, the pelvic girdle provides to the human body steadiness and an upright position.

Each of both hip bones consists of three bony parts: the ilium bone (os ilium), the seat bone (os ischii) and the pubic bone (os pubis). These three bones merge after reaching adolescence age, and then build the uniform hip bone in the hip joint socket (acetabular cup).

Looking at the shape of the pelvis, distinct gender gaps are noticeable. While the male pelvis is rather high and narrow, the female pelvis tends to be low and rather wider.

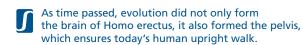


The hip joint (articulatio coxae) is a spheroidal joint and can be moved three-dimensionally. The upper thigh bone (femur) and the pelvis herein consitute the bony joint-duo.

The hip joint's three main directions of motion are

- Flexing extending (flexion extension)
- Spreading tightening (abduction adduction)
- Rotating outside inside (outer inner rotation) In order to provide frictionless motion at the contact surfaces of the hip joint, the joint parts of the femur head and the joint socket are covered with a very smooth and thick cartilage layer. The joint mucous membrane constantly produces joint fluid (synovia), which lubricates the joint, protects it from shocks as well as nourishes it at the same time.

Next to the numerous hip- and thigh muscles, an enormous ligament construction holds the femoral head (caput femoris) in the hip socket (acetabulum). The most important and strongest ligament of the human body is the Os ilium thigh ligament (ligamentum iliofemorale), which has a tensile strength of approx. 350 kg.



# Hip Disorders

# Hip dysplasia and hip dislocation (luxation)

# Condition description

Hip dysplasia is an infantile maturing disorder with growth disturbance of the acetabulum roof. Without early therapy or use of proper orthopaedic aids, the femoral head can move out of the acetabulum (dislocation) and develop to a hip luxation.

Hip disorders are caused by the human upright position. While walking on two legs, the rear upper parts of the hip joint (acetabulum roof), are under increased strain. Due to the genderspecific differences in the shape of the pelvis, girls suffer from hip disorders 4 times more often than boys.

# Therapy

Depending on the degree of the dysplasia, subluxation or luxation, there are different therapy methods. Conservative measures should be exploited before considering an extensive surgery. Therefore, the treatment should start as early as possible with a hip abduction support (harness) therapy. The prior therapy principles are to reduce load on the hip joint and a rather gentle, functional treatment by keeping the child in a sitting - squatting position.

# Therapy aim

- To bring the femoral head into straight position in the acetabulum.
- To take tension off the capsule vessels.
- To allow the acetabulum roof to post-mature.

# Hip joint arthrosis

# Condition description

The most common hip disorder among adults resp. older persons is the hip joint arthrosis.

Depending on age, the cartilage layer of the hip joint degenerates. Without the protecting cartilage layer, the hip joint looses its flexibility and in the course of time, deforms under the load of the own body weight. Next to pain therapy, further conservative treatments are applied to relief the pain caused by the arthrosis.

### Therapy

The pain in the hip joint can be relieved by wearing soft, shock-absorbing shoes and insoles and specific exercise to strengthen the muscles, e. g. swimming or riding a bicycle.

Unfortunately, the degenerous effects cannot be healed. Existing severe hip joint arthrosis most likely will require replacement by an artificial joint. Among others, nowadays there are minimally invasive surgery methods, during which a hip endoprosthesis (H-TEP) is implanted. Depending on surgery method, the use of result-maintaining orthopaedic aids is recommended.

# Pelvis & Hip Joint



# Pavlik-Harness

Hip Abduction Support

# Mode of Action

- gentle, painless and functional care for infants and young children
- the pavlik-harness leads to flexed and abducted position of the legs, and therefore to a centred adjustment of the femoral head and this reduces the pressure to the cartilaginous acetabular cup
- if used regularly, it helps the infantile acetabular cup to post-mature

# Indication

- hip luxationhip dysplasia

- material interactions/allergiesdo not wear directly on injured, irritated or damaged skin

Size	Colour	Age	Item-No.
0	white	1. – 5. month	130T20/0
1	white	5. – 10. month	130T20/1
2	white	10. – 15. month	130T20/2
3	white	from 15 months	130T20/3









# iDeal Hip Abduction Support

Hip Abduction Support

## Mode of Action

- due to the flexed abduction position, the iDeal hip abduction support leads to a centered adjustment of the femoral head and pressure reduction onto the cartelagious acetabular cup of the hip joint
- an over-extensive abduction is prevented by the integrated flexion-holding wedges
- the soft design enables the infant to move (up to age of 3 months)

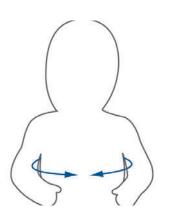
## Indication

- hip dysplasia
- hip luxation

- material interactions/allergies
- do not wear directly on injured, irritated or damaged skin

Size	Chest circumference	Item-No.
0	38 – 45 cm	130T26/0
1	45 – 52 cm	130T26/1
2	52 – 58 cm	130T26/2
3	55 – 62 cm	130T26/3







# Hip Abduction Support "Listra"

Hip Abduction Support

## Mode of Action

- leads to actively abducted leg position by body's own muscle power
- gentle centering of the femoral head reduces the pressure onto the cartilageous acetabular cup of the hip joint
- great freedom of movement in abducted treatment position
- no dangerous tissue tension of the soft tissues of the hip

### Indication

• mild hip dysplasia

- material interactions/allergies
- do not wear directly on injured, irritated or damaged skin





picture similar

# Pelvis & Hip Joint



# Active-Hip Abduction Support, without flexion holding wedges

Active-Hip Abduction Support Shell





- leads to actively abducted leg position by body's own muscle power
- great motion range in abducted therapy position due to the conical shape of the abduction shell
- absolutely no risky tissue tension in the soft tissue of the hip

## Indication

• hip dysplasia

- material interactions/allergies
- do not wear directly on injured, irritated or damaged skin

Size	Spreading width	Item-No.
12	12 cm	130T8/12
14	14 cm	130T8/14
16	16 cm	130T8/16
18	18 cm	130T8/18
20	20 cm	130T8/20
22	22 cm	130T8/22
24	24 cm	130T8/24
26	26 cm	130T8/26
28	28 cm	130T8/28





# Active-Hip Abduction Support, with flexion holding wedges

Active-Hip Abduction Support Shell







- great motion range in abducted therapy position due to the conical shape of the abduction shell
- absolutely no risky tissue tension in the soft tissue of the hip
- provides optimal adjustment of the hip to the acetabulum by flexion holding wedges

## Indication

• hip dysplasia

- material interactions/allergies
- do not wear directly on injured, irritated or damaged skin

Size	Spreading width	Item-No.
12	12 cm	130T28/12
14	14 cm	130T28/14
16	16 cm	130T28/16
18	18 cm	130T28/18
20	20 cm	130T28/20
22	22 cm	130T28/22
24	24 cm	130T28/24
26	26 cm	130T28/26
28	28 cm	130T28/28





# Yale - Hip Brace

Hip Brace with rotation inhibiting stabilisation element, inclusive lining

### Mode of Action

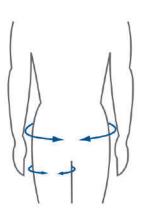
- due to the spiral shaped structure of the "stabilisator" (thermoplastically mouldable), a centering force effects the hip joint, which holds the joint head inside the acetabulum
- the principle corresponds to the stabilisation of fixating "hip-leg-dressing" used in orthopaedics and trauma surgery
- at the same time, the dynamic muscle stabilisation of the hip joint is not prevented and the remaining motion range guarantees a smooth and lively gait pattern
- flexion of the hip joint limited to approx. 80°
- abduction limited to approx. 20°
- concentrated reduction of the rotational level

### Indication

 partial immobilisation of the hip joint, for special post-surgical care of minimally invasive total endoprosthesis implant of the hip (hip-TEP)

### Contraindication

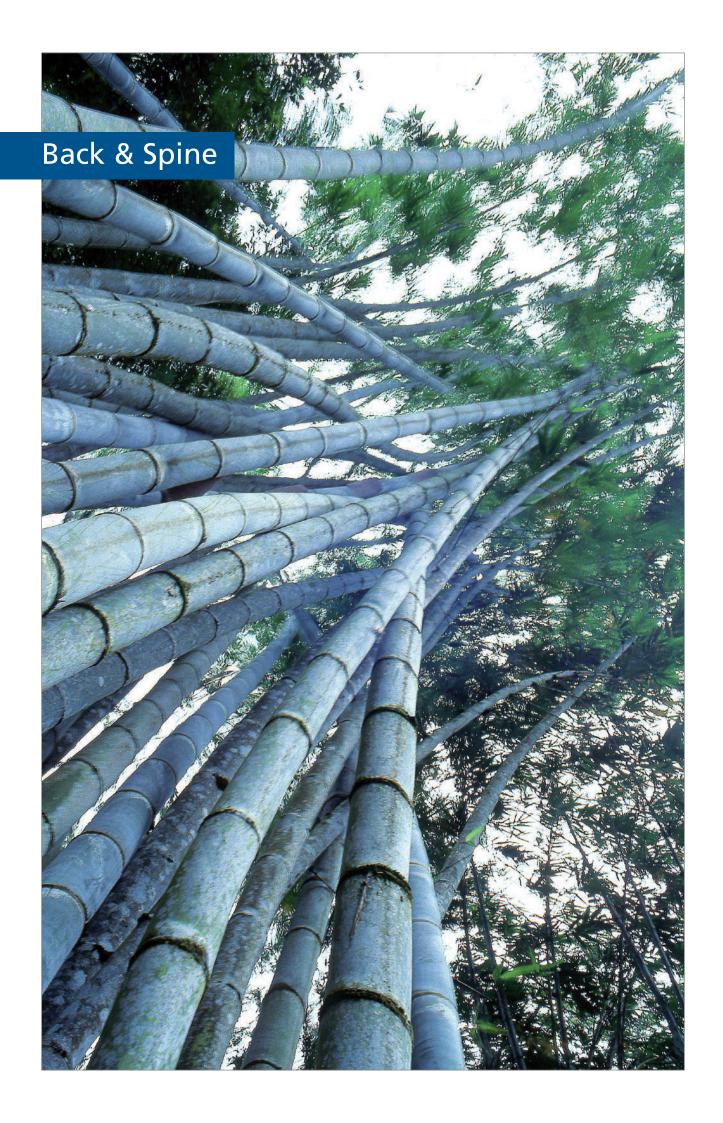
- material interactions/allergies
- do not wear directly on injured, irritated or damaged skin
- sensoric discomfort (pain)
- circulatory disorders, lymphoedema



Size	Pelvis circumfe- rence	Thigh cir- cumference	side	Item-No.
S	up to 85 cm	up to 60 cm	left	74B1/LS
M	up to 105 cm	up to 70 cm	left	74B1/LM
L	up to 125 cm	up to 80 cm	left	74B1/LL
S	up to 85 cm	up to 60 cm	right	74B1/RS
M	up to 105 cm	up to 70 cm	right	74B1/RM
L	up to 125 cm	up to 80 cm	right	74B1/RL

# replacement part

Description	Size	Side	Item-No.
Lining for hip brace	S	left	74B2/LS
	М	left	74B2/LM
	L	left	74B2/LL
Lining for hip brace	S	right	74B2/RS
	М	right	74B2/RM
	L	right	74B2/RL



# Back & Spine

The spine consists of 24 separated and approx. 9 - 10 other vertebrae, which are ossified in the sacral and coccyx segment. In regards to function, they can be divided into following sections

- The cervical spine with totally 7 vertebrae (vertebrae cervicalis), which is also called cervical segment.
- The thoracic spine with totally 12 vertebrae (vertebrae thoricacae), which is also called thoracic segment.
- The lumbar spine with totally 5 vertebrae (vertebrae lumbalis), which is also called lumbar segment.
- The sacral segment describes the sacral bone and coccygeal bone (os sacrum et os coccygis), which usually are ossified.

# Specialties of the individual spinal sections

- The first cervical vertebrae body (atlas) carries the head and allows nodding movements as well as lateral movement;
   the second cervical vertebrae body-axis enables by its pivot-shape the rotating movement between neck and head.
- The spinous processes are positioned overlapping at the thoracic spine; therefore blocking rotation. This is also the spot where the thoracic rib bones emerge.
- At the lumbar spine, the condylar processes are positioned against each other in such a way that rotation is not possible. In this section, the vertebrae bodies and the spinal disks are developed very strongly.
- The junction from the lumbar spine to the sacral bone is clearly angled and is called promontorium. The sacral vertebrae are ossified to one block and are the connection to the pelvic girdle.
- The coccygeal is present only rudimentarily and is not important any more for human being.

# Motion patterns of the spine

The human spine is curved in the shape of a double-S and as "elastic pole", ensures the human upright walk (homo erectus). Further to the static tasks, e. g. carry loads, the spine is very flexible, especially in the upper sections. Therefore, following motion sequences are possible

- Bending forwards (flextion)
- Extending backwards (extension)
- Tilting sideways (lateral flexion)
- Turning motion (rotation)



Next to respiratory diseases, back pain is the second most common reason for medical consultations.

# Basic shape of a vertebrae

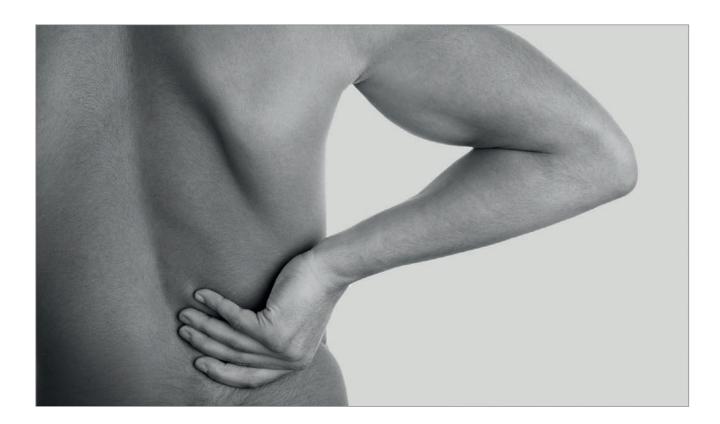
At the cylinder-shaped bone piece, there are 1 spinous process, 2 transverse processes and 4 condylar processes. At the transition from vertebral body to vertebral arch, the spinal nerves emerge from the intervertebral foramen. The vertebral arch surrounds the spinal cord and in the sum of the vertebral bodies, forms the vertebral canal.

## Function

The vertebral body carries the load, the vertebral arch surrounds and protects the spinal cord, the processes function as lever for muscles and ligaments.

# The vertebral disks

The 23 intervertebral disks, also called spinal disks, connect the single vertebral bodies and consist of an outer tissue ring (anulus fibrosus) and a soft gelatinous core (nucleus pulposus). These spacer disks allow motion in the spinal segment and have a shock absorbing function.



# Back & Spine

Nearly every one of us knows the subject "back pain" and has been affected by it at least once before. The trouble with the back can have plenty of causes. With the diagnosis of the orthopaedist, centre and extent of the pain are localised, and a therapy with medication, physiotherapy or orthpaedic aids will be initiated accordingly, or even be treated surgically. Like in nearly every therapy, major focus is put on immobilisation, erection and/or targeted motion by therapeutic exercise. Also, a change in lifestyle of the person affected (e. g. weight reduction, physiotherapy = PT) can contribute to gain positive control over back pain.

### Common disease patterns

# Cervical syndrome

Cervical syndrome is a collective term for all painful disorders in the segment of the cervical spine. By compression of the nerve roots many different diagnoses can be specified, such as stiff neck, migraine or pain radiating into

shoulder or arm. During traffic accidents, the cervical spine is a predestined site for injuries, due to acceleration and at the same time inertness of the head (e.g. Cervical acceleration-deceleration). For taking load off the cervical spine, simple orthopaedic aids can be used.

# Osteoporosis

Osteoporosis is a metabolic disease of the skeleton system with loss of bony substance ("bone thinning"). Due to the decreasing bone density, the fracture suspectibility increases especially at the disk bodies (respectively neck of femur, distal radius head). There, caused by the axial load, vertebral deformities ("fish vertebrae"), deck plate drops ("sinterings") and roundback deformity occur increasingly. Next to the development of a rounded back, this disease can cause pain. Bedriddenness and immobilisation (see hyperextension orthoses).

# Low back pain syndrome

Low back pain syndrome is a collective term for pain in the section of the lumbar spine and also known as lumbalgy, lumbosacral radiculopathy and lumbago. The cause often lies in irritation or compression of the nerve roots by the spinal disks. Often, overweight in combination with week abdominal and back muscles are responsible for this disease pattern (hollow-back = hyper-lordosis). Also, degenerative symptoms are often experienced in this spinal section and for the affected person, can also be rather painful.



# CerviSupport.basic

Cervical Spine Stabilisation Support, anatomic without reinforcement

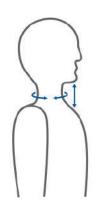
### Mode of Action

- support, immobilisation and relief of the cervical spine prevents pathological load distribution
- great wearing comfort by breathable foam material and soft cotton cover
- with laryngeal notch
- foam with medium compression hardness (gross density: 31,0 kg/m³ and compression hardness: 6 kPa)

### Indication

- distorsions of the cervical spine (whiplash injury, acceleration trauma)
- post-surgical care
- arteria-vertebralis-syndrome
- wry neck

- material interactions/allergies
- do not wear directly on injured, irritated or damaged skin
- tracheostomy
- respiratory distress



Size	Neck cir- cumference	Chin height	Colour	Item-No.
S	32 – 38 cm	7.5 cm	silver	130R1/7S
М	39 – 43 cm	7.5 cm	silver	130R1/7M
L	44 – 48 cm	7.5 cm	silver	130R1/7L
S	32 – 38 cm	9.0 cm	silver	130R1/9S
М	39 – 43 cm	9.0 cm	silver	130R1/9M
L	44 – 48 cm	9.0 cm	silver	130R1/9L
S	32 – 38 cm	11.0 cm	silver	130R1/11S
М	39 – 43 cm	11.0 cm	silver	130R1/11M
L	44 – 48 cm	11.0 cm	silver	130R1/11L



# CerviSupport.stabil

Cervical Spine Stabilisation Support, anatomic with reinforcement

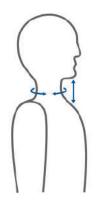
### Mode of Action

- support, immobilisation and relief of the cervical spine prevents pathological load distribution
- great wearing comfort by breathable foam material and soft cotton cover
- foam with medium compression hardness (gross density: 31,0 kg/m³ and compression hardness: 6 kPa)
- with laryngeal notch
- with integrated reinforcement bar (restricts motion range of the head)

## Indication

- distorsions of the cervical spine (whiplash injury, acceleration trauma)
- post-surgical care
- arteria-vertebralis-syndrome
- wry neck
- post traumatic pain disorders
- osteochondrosis/spondylarthrosis of the cervical spine

- material interactions/allergies
- do not wear directly on injured, irritated or damaged skin
- tracheostomy
- respiratory distress



Size	Neck cir- cumference	Chin height	Colour	Item-No.
S	32 – 38 cm	7.5 cm	silver	131R1/7S
М	39 – 43 cm	7.5 cm	silver	131R1/7M
L	44 – 48 cm	7.5 cm	silver	131R1/7L
S	32 – 38 cm	9.0 cm	silver	131R1/9S
М	39 – 43 cm	9.0 cm	silver	131R1/9M
L	44 – 48 cm	9.0 cm	silver	131R1/9L
S	32 – 38 cm	11.0 cm	silver	131R1/11S
М	39 – 43 cm	11.0 cm	silver	131R1/11M
L	44 – 48 cm	11.0 cm	silver	131R1/11L



# CerviSupport.philadelphia

Two-piece Cervical Spine Stabilisation Orthosis with sternum support

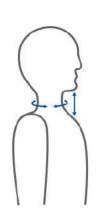
### Mode of Action

- supports and immobilises the cervical spine by supporting the sternum and the shoulder at the chin and at the back of the head
- complete immobilisation of the cervical spine through double shell principle



- Spondylarthrosis
- Cervical syndrome
- Tracheostomy
- post-surgical care
- post traumatic pain disorders
- structural loosening of the upper cervical spine
- simple and stable vertebral fractures

- material interactions/allergies
- do not wear directly on injured, irritated or damaged skin



Size	Neck cir- cumference	Chin height	Colour	Item-No.
S	25 – 33 cm	6 cm	caucasian	135R1/6S
М	33 – 41 cm	6 cm	caucasian	135R1/6M
L	41 – 48 cm	6 cm	caucasian	135R1/6L
XL	48+ cm	6 cm	caucasian	135R1/6XL
S	25 – 34 cm	8 cm	caucasian	135R1/8S
М	33 – 42 cm	8 cm	caucasian	135R1/8M
L	41 – 49 cm	8 cm	caucasian	135R1/8L
XL	48+ cm	8 cm	caucasian	135R1/8XL
S	25 – 35 cm	11 cm	caucasian	135R1/11S
М	33 – 43 cm	11 cm	caucasian	135R1/11M
L	41 – 50 cm	11 cm	caucasian	135R1/11L
XL	48+ cm	11 cm	caucasian	135R1/11XL
S	25 – 36 cm	13 cm	caucasian	135R1/13S
M	33 – 44 cm	13 cm	caucasian	135R1/13M
L	41 – 51 cm	13 cm	caucasian	135R1/13L
XL	48+ cm	13 cm	caucasian	135R1/13XL



# LumboMax.easy

Lumbar Spine Support for stabilisation, with tension strap and without lumbal pad

### Mode of Action

- compression of the abdominal wall, causing augmentation of the intraabdominal pressure
- straightening and delordosing of the lumbar spine by means of four flexible reinforcement rods in the lumbar area
- slight constraint of lateral movements and of rotation
- the compression of the support may be adjusted by additional lumbar belts, thereby relieving the back muscles

### Indication

- lumbalgia
- · lumbo-ischalgia
- irritative conditions of the sacroiliac joint (ilium-sacrum-joint)
- degenerative changes of the lumbar spine
- prophylaxis after discomfort of the lumbar spine



- material interactions/allergies
- do not wear directly on injured, irritated or damaged skin
- breathing difficulties, shortness of breath

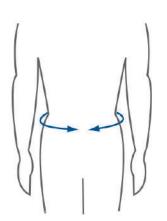




The elastic, breathable fabric adjusts itself optimally to the anatomy of the body. The grip flap enables a comfortable donning and doffing of the support.











Lumbar Spine Support for stabilisation, with tension strap and lumbal pad

### Mode of Action

- compression of the abdominal wall, causing augmentation of the intraabdominal pressure
- straightening and delordosing of the lumbar spine by means of four flexible reinforcement rods in the lumbar area
- slight constraint of lateral movements and of rotation
- the compression of the support may be adjusted by additional lumbar belts, thereby relieving the back muscles
- adjustable back pad provides compression and improved blood circulation of the lumbar area



- lumbalgia
- lumbo-ischalgia
- irritative conditions of the sacroiliac joint (ilium-sacrum-joint)
- degenerative changes of the lumbar spine
- prophylaxis after discomfort of the lumbar spine



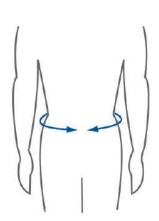
- material interactions/allergies
- do not wear directly on injured, irritated or damaged skin
- breathing difficulties, shortness of breath

Size	Waist circum- ference	back hight	Colour	Item-No.
XS	55 – 65 cm	24 cm	silver	66R1/XS
S	65 – 80 cm	24 cm	silver	66R1/S
М	80 – 90 cm	24 cm	silver	66R1/M
L	90 – 105 cm	24 cm	silver	66R1/L
XL	105 – 120 cm	24 cm	silver	66R1/XL
XXL	120 – 140 cm	24 cm	silver	66R1XXL





The elastic, breathable fabric adjusts itself optimally to the anatomy of the body. The grip flap enables a comfortable donning and doffing of the support.









# LumboSupport

Lumbar Orthosis with mobilisation functionality

### Mode of Action

- normalisation of posture by active straightening of the upper body
- increases the intra-abdominal pressure
- slight delordosing and pelvic erection, therefore support of the dorsal vertebral body parts
- · increased static and dynamic safety
- adjustable degree of stabilisation by removing the dorsal stabilisation element, the stabilising elements and the belt
- the breathable, innovative functional fibre Xtra-Dry increases the wearing comfort considerably



- post-surgical stabilisation of the lumbar spine area
- degenerative spinal disorders
- muscular insufficiency of the lumbar spine area
- chronic pain in the lumbar spine and iliosacral area
- ligamentoses
- · hyper-lordosis of the lumbar spine



- Material interactions/allergies
- do not wear directly on injured, irritated or damaged skin
- · hernia or other abdominal disorders
- obesity

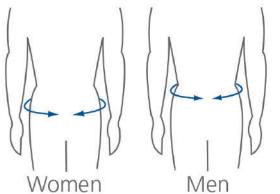
40R1 - Women

Size	Hip circumfe- rence	Colour	Item-No.
XS	65 – 75 cm	silver/anthracite	40R1/XS
S	76 – 86 cm	silver/anthracite	40R1/S
М	87 – 98 cm	silver/anthracite	40R1/M
L	99 – 111 cm	silver/anthracite	40R1/L
XL	112 – 125 cm	silver/anthracite	40R1/XL
XXL	126 – 140 cm	silver/anthracite	40R1/XXL





Size	Waist circumfe- rence	Colour	Item-No.
XS	66 – 76 cm	silver/anthracite	41R1/XS
S	77 – 88 cm	silver/anthracite	41R1/S
М	89 – 101 cm	silver/anthracite	41R1/M
L	102 – 115 cm	silver/anthracite	41R1/L
XL	116 – 130 cm	silver/anthracite	41R1/XL
XXL	131 – 146 cm	silver/anthracite	41R1/XXL



The front height is approx. 17 cm for both types (women's and men's sizes). The back height is approx. 30 cm for both types (women's and men's sizes).



Do not wear the LumoSupport directly on the skin. The orthosis must be worn on a T-shirt (e.g. Undershirt for Spinal Orthoses 145T20).







# LumboVario.tec

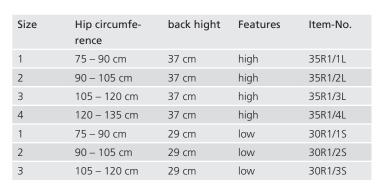
Flexion Orthosis with mobility function

### Mode of Action

- LumboVario.tec is a multifunctional spinal orthosis to thoroughly stabilise and steady the entire lumbar spine, including the lumbo-sacral passage, within each therapy phase
- in the course of rehabilitation process, the spinal orthosis allows targeted training of the spine by removing stabilising elements of the orthosis (back shell and boning bars)
- construction pad for support of pendulous abdomen

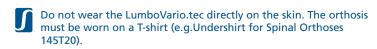
- post-surgical after intervertebral disc-surgery of the lumbar spine (L1 L5/S1)
- post-surgical after stabilising surgery or fusion (spondylodesis)
- spondylolisthesis (slight lumbar spondylolisthesis)
- narrowing of the vertebral canal (lumbal spinal canal stenosis)
- nerve root irritations due to narrowing at the foramen intervertebral
- degenerative instability (lumbal spondylarthrosis)
- bone cancer (osteosarcoma) of the lumbar spine
- inflammatory diseases of the lumbar spine (spondylitis)

- Material interactions/allergies
- do not wear directly on injured, irritated or damaged skin
- pressure sores in the areas concerned
- breathing difficulties, shortness of breath (Dyspnoea)
- vascular or other abdominal diseases
- missing perception (pain)













# Back & Spine

# 

# Spare Parts LumboVario.tec

Spare parts: short type



30R100, knitted part



35R110, plastic shell



35R130, PA-bar

Description	Size	Item-No.
knitted part	1	35R100/1L
	2	35R100/2L
	3	35R100/3L
	4	35R100/4L
plastic shell (Streifylast)	1	35R110/1L
	2	35R110/2L
	3	35R110/3L
	4	35R110/4L
PA-bars of the inner knitted part		35R130/L
Abdominal-pad with cotton cover		30R126

Spare parts: short type

, ,		
Description	Size	Item-No.
knitted part	1	30R100/1S
	2	30R100/2S
	3	30R100/3S
plastic shell (Streifylast)	1	30R110/1S
	2	30R110/2S
	3	30R110/3S
PA-bars of the inner knitted part		30R130/S
Abdominal-pad with cotton cover		30R126



# **TL Support**

Abdominal and Rib Fracture Support

### Mode of Action

• the TL support stabilises the outer ribcage and the abdominal area

# Indication

- post-surgical
- abdominal dysbalance
- incisional hernia, incisional protection
- rib contusions
- rib fractures

## Contraindication

- material interactions/allergies
- do not wear directly on injured, irritated or damaged skin
- missing perception
- breathing difficulties, shortness of breath

60B1 - Women

Features	Size	Colour	Waist circumfe- rence	Item-No.
waisted	S	white	58 – 72 cm	60B1/S
waisted	М	white	71 – 87 cm	60B1/M
waisted	L	white	86 – 102 cm	60B1/L
waisted	XL	white	100 – 116 cm	60B1/XL

## 61R1 - Men

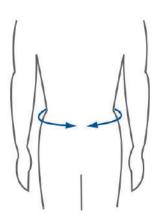
Features	Size	Colour	Waist circumfe- rence	Item-No.
straight	S	white	70 – 90 cm	61B1/S
straight	М	white	89 – 110 cm	61B1/M
straight	L	white	109 – 130 cm	61B1/L
straight	XL	white	125 – 150 cm	61B1/XL

The front and rear height of the women's and men's TL support is 25 cm.



60B1







# **Light TLSO Spinal Orthosis**

Orthosis for the relief of the thoracial/lumbal spine, limits movement in the sagittal and frontal plane

 including fastening system, lordosis 0° or lordosis 15°, made of Streifylast (Soft-PE)

# Mode of Action

- stabilisation of the entire torso
- partial support of the ventral vertrebral bodies
- minimisation of rotation and lateral inclination of the torso
- ready to fit semi-finished product

### Indication

- conservative therapy to immobilise lumbalgy, discopathy, spinal stenosis as well as compression factures of the vertrebral bodies
- used with reclination bracket item-no. 145R10, a reclination in the thoracol spinal segment is achieved
- preventative therapy for segment stabilisiation in the thoracolumbar and lumbosacral spinal segment
- post-operative therapy for post-traumatic stabilisiation of the spinal segments

# Contraindication

- material interactions/allergies
- do not wear directly on injured, irritated or damaged skin
- blood circulatory disorders

145T0/...D or 145T15/...D - Women

Chest / waist / hip	Lordose 0 ° item-no.	Lordose 15 ° item-no.
58 / 46 / 71 cm	145T0/1D	145T15/1D
63 / 51 / 76 cm	145T0/2D	145T15/2D
66 / 54 / 81 cm	145T0/3D	145T15/3D
69 / 58 / 86 cm	145T0/4D	145T15/4D
76 / 66 / 91 cm	145T0/5D	145T15/5D
84 / 74 / 97 cm	145T0/6D	145T15/6D
91 / 81 / 102 cm	145T0/7D	145T15/7D
91 / 84 / 109 cm	145T0/8D	145T15/8D
94 / 87 / 114 cm	145T0/9D	145T15/9D
101 / 96 / 117 cm	145T0/10D	145T15/10D

145T0/... or 145T15/... - Men

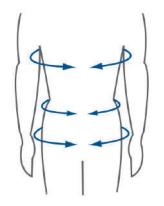
Chest / waist / hip	Lordose 0 ° item-no.	Lordose 15 ° item-no.
66 / 51 / 71 cm	145T0/1	145T15/1
71 / 61 / 76 cm	145T0/2	145T15/2
76 / 71 / 81 cm	145T0/3	145T15/3
84 / 76 / 86 cm	145T0/4	145T15/4
89 / 81 / 91 cm	145T0/5	145T15/5
94 / 86 / 97 cm	145T0/6	145T15/6
99 / 91 / 102 cm	145T0/7	145T15/7
109 / 97 / 109 cm	145T0/8	145T15/8
114 / 100 / 114 cm	145T0/9	145T15/9
117 / 104 / 117 cm	145T0/10	145T15/10



145T0



145T15





# Fastener System for TLSO Spinal Orthosis

stable type

### Material

- strap: textile leather
- hook and loop fasteners: polyamide
- guide roller and flap: metal



- smooth, rigid surface, can be cleaned with a damp cloth
- embossed markings for shortening and punching of rivet-holes
- high-quality and modern workmanship

PU = 1 piece

Colour	Width	Velcro area	Item-No.
white	25 mm	150 – 250 mm	145R12/25W
black	25 mm	150 – 250 mm	145R12/25S
dark blue	25 mm	150 – 250 mm	145R12/25DB
white	40 mm	150 – 350 mm	145R12/40W
black	40 mm	150 – 350 mm	145R12/40S
dark blue	40 mm	150 – 350 mm	145R12/40DB



# Reclination Bracket for Light TLSO Spinal Orthosis

- made of satinised and matte aluminum
- pre-drilled riveting holes
- adjustable angles by shifting the toothing
- wave-shaped edges for evenly rounding construction
- washable Subclavia-pads made of skin-friendly polyamid fabric
- adjustable velours strap with Y-hook and loop closure

PU = 1 pair

Size of the L-R-O	Item-No.
1 – 7	145R10/M
8 – 10	145R10/L



# Back & Spine



# Reinforcement Boning for Light TLSO Spinal Orthosis

- made of satinised and matte aluminum
- pre-drilled riveting holes
- wave-shaped edges for evenly roundings when contouring

PU = 1 set

Length	Item-No.
25 cm	145R11/25
35 cm	145R11/35



# **Undershirt for Spinal Orthoses**

Tanktop

The undershirt is used exclusively as underwear for spinal orthoses and furthermore also to isolate the skin surface during the casting process (plaster cast) for spinal orthoses.



- material interactions/allergies to the orthosis material
- friction and correction pressure
- hyperhidrosis
- temperature regulation
- insulation of skin surface during application of moulding technique

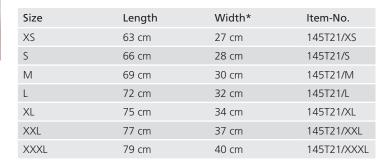
### Contraindication

- material interactions/allergies
- do not wear directly on injured, irritated or damaged skin

### Material

• 100 % combed cotton, Sanitized treated

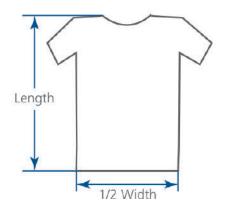
PU = 1 piece



\*width = 1/2 hem width, when stretched, length of the undershirt becomes shorter











T-Shirt

The undershirt is used exclusively as underwear for spinal orthoses and furthermore also to isolate the skin surface during the casting process (plaster cast) for spinal orthoses.



- material interactions/allergies to the orthosis material
- friction and correction pressure
- hyperhidrosis
- temperature regulation
- insulation of skin surface during application of moulding technique

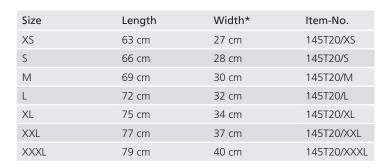
### Contraindication

- material interactions/allergies
- do not wear directly on injured, irritated or damaged skin

### Material

• 100 % combed cotton, Sanitized treated

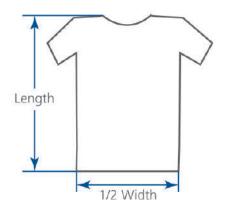
PU = 1 piece



\*width = 1/2 hem width, when stretched, length of the undershirt becomes shorter









# **Undershirt for Spinal Orthoses**

without sleeves

The undershirt is used exclusively as underwear for spinal orthoses and furthermore also to isolate the skin surface during the casting process (plaster cast) for spinal orthoses.



- material interactions/allergies to the orthosis material
- friction and correction pressure
- hyperhidrosis
- temperature regulation
- insulation of skin surface during application of moulding technique

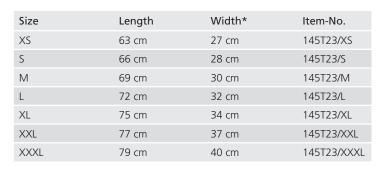
### Contraindication

- material interactions/allergies
- do not wear directly on injured, irritated or damaged skin

### Material

• 100 % combed cotton, Sanitized treated

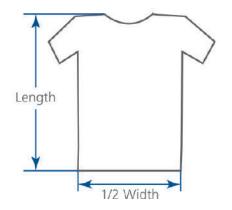
PU = 1 piece



\*width = 1/2 hem width, when stretched, length of the undershirt becomes shorter









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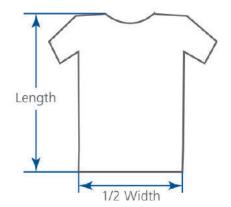
PU = 1 piece



 $\mbox{*width} = \mbox{1/2}$  hem width, when stretched, length of the undershirt becomes shorter









### TLSO (Hyperextension Orthosis)

Orthosis for the relief of the thoracial/lumbal spine, limits movement in the sagittal and frontal plane

• frame construction with mobile pelvis bar

### Mode of Action

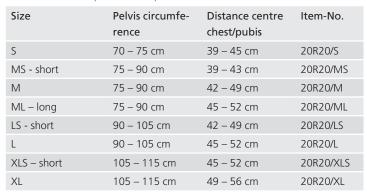
- relieving and erecting function in the area of the lumbar spine and the lower thoracic spine by means of three-point-principle
- limits movement of the upper body rotation and lateral inclination by the
- the 3-point principle is realized by means of an anatomically shaped lumbar pad, the ventral pelvis bar, and the sternum pad, all of which are individually adjustable to the patient

- stable traumatic vertebral fractures (L5 TH11)
- osteoporosis

### Contraindication

- material interactions/allergies
- do not wear directly on injured, irritated or damaged skin
- thoracic morbus scheuermann
- flectional-traction lesion

20R20 - with one-piece sternal pad





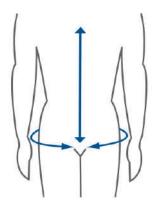
Size	Pelvis circumfe- rence	Distance centre chest/pubis	Item-No.
S	70 – 75 cm	39 – 45 cm	20R25/S
MS - short	75 – 90 cm	39 – 43 cm	20R25/MS
Μ	75 – 90 cm	42 – 49 cm	20R25/M
ML – long	75 – 90 cm	45 – 52 cm	20R25/ML
LS - short	90 – 105 cm	42 – 49 cm	20R25/LS
L	90 – 105 cm	45 – 52 cm	20R25/L
XLS – short	105 – 115 cm	45 – 52 cm	20R25/XLS
XL	105 – 115 cm	49 – 56 cm	20R25/XL



20R20



20R25





Do not wear the orthosis directly on the skin. To facilitate optimal fit and high wearing comfort, we recommend to wear an undershirt (item-nr. 145T20 - 145T23) under the orthosis.



# Spare Parts TLSO (Hyperextension Orthosis) 20R20/20R25





Pad cushion set

Designation	Sales unit	Size	Item-No.
Replacement cushion set for 20R20 (side pads, pelvis bar, sternum- and lumbar pad)	1 set	S	10R20/S
	1 set	MS	10R20/MS
	1 set	М	10R20/M
	1 set	ML	10R20/ML
	1 set	LS	10R20/LS
	1 set	L	10R20/L
	1 set	XLS	10R20/XLS
	1 set	XL	10R20/XL
Replacement cushion set for 20R25 (side pads, pelvis bar, sternum- and lumbar pad)	1 set	S	10R21/S
	1 set	MS	10R21/MS
	1 set	М	10R21/M
	1 set	ML	10R21/ML
	1 set	LS	10R21/LS
	1 set	L	10R21/L
	1 set	XLS	10R21/XLS
	1 set	XL	10R21/XL

10R21



### TLSO (Hyperextension Orthosis)

Orthosis for the relief of the thoracial/lumbal spine, limits movement in the sagittal and frontal plane

• frame construction with symphysis pad

### Mode of Action

- relieving and erecting function in the area of the lumbar spine and the lower thoracic spine by means of three-point-principle
- limits movement of the upper body rotation and lateral inclination by the frame construction
- the 3-point principle is realized by means of an anatomically shaped lumbar pad, the ventral pelvis bar, and the sternum pad, all of which are individually adjustable to the patient

#### Indication

- stable traumatic vertebral fractures (L5 TH11)
- osteoporosis

### Contraindication

- material interactions/allergies
- do not wear directly on injured, irritated or damaged skin
- thoracic morbus scheuermann
- flectional-traction lesion

25R20 - with one-piece sternal pad

Size	Pelvis circumfe- rence	Distance centre chest/pubis	Item-No.
S	70 – 75 cm	39 – 46 cm	25R20/S
M	75 – 90 cm	42 – 49 cm	25R20/M
L	90 – 105 cm	45 – 52 cm	25R20/L
XL	105 – 115 cm	49 – 56 cm	25R20/XL



Size	Pelvis circumfe- rence	Distance centre chest/pubis	Item-No.
S	70 – 75 cm	39 – 46 cm	25R25/S
M	75 – 90 cm	42 – 49 cm	25R25/M
L	90 – 105 cm	45 – 52 cm	25R25/L
XL	105 – 115 cm	49 – 56 cm	25R25/XL



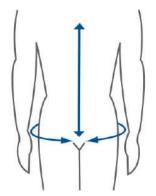
Do not wear the orthosis directly on the skin. To facilitate optimal fit and high wearing comfort, we recommend to wear an undershirt (item-nr. 145T20 – 145T23) under the orthosis.



25R20



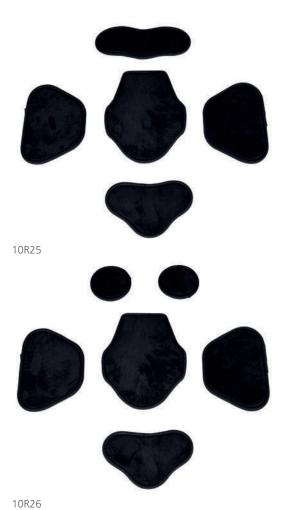
25R25



# Back & Spine



# Spare Parts TLSO (Hyperextension Orthosis) 25R20/25R25



Pad cushion set

Designation	Sales unit	Size	Item-No.
Replacement cushion set for 25R20 (side pads, pelvis bar, sternum- and lumbar pad)	1 set	S	10R25/S
	1 set	М	10R25/M
	1 set	L	10R25/L
	1 set	XL	10R25/XL
Replacement cushion set for 25R25 (side pads, pelvis bar, sternum- and lumbar pad)	1 set	S	10R26/S
	1 set	М	10R26/M
	1 set	L	10R26/L
	1 set	XL	10R26/XL



### TLSO (Hyperextension Orthosis)

Orthosis for the relief of the thoracial/lumbal spine, limits movement in the sagittal and frontal plane

• 3-point principle

### Mode of Action

- relieving and erecting function in the area of the lumbar spine and the lower thoracic spine by means of three-point-principle
- forward tilt of the pelvis and strengthening of the lumbar lordosis
- relief of the vertebral bodies at increased loads on the lumbar vertebral joints
- the 3-point principle is realized by means of an anatomically shaped lumbar pad as well as customizable symphysis and sternum pad, all of which are individually adjustable to the patient

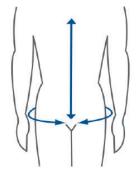
#### Indication

- stable traumatic vertebral fractures (L5 TH11)
- hyper kyphosis of the lower thoracic spine
- osteoporosis

### Contraindication

- material interactions/allergies
- do not wear directly on injured, irritated or damaged skin
- thoracic morbus Scheuermann
- flectional-traction lesion

Size	Pelvis circumfe- rence	Distance centre chest/pubis	Item-No.
S	70 – 75 cm	39 – 46 cm	10R1/S
M	75 – 90 cm	42 – 49 cm	10R1/M
L	90 – 105 cm	45 – 52 cm	10R1/L
XLS – short	105 – 115 cm	39 – 46 cm	10R1/XLS
XL	105 – 115 cm	49 – 56 cm	10R1/XL





Pad cushion set

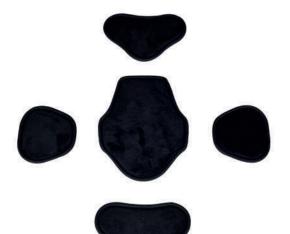
Do not wear the orthosis directly on the skin. To facilitate optimal fit and high wearing comfort, we recommend to wear an undershirt (item-nr. 145T20 – 145T23) under the orthosis.



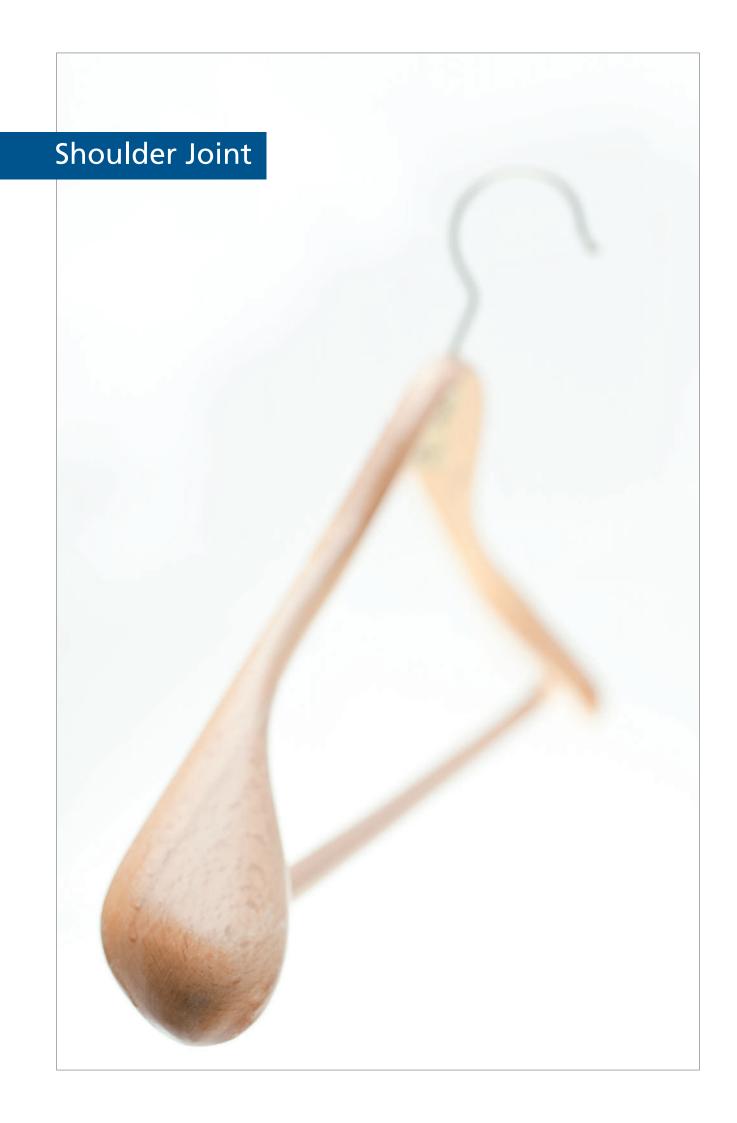
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### Spare Parts TLSO Hyperextension Orthosis 10R1



Designation	Sales unit	Size	Item-No.
Replacement cushion set (side pads, pelvis bar, sternum- and lumbar pad)	1 set	S	10R10/S
	1 set	М	10R10/M
	1 set	L	10R10/L
	1 set	XL	10R10/XL



### Shoulder Joint

The shoulder girdle is an instrument for our body language. So, hanging shoulders are often an Indication for frustration and depressiveness, shrugging the shoulders is a sign of cluelessness. However, shoulders drawn back with the chest bound forward signal self-confidence.

Considered functionally, the shoulder joint (articulatio humeri) is a spheroidal joint and compared to other joints, possesses the human body's widest motion range. It consists of shoulder blade (scapula) and collarbone (clavicula) and the joint head of the upper arm bone (caput humeri).

The great flexibility of the shoulder joint is facilitated by the uneven relation of the joint head and the joint socket. Thus, the joint head is considerably bigger than the joint socket, the latter is additionally enlargened by a cartilaginous joint lip (labrum glenoidale). The shoulder joint is surrounded by a joint capusle, which continuously emits new joint liquid (synovia) to the inside to provide the sliding process of the cartilaginous joint ends.

An inner muscle-tendon-cap\* (which is often called "rotator cuff") secures, centers and protects the shoulder joint from loads and is supposed to prevent spontaneous luxating.

An outer muscle layer, especially of the delta muscle (musculus deltoideus) serves as most important abductor and is among others, responsible for the outer rotation of the shoulder joint.

(\* musculus supraspinatus, musculus infraspinatus, musculus teres minor)



Regarded individually, the flexible and muscular suspension of the shoulder girdle to the trunk already allows a large range of various motion patters. Thus, muscle groups prevent dropping of the shoulder girdle when carrying loads; or dropping of the trunk against the shoulder girdle for example when resting against something or hanging at a high bar.

In connection with the actual shoulder joint, following range of movements is possible

Swing forwards (anteversion) = 170°
 Swing backwards (retroversion) = 40°
 Spreading (abduction) = 180°
 Tightening (adduction) = 40°
 Inner rotation = 100°
 Outer rotation = 90°



### Shoulder Joint – Joint Dislocation (Luxation)

The most common injury of the shoulder joint is the joint-dislocation. This dislocation develops by a levering impact of violence onto the shoulder joint, usually consequently after a quick abduction- or outer rotation-movement of the arm. Far more seldom is a habitual shoulder luxation due to an inherited weakness of the joint capsule.

After a luxation, the person affected usually adopts a relieving posture; and holds his arm in order to avoid the partially very painful movements of the shoulder. After the anamnesis, the treating physician can require an x-ray in order to eliminate the possibility of fractures of the shoulder joint.

### Therapy

Depending on the extent of the shoulder luxation, a quick and gentle reposition of the humerus head is initiated. The real reposition of the shoulder joint in the joint socket is done under local anaesthesia, by resetting the dislocated joint with the so-called Hippokrates-maneuver (respectively the Arlt-maneuver over an arm-rest of a chair).

Following after, the reset arm is immobilised for several weeks by means of a Gilchrist- or Desaultbandage, in order to achieve a cicatrisation of the torn capsule-ligament structures of the shoulder joint.

Once a shoulder joint has been dislocated, it may luxate again due to the weakness of the joint capsule and if needed, must be treated by arthroscopic surgery.



### ClaviculaSupport

Shoulder Sling

### Mode of Action

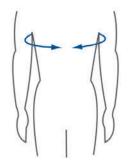
- fixation of the collar bone
- pulling back the entire shoulder girdle ("rucksack sling")
- relief of clavicula fractures
- Gentle posture promotes healing and reduces pain

### Indication

• Conservative therapy of clavicle fractures

### Contraindication

- material interactions/allergies
- do not wear directly on injured, irritated or damaged skin
- open fractures
- · missing perception



Size	Chest circumfe- rence	Size women	Size men	Item-No.
XS	50 – 65 cm	/	1	120R1/XS
S	65 – 80 cm	up to 34	1	120R1/S
М	80 – 95 cm	36 – 40	up to 48	120R1/M
L	95 – 110 cm	42 – 48	50 – 52	120R1/L
XL	110 – 125 cm	48 – 52	56 – 60	120R1/XL

Item no. 120R1/XS is suitable for children (clothing size up to 140). Item no. 120R1/S is suitable for children (clothing size up to 176).









### OmoSupport.gilchrist

Shoulder Joint Sling for immobilisation in a defined position (Gilchrist's Sling)

### Mode of Action

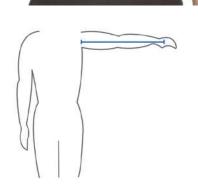
- fixation of the entire arm during shoulder injuries
- · can also be worn over light clothing
- relieving posture benefits the healing process and reduces pain

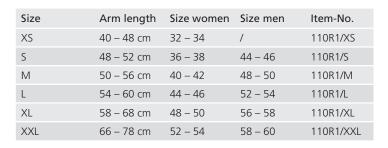
### Indication

- shoulder injuries such as distorsions, contusions
- subluxation and luxation of the shoulder joint, luxation fracture
- · humeral head- and humeral shaft fractures
- injuries of the rotator cuff
- · post-surgical care

### Contraindication

- material interactions/allergies
- do not wear directly on injured, irritated or damaged skin
- · arterial occlusions
- congestions of the lymphatic system







The OmoSupport.gilchrist can be worn on right or left side.



### OmoSupport.easy

Shoulder Joint Sling for immobilisation in a defined position

### Mode of Action

- fixates the entire arm in flexed inner rotation position during the therapy of shoulder injuries
- relieving posture benefits the healing process and reduces pain
- healing process of humeral head fractures (upper arm shaft) will be improved and accelerated

#### Indication

- shoulder injuries such as distorsions, contusions
- subluxation and luxation of the shoulder joint, luxation fracture
- humeral head- and humeral shaft fractures
- injuries of the rotator cuff
- post-surgical care

### Contraindication

- material interactions/allergies
- do not wear directly on injured, irritated or damaged skin
- · arterial occlusions
- congestions of the lymphatic system

### Feature

- simple size options: "2 fit for all" therefore low stock keeping
- simple handling: easy application of the shoulder sling without help
- partially flexible body strap: elastic insert of the body strap provides unrestricted breathing
- innovative hand pocket closure: individual adjustment even for bandaged limbs
- upper material with clinging structure for hook straps: individual adjustment

Size	Waist circumfe- rence	Colour	Item-No.
М	up to 100 cm	silver/black	105R1/M
L	100 – 140 cm	silver/black	105R1/L



The OmoSupport.easy can be worn on right or left side.









### Arm & Elbow

The arm resp. the free upper extremity is divided into upper arm (brachium), forearm (antebrachium) and hand (manus). The arm is the human body part with the greatest mobility of all, which is based on the construction of the shoulder joint.

The upper arm bone (humerus) is the longest bone of the arm. Its rounded head (caput humeri) is located proximally and is part of the shoulder joint.

Distally at the upper arm bone, two large upper arm condyles (epicondylus medialis et lateralis) are adjoined which are positioned laterally of the elbow joint.

The upper arm muscles can be divided into the bending (flexors) and extending (extensors) muscles. The most important upper arm muscles are positioned in the front, in order to bend the forearm (musculus biceps brachii et musculus brachialis). The muscles to extend the forearm (musculus triceps brachii) are located at the backside of the upper arm.



The elbow (cubitus) connects upper- and forearm, consists of crook of the arm (fossa cubitalis) and the elbow joint (articulatio cubiti). Due to the merging of upper arm bone, spoke bone and ulna bone, the elbow joint consists of three partial joints (articulatio humeroradialis, articulatio humeroulnaris, articulatio radioulnaris proximalis), which are surrounded by a common joint capsule. This capsule is reinforced by three ligaments: inner ligament, outer ligament and ring ligament.

During bending and extending the elbow, a hinge-like movement occurs between upper- and forearm. Because of the three-part construction (rotating and hinged joint) of the elbow joint, rotating movements of the forearm in the sense of supination and pronation are also possible, during which the spoke bone rotates around the ulna bone. Several large nerve cords run parallel along the upper arm bone and innervate the flexors (mainly nervus medianus) and extensors (mainly nervus radialis) of the forearm.

The forearm merges between elbow joint (articulatio cubiti) and wrist (carpus) and consists of two bones: the spoke bone (radius) and the ulna bone (ulna). The forearm muscles can be also divided into two groups – the bending (flexors) and extending (extensors) muscles. The muscles mostly merging from the forearm move the hand as effector.

The "ell" is one of the oldest nature measures. It measures the distance between elbow and second fingertip. Especially tailors used this measure. Why or when the second "I" was dropped from the word, is unknown.

## Arm & Elbow – Epicondylitis

This pain syndrome is a classic overload symptom caused by overstraining the forearm muscles by monotone, constantly repeating movements, incorrect postures or everyday techniques; as well as incorrect sleeping posture in lateral position. The orthopaedist differentiates between "tennis arm" (epicondylitis humeri radialis) and "golf elbow" (epicondylitis humeri ulnaris). The more common "tennis arm" is usually an irritation of the extension muscle insertion of the forearm, while the less common "golf elbow" concerns the insertion of the flexing forearm muscle. The corresponding condyle is sensitive to pressure and physical contact. Every mechanical strain against the extending or flexing musculature is painful.

### Therapy

Several methods are available to treat an epicondylitis; besides medication with ointments or gels containing diclofenac, there are also physio-therapeutical approaches to heal this overload emergence. The painful section can be e. g. cooled with ice, treated with massage to loosen the musculature or therapied with electric stimulation by means of a TENS-unit. Orthopaedic aids such as an arm sling provide absolute immobilisation on the one hand or, on the other, are supporting a functional therapy with braces or supports such as D-E-S-A Epicondylitis Brace. Surgery is only necessary in very rare cases.

### Prophylaxe

Man is a creature of habit. This truism can also be transferred to learned or trained behaviour- and motion patterns. Especially in our information society, computer work has become essential; which can be very stressful and straining for our hands operating the keyboard and the mouse. Once a painful overstrain has been developed, one will be forced to reconsider his habits. An approach to solve this would be e. g. an ergonomical designed keyboard or a new hand rest for the mouse, to protect oneself from overstraining.



### D-E-S-A

Epicondylitis Brace to take to load off muscle groups



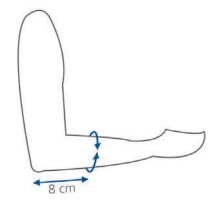
- according to Dr. med. Werner Zirngibl
- the silicone cover of the brace is comfortable wearing and is especially suitable for allergy sufferers
- tension relief for the entheses at the epicondylus
- the compressing effect to the forearm muscle eases the discomfort during physical strain
- with the hook- and loop fastener, the elastic belt strap is adjustable to various forearm circumferences

#### Indication

• enthesis and insertion tendinopathy at epicondylus radialis and ulnaris, caused by physical strain

### Contrain dication

- material interactions/allergies
- do not wear directly on injured, irritated or damaged skin
- blood circulatory disorders
- paralysis (e. g. hemiparesis)



Size	Forearm circum- ference	side	PCN	Item-No.
1	240 – 260 mm	left	11097971	139T4/1L
2	270 – 290 mm	left	11097994	139T4/2L
3	300 – 320 mm	left	11098019	139T4/3L
4	330 – 350 mm	left	11098031	139T4/4L
1	240 – 260 mm	right	11097988	139T4/1R
2	270 – 290 mm	right	11098002	139T4/2R
3	300 – 320 mm	right	11098025	139T4/3R
4	330 – 350 mm	riaht	11098048	139T4/4R



### Hand & Wrist

The hand is man's most complex body part and serves as working instrument as well as communication- and expression medium. The perfect interaction of skin, muscles, nerves, tendons and bones makes the hand an incomparable tool. For many years, man is trying without success, to copy it in its perfection. Infants start to learn with their hands by grasping and thus understanding things; with our hands we stay in "touch" with our surroundings: we stroke, feel, do; and with them, we literally can "lend a hand". The wrist is the connection link between forearm and hand. Anatomically, the wrist is shaped like an egg and allows the hand to bend (palmar flexion), to extend (dorsal extension) as well as spreading movements (radial- and ulnar-abduction). Only due to this combination of wrist and hand, the various, partially very complex motion patterns are possible.



"Man is the most intelligent of all creatures, because he has hands". Anaxagoras (cited by Aristoteles)



Similar to the foot, the hand-skeleton can be divided into three sections: the bones of the hand root (carpus), the bones of the palm (metacarpus) and the bones of the fingers (digiti). Referring to the body centre, the 14 finger bones can be further divided:

The finger bones nearest to the body are called proximal phalanges, the ones in the middle are intermedial phalanges and the ones furthest away from the body are the distal phalanges.

The characterization of finger joints also functions according to this logic

- The finger joint nearest to the body is the metacarpophalangeal joint.
- The finger joint in the middle is the proximal interphalangeal joint.
- The finger joint furthest away from the body is the distal interphalangeal joint.

The thumb has a special status: it is the only (and first) finger without intermedial bone-part. While performing a power grip, it takes an opposing position in order to tightly grasp larger subjects.



The eight bones of the wrist are arranged in two rows of four. The bones of the proximal row are: Scaphoid, Lunate, Triquetral and Pisiform. The bones of the distal row are: Trapezium, Trapezoid, Capitate and Hamate.

An easy way to remember them all is with the mnemonic, "Some Lovers Try Positions That They Can't Handle."

Another mnemonic that can be used is, "She Looks Too Pretty, Try To Catch Her."

### Hand & Wrist Injuries

Day in, day out, our hands are subject to remarkable stress and strains. Therefore, many activities in job or leisure time, lead to increasing repetitive discomforts or injuries such as traumata, overload symptoms and degenerative joint diseases.

Diseases of hand and wrist can have very individual characteristics and therefore require for their treatment a high degree of specialized knowledge.

Due to the plentitude of the multiplex disease patterns of hand or wrist, the carpal tunnel syndrome (CTS) as classical overload disease has been picked for particular description.

### Causes

The carpal tunnel syndrome is a painful tightness of the inner carpal tendon sheaths. Inside the carpal tunnel (canalis carpi) of the inner wrist, runs a tendon compartment for the flexing tendons; which is additionally held at the wrist by means of a large circular ligament. The tissue of this "tunnel-like tube" can swell by mechanical overload or inflammation and irritate the nerve (nervus medianus) which causes the pain.

### Symptoms

The person affected report pain or discomfort, as well as numbness of the hands, especially at night.

### Diagnosis

Next to examination by palpation (touching) and provocation by overextending the wrist, the physician will determine the nerve conduction speed. This common test informs about disturbance of the stimulation transmission, often in direct comparisation to the healthy hand.

### Therapy

Lighter cases of carpal tunnel syndrome are treated by immobilising hand, wrist and forearm by wearing supports or wrist braces. Pain-relieving and anti-inflammatory medication, oint- ments and cooling compresses also help to relieve the symptoms. Whereas, heavy cases of CTS are treated by surgically incising or even severing the circular ligament.



### PhalanxSupport

Stack Finger Splint Set



- immobilisation of the fingers and the thumb
- immobilisation and protection of the finger end joint and finger stops
- hook and loop fasteners can be attached individually and guarantees necessary grip



- radiodorsal tendon rupture
- injuries of the fingertips and nail bed
- ligament sprain and lesion
- ruptures of the lateral parts of the pulley

### Contraindication

- material interactions/allergies
- do not wear directly on injured, irritated or damaged skin





Size	Sales unit	Item-No.
1	10 pcs	5R1/1
2	10 pcs	5R1/2
3	10 pcs	5R1/3
4	10 pcs	5R1/4
5	10 pcs	5R1/5
5.5	10 pcs	5R1/5,5
6	10 pcs	5R1/6
7	10 pcs	5R1/7



When judging the fit, please pay attention to not block circulation.









### ManuSupport

Wrist Orthosis for immobilisation in two directions of movement



- by means of the hook- and loop fastening system, consisting of three individually adjustable fasteners, the wrist orthosis can be optimally adapted to the hand shape
- the mobility of the thumb maintains
- the anatomically shaped and according to indication adjustable wide palm brace secures the hand in functional position therefore the extensor muscle of the forearm can relax and the enthesis at the elbow is relieved
- two spiral coils at the back of the hand increase stability
- elastic insert facilitates the donning of the orthosis

### Indication

- arthrosis
- injuries of the wrist (e.g. distortion)
- tendovaginitis
- pain in the wrist (e.g. rheumatic pain)
- carpal tunnel syndrome
- ligamental injuries
- post-operative after injuries, surgery, after removing plaster casts

### Contraindication

- material interactions/allergies
- do not wear directly on injured, irritated or damaged skin
- circulatory or lymphatic disorders
- sensory discomfort

Colour: silver/black

Size	Wrist cir- cumference	side	Colour	Item-No.
XS	13 – 15 cm	left	silver/black	31B1/LXS
S	15 – 17 cm	left	silver/black	31B1/LS
М	17 – 19 cm	left	silver/black	31B1/LM
L	19 – 21 cm	left	silver/black	31B1/LL
XL	21 – 23 cm	left	silver/black	31B1/LXL
XS	13 – 15 cm	right	silver/black	31B1/RXS
S	15 – 17 cm	right	silver/black	31B1/RS
M	17 – 19 cm	right	silver/black	31B1/RM
L	19 – 21 cm	right	silver/black	31B1/RL
XL	21 – 23 cm	right	silver/black	31B1/RXL



Outer length of orthosis: approx. 19 cm



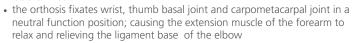






Wrist Orthosis with removable thumb fixation





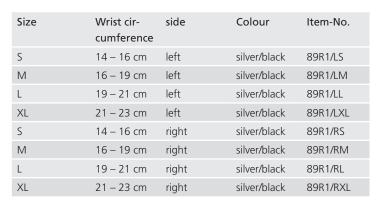
- the mobility of the distal phalanx of the finger is maintained (e.g. for writing)
- adjustable dorsal and volar support for stabilisation of wrist and metacarpus
- with its elastic insert, the wrist orthosis can be opened wide and therefore makes donning easier
- belts with return protection simplify donning with one hand
- flexible aluminium frame for adjustable thumb fixation
- hook- and loop strap connection of thumb fixation with the hand orthosis provides individual position of the thumb fixation
- during ongoing therapy, the thumb fixation may be completely removed;
   which increases the mobility of the thumb basal joint



- post surgical or post traumatic irritation of the wrist and thumb basal- and carpometacarpal joint
- severe rhizarthritis
- degenerative conditions of wrist and thumb
- severe cases of tendovaginitis and carpal tunnel syndrome; as well as distortion



- material interactions/allergies
- do not wear directly on injured, irritated or damaged skin
- circulatory or lymphatic disorders
- sensory discomfort









### ManuSupport.fix

Wrist Support for immobilisation in one direction of movement



- the volar wrist orthosis holds the metacarpal area, the wrist and the forearm in a neutral resting position
- easy customisation to the individual anatomy of wrist by simply bending and shaping the aluminium frame



- tendovaginitis
- carpal tunnel syndrome
- post-surgical immobilisation

### Contraindication

- material interactions / allergies
- do not wear directly on injured, irritated or damaged skin
- angiopathy (oedemata)
- sensory discomfort



Size	Wrist cir- cumference	side	Colour	Item-No.
S	15 – 17 cm	left	anthracite	85R1/LS
М	17 – 19 cm	left	anthracite	85R1/LM
L	19 – 21 cm	left	anthracite	85R1/LL
S	15 – 17 cm	right	anthracite	85R1/RS
М	17 – 19 cm	right	anthracite	85R1/RM
L	19 – 21 cm	right	anthracite	85R1/RL





Wrist Orthosis with thumb- and finger immobilisation, individually adjustable



### Mode of Action

- the volar wrist orthosis ManuSupport.r-fix keeps fingers, thumb, wrist and forearm in a neutral resting position
- customisation of the thumb splint to the individual thumb and wrist joint anatomy is achieved by simply bending and shaping the aluminium frame



- for night postural support
- tendovaginitis
- carpal tunnel syndrome
- post-surgical immobilisation
- wrist distortion
- arthritis



- material interactions/allergies
- do not wear directly on injured, irritated or damaged skin
- angiopathy (oedemata)
- sensory discomfort



Size	Wrist cir- cumference	side	Colour	Item-No.
S	15 – 17 cm	left	anthracite	80R1/LS
M	17 – 19 cm	left	anthracite	80R1/LM
L	19 – 21 cm	left	anthracite	80R1/LL
S	15 – 17 cm	right	anthracite	80R1/RS
M	17 – 19 cm	right	anthracite	80R1/RM
1	19 – 21 cm	right	anthracite	80R1/RI



### RhizoSupport.light

Thumb Splint for immobilisation of saddle and basic joint of the thumb



- stabilises the saddle joint of the thumb / metacarpophalangeal joint by means of the built-in aluminium frame
- customisation of the thumb splint to the individual thumb and wrist joint anatomy is achieved by simply bending and shaping the aluminium frame



- irritation of the thumb joints / metacarpophalangeal joint I
- rhiz-arthrosis of the saddle joint of the thumb / trapeziometacarpal arthritis
- ulnar collateral ligament lesion (skier's thumb)
- distortion / severe sprain of the thumb

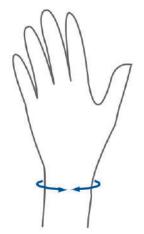
### Contraindication

- material interactions/allergies
- do not wear directly on injured, irritated or damaged skin
- angiopathy (oedemata)



By cutting along the pre-defined lines (embossing lines), the height of the thumb splint may be adjusted. Depending on therapy goal, cutting along the embossing lines provides exposure and mobilisation of the thumb end joint.

Size	Wrist circumference	Item-No.
S	14 – 16 cm	87R1/S
М	16 – 18 cm	87R1/M
L	18 – 22 cm	87R1/L





The RhizoSupport.light can be worn on left or right side by simply turning the hand loop.



### Functional Thumb Splint with fabric lining

Thumb Support for the immobilisation of the saddle and base joint, made of soft polyethylene

### Mode of Action

- immobilisation of the thumb-saddle joint and metacarpo-phalangeal joint of the thumb; as well as partial immobilisation of the radial carpus without great restriction of the grip function
- the thermoplastic material can be individually customised to the user's needs
- the attached hook- and loop fastener allows individual adjustment of the
- due to its functional concept with dirt-repellent and waterproof materials, the functional thumb splint can be worn at work and at home
- Including fabric lining made of cotton/elastane

- degenerative conditions of the thumb saddle joint
- arthrosis of the radial metacarpus
- · skier's thumb
- lateral ligament lesions MP 1
- partial immobilisation of the radial carpus



- Material interactions/allergies
- do not wear directly on injured, irritated or damaged skin
- · increasing swelling
- lymph drain malfunctions
- blood circulatory disorders







136T2



Size	Wrist cir- cumference	side	Colour	Item-No.
S	14 – 16 cm	left	white	136T1/LK
М	16 – 18 cm	left	white	136T1/LM
L	18 – 22 cm	left	white	136T1/LG
S	14 – 16 cm	right	white	136T1/RK
М	16 – 18 cm	right	white	136T1/RM
L	18 – 22 cm	right	white	136T1/RG
S	14 – 16 cm	left	caucasian	136T2/LK
М	16 – 18 cm	left	caucasian	136T2/LM
L	18 – 22 cm	left	caucasian	136T2/LG
S	14 – 16 cm	right	caucasian	136T2/RK
М	16 – 18 cm	right	caucasian	136T2/RM
L	18 – 22 cm	right	caucasian	136T2/RG

## Hand & Wrist

# 



136T14 / 136T15



136T16 / 136T17



### Fabric Lining for Funtional Thumb Splint

- fabric lining for additional cushioning and hygiene of Funtional Thumb Splint item-no. 136T1 and 136T2
- material: 96 % cotton and 4 % elastane
- PU = 1 piece

white, for Item-No. 136T1

Size	Wrist circumfe- rence	side	Item-No.
S – M	14 – 18 cm	left / right	136T14
L	18 – 22 cm	left / right	136T15

beige, for item-no. 136T2

Size	Wrist circumfe- rence	side	Item-No.
S - M	14 – 18 cm	left / right	136T16
L	18 – 22 cm	left / right	136T17

Item-No.

193P3/L1

193P3/L2

193P3/L3

193P3/R1

193P3/R2

193P3/R3



### Forearm and Hand Splint with Plastazote-lining

made of Streifylen (PE), 2 mm, including 3 self-adhesive hook and loop straps and rivets



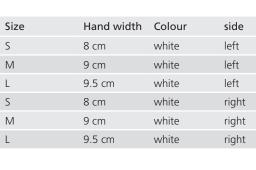
- optimal immobilisation of the wrist as well as finger- and thumb joints
- due to complete immobilisation, this orthosis can be used as night splint
- the thermoplastic material can be individually customised to the user's needs

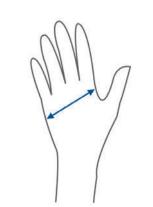
### Indication

- carpal tunnel syndrome
- wrist arthrosis
- rhiz-arthrosis
- wrist tendovaginitis
- chronic polyarthritis (CP)
- rheumatoid arthritis of the wrist with CP
- spastic contractures of the wrist

### Contraindication

- material interactions / allergies
- do not wear directly on injured, irritated or damaged skin
- circulatory disorders, venous or lymphatic return disorders, lymph oedema
- sensibility disorders
- instable fractures of wrist and forearm

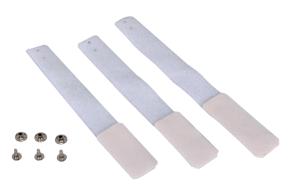




### Hook and Loop Fastener System

for forearm positioning splints

• the hook and loop fastener system includes three self-adhesive hook and loop straps with three corresponding tubular rivets for attaching to forearm positioning splints



Size	Colour	Item-No.
S	white	60T50/1
М	white	60T50/2
L	white	60T50/3
S	peach	60T51/1
M	peach	60T51/2
L	peach	60T51/3



### Forearm-Hand Splint

made of Streifylen (PE) or Streifylast (soft-PE), 4 mm



- optimal immobilisation of the wrist as well as finger- and thumb joints
- due to entire immobilisation, this orthosis can be used as night splint
- the thermoplastic material can be individually adapted to fit the patients' needs



- carpal tunnel syndrome
- wrist arthrosis
- rhiz-arthrosis
- wrist tendovaginitis
- chronic polyarthritis (CP)
- CP with rheumatoid wrist
- spastic contractures of the wrist

### Contraindication

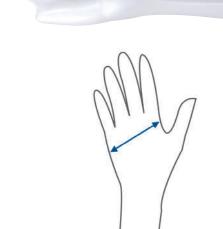
- material interactions/allergies
- do not wear directly on injured, irritated or damaged skin
- circulatory disorders, venous or lymphatic return disorders, lymph oedema
- sensibility disorders
- instable fractures of the wrist or forearm

193P1 and 193P2 - made of Streifylen (PE)

Size	Hand width	Colour	side	Item-No.
S	8 cm	white	left	193P1/L1
М	9 cm	white	left	193P1/L2
L	9.5 cm	white	left	193P1/L3
S	8 cm	white	right	193P1/R1
М	9 cm	white	right	193P1/R2
L	9.5 cm	white	right	193P1/R3
S	8 cm	caucasian	left	193P2/L1
М	9 cm	caucasian	left	193P2/L2
L	9.5 cm	caucasian	left	193P2/L3
S	8 cm	caucasian	right	193P2/R1
М	9 cm	caucasian	right	193P2/R2
L	9.5 cm	caucasian	right	193P2/R3

193P5 and 193P4 - made of Streifylast (soft PE)

Size	Hand width	Colour	side	Item-No.
S	8 cm	white	left	193P5/L1
М	9 cm	white	left	193P5/L2
L	9.5 cm	white	left	193P5/L3
S	8 cm	white	right	193P5/R1
М	9 cm	white	right	193P5/R2
L	9.5 cm	white	right	193P5/R3
S	8 cm	caucasian	left	193P4/L1
М	9 cm	caucasian	left	193P4/L2
L	9.5 cm	caucasian	left	193P4/L3
S	8 cm	caucasian	right	193P4/R1
М	9 cm	caucasian	right	193P4/R2
L	9.5 cm	caucasian	right	193P4/R3





### Thumb-, Hand- and Forearm Orthosis

Wrist Orthosis welded construction with thumb immobilisation made of soft Streifylast (soft-PE)



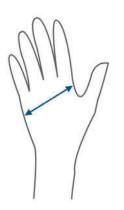
- Mode of Action
  the thumb-, hand- and forearm orthosis enables the support and immobilisation of the thumb joint and wrist with full mobility of the fingers
- the thermoplastic material as well as the attached hook- and loop fasteners allow individual customisation of the orthosis
- the orthosis is used at work or at home because of its functional structure and the dirt-resitant and water-resitant material
- equipment like fabric lining item-no. 193P0 separately available



- strains and distorsions of wrist and thumb joints
- post-surgical immobilisation after fracture care
- functional support for radial nerve palsy
- rheumatoid arthritis
- · immobilisation

### Contraindication

- material interactions/allergies
- do not wear directly on injured, irritated or damaged skin
- circulatory disorders, venous or lymphatic return disorders, lymph oedema
- sensibility disorders
- instable fractures of the wrist or forearm



Size	Hand cir- cumference	Colour	side	Item-No.
S	20 cm	white	left	193P6/L1
M	21.5 cm	white	left	193P6/L2
L	23 cm	white	left	193P6/L3
S	20 cm	white	right	193P6/R1
M	21.5 cm	white	right	193P6/R2
L	23 cm	white	right	193P6/R3
S	20 cm	caucasian	left	193P7/L1
M	21.5 cm	caucasian	left	193P7/L2
L	23 cm	caucasian	left	193P7/L3
S	20 cm	caucasian	right	193P7/R1
M	21.5 cm	caucasian	right	193P7/R2
L	23 cm	caucasian	right	193P7/R3



### Hand- and Forearm Orthosis

Wrist Orthosis welded construction without thumb immobilisation made of Streifylast (soft-PE)

### Mode of Action

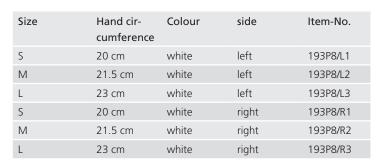
- the hand- and forearm orthosis immobilises and supports the wrist and the metacarpus in functional position without considerably limiting the ability to grasp
- the thermoplastic material as well as the attached hook- and loop fasteners allow individual customisation of the orthosis
- the orthosis is used at work or at home because of its functional structure and the dirt-resitant and water-resitant material
- equipment like fabric lining item-no. 193P0 separately available

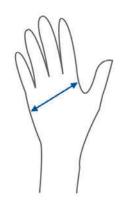
### Indication

- wrist strains and distorsions
- post-surgical immobilisation after fracture care
- functional support for radial nerve palsy
- rheumatoid arthritis
- immobilisation

### Contraindication

- material interactions/allergies
- do not wear directly on injured, irritated or damaged skin
- circulatory disorders, venous or lymphatic return disorders, lymph oedema
- sensibility disorders
- instable fractures of the wrist or forearm

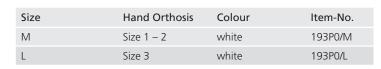




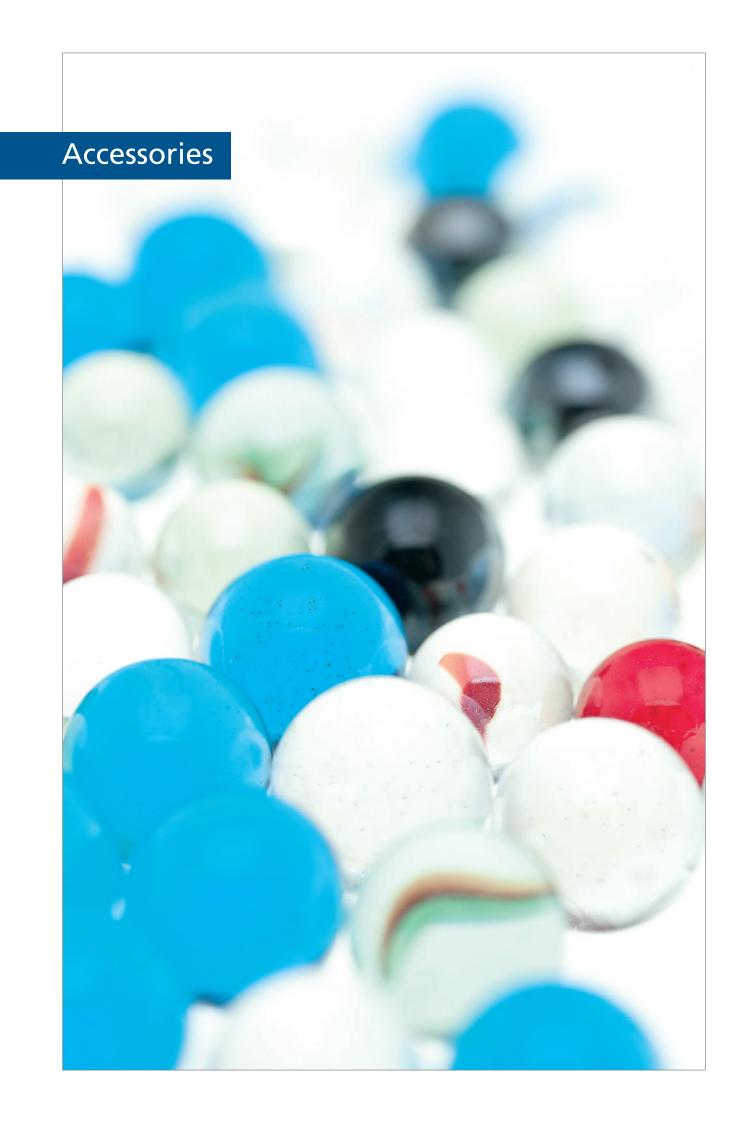
# Fabric Lining for Hand Orthoses Fabric lining for additional cushioning and hygiene

- for item-no. 193P6, 193P7 and 193P8
- style: knitted in one single piece, very elastic
- material: 96 % cotton and 4 % elastane

PU = 1 Set (2 pcs.), applicable for left and right hand









# Hook and Loop Fasteners with deflection-loop and flap

#### Material

- 100 % polyamide
- buckle made of white unbreakable plastic material

#### Characteristics

• the hook- and loop closure system can be riveted or sewn to the work piece quickly and easily

PU = 10 pcs/colour

60T70 - coloured

Size W x L	Colour	Item-No.
25 x 350 mm	blue	60T70/25B
25 x 350 mm	yellow	60T70/25G
25 x 350 mm	red	60T70/25R
25 x 350 mm	black	60T70/25S
25 x 350 mm	white	60T70/25W
30 x 350 mm	blue	60T70/30B
30 x 350 mm	yellow	60T70/30G
30 x 350 mm	red	60T70/30R
30 x 350 mm	black	60T70/30S
30 x 350 mm	white	60T70/30W
38 x 350 mm	blue	60T70/38B
38 x 350 mm	yellow	60T70/38G
38 x 350 mm	red	60T70/38R
38 x 350 mm	black	60T70/38S
38 x 350 mm	white	60T70/38W
50 x 350 mm	blue	60T70/50B
50 x 350 mm	yellow	60T70/50G
50 x 350 mm	red	60T70/50R
50 x 350 mm	black	60T70/50S
50 x 350 mm	white	60T70/50W

#### 60T60 – peach

Size W x L	Colour	Item-No.
25 x 420 mm	caucasian	60T60/25H
30 x 420 mm	caucasian	60T60/30H
38 x 420 mm	caucasian	60T60/38H
50 x 420 mm	caucasian	60T60/50H



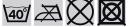
Gesamtlänge 350 mm

Klettbereich 100 mm

145

















### Comfort pad for orthotic fasteners

#### Material

- skin side: polyamide (PA)
- outer side: polyester (PES) and polyvinylchloride (PVC) (blue) or polyester (PES) and polyamide (PA) (black)

#### Characteristics

- the pre-fabricated comfort pad replaces hand-crafted sliding pads for existing strap- and fastener systems
- protects pressure sensitive body areas such as e.g. tibial crest
  embossings for trimming
  suitable for strap widths 25, 30, 38 and 50 mm

- disinfectable

PU = 10 pcs.

Dimensions B x L	Colour	For belt width	Item-No.
65 x 140 mm	black	25, 30 mm	145R14/MS
65 x 140 mm	blue	25, 30 mm	145R14/MB
85 x 180 mm	black	38, 50 mm	145R14/LS
85 x 180 mm	blue	38, 50 mm	145R14/LB

Abdomen – area of the body between chest and pelvis

Abdominal – relating to the abdomen

Abduction – movement of a body part away from the midline of the body

Acetabulum – concave pelvic component of the hip joint receiving the femoral head

Adduction – movement of a body part towards the midline of the body

Alternating – exchanging, altering

Amelia – complete absence of one or several extremities

Anatomy – science of structure of organisms

Anesthesia – loss of feeling or sensation/narcosis

Anterior – front

Anteversion – forward tilt of a body part

Antivarus – against varus malalignment

Aponeurosis – a fibrous sheet of tissue by which certain muscles are attached to bones

Articulation, articulating – a joint, concerning a joint

Atrophy, to atrophy – shrinkage, wastage of biological tissue (e. g. muscle atrophy)

Axilla, axillary – the armpit, relating to the armpit

Bandage, to bandage – wrapping, dressing; sense of: elastic support, applying bandages, taping Biceps – two headed (e. g. biceps muscle)

Bow-leg – varus malalignment of the longitudinal axis of the leg

Calcaneus – heel bone

Capsular – retaining to an articular capsule

Catalyser – chemical agent causing a chemical reaction (e. g. hardening powder, -paste)

Caudal – towards the tail, below, backside

Cerebrum, cerebral – the major part of the brain, occupying the upper part of the cranium, pertaining to the cerebrum

Cervical (cervical-region) – pertaining to the neck area

Chronic – long term (disease; opposite of acute)

Condyle, condylar – joint head, pertaining to the joint head

Congruence, congruent – match, matching, identical

Concave – hollow, curved inwards

Conservative – conciliatory, maintaining, in the sense of non-surgical

Constitution – physical shape

Contraction, to contract – tightening, shortening of soft tissue with joint malposition

Contralateral – reciprocal, located on the other side of the body

Contusion – bruise

Convex – curved to the front or outside

Claw foot – flexion contraction of the toes

Cranial – head, above

Cyst –abnormal, closed sac-like structure within a tissue that contains a liquid, gaseous, or semisolid substance (e. g. Baker's-cyst in the back of the knee)

Decubitus, decubital – pressure damage, pressure sore

Derotation – correctional rotation

Detorsion – back rotation, correctional rotation (e. g. detorsion insole)

Dexter – right

Diagnosis, to diagnose – searching and finding a cause and details of disease

Digital – pertaining to finger or toe

Digitus - finger or toe

Dislocation, dislocate - shift, to shift

Distal – away, away from body

Distorsion – sprained, twisted (e. g. joints)

Dorsal – back side

Duroplast – synthetic material, which is, once it has hardened, not mouldable anymore by heat

Endogenous – caused by inner reasons

Et – and

Exogenous – caused by outer reasons

Extension – stretching, extension of a body part

Extra - beyond

Extremities – limbs

Fascia – covering around muscles and tendons

Femur – bone that extends from the pelvis to the knee

Fixation, fixed – position that cannot be altered passively

Flexion – bending a joint (opposite of extension)

Fracture – break in a bone

Frontal – to the front (front surface)

Gibbus – curve in the spine causing a bump or hump on the back, strong kyphotic spine deformation Gluteus, gluteal – buttocks muscle, pertaining to buttocks

Gocht manoeuvre – special technique to mold the plaster–cast for the ischium bar

Gonarthrosis, gonitis – inflammation of the knee joint

Haematoma – bruise

Hallux – big toe

Hammer toe – flexed contraction position of a toe in the middle or end joint during dorsal tilting of the metacarpophalangeal joint

Heidelberg angle – AFO (ankle foot orthosis to lift the forefoot)

Hemi - half

Heterogenous – mixed combination, disparate

Hinge joint (Articulatio ginglymus) – single-axle joint (e. g. finger joint)

Hyper lordosis – lumbar lordosis, hollow back

Homogenous – uniform, congeneric

Hyper – prefix: more than the norm

Hypo – prefix: less than the norm

Idiopathic – spontaneous, independent, starting without known reason (e. g. idiopathic scoliosis)

Immobilization, to immobilize – to prevent motion of a joint or segment

Incongruity, incongruent – mismatch, mismatched

Incontinence – inability to control urination or defecation

Indication, to indicate – advice, necessity, to advise, make something necessary

Infra – under or below

Initial – beginning

Insert – orthopaedic foot support, foot cushion for customized shoes

Instability, instable - missing stability, loose

Insufficiency, insufficient – functional weakness, inadequate

Interim treatment – temporary, tentative treatment before the final treatment

Irreversible – final, permanently

Ischium, ischial – seat bone, pertaining to the seat bone

Ischium bar – support point of the seat bone in prostheses or ortheses

KBM (abbreviation) – Kondylen Bettung Münster

Knee cap – molded knee brace made of textile rubberlike fabric

Kyphosis – rather flat backward bent scoliosis

Lesion – injury

Level Pelvis – aligned pelvis

Lateral – away from the center

Ligament, ligamentary – band of fibrous tissue connecting bones, concerning the ligaments

Longuette – oblong reinforcing material, usually several layers (e. g. plaster bandage)

Luxation, to luxate – sprain, to sprain

Medial – inside, center, toward the mid-line

Metatarsal – long bones between the tarsal bones and the toes

Modular system – orthopaedic aid or prosthesis construction with various finished components (modular concept)

Morbus – disease, ailment

Naviculare – short term for os naviculare = navicular bone of foot (or hand – scaphoid bone)

Necrosis - necrotic - dead tissue, mortified

Neuropathy, neuropathic – nervous disorder, nervous affection

Oedema, oedematic – swelling, swollen

Orthosis – splint, brace device, corset, support

Orthopaedics – science of recognition and treatment of inherent or acquired defects of the musculoskeletal system (orthos = straight, right and paedia = childhood)

Orthoprosthesis – construction of a proximal orthotic element and a distal prosthetic element

Ossification, osseous – bone formation, bony

Osteomyelitis – infection of bone and bone marrow

Osteosynthesis – connection of two or more bones by means of metal plates, screws, nails or wires

Pad – upholstering device in an orthosis or shoe

Palma, palmar – inner hand surface, pertaining to the inner hand surface

Palpation, to palpate – examination by touching with the hand

Paralysis, paralytic – loss of motor function, lame (only in the sense of limpness)

Paresis, paretic – loss of motor function (limp or spastic)

Patella – kneecap

Pathological – unnatural, abnormal, morbid

Pelvic obliquity – misaligned pelvis, asymmetrical pelvis height (e. g. caused by unequal leg length)

Periphery, peripheral – outer region, outside (e. g. peripheral arterial disease = PAD)

Peroneus, peroneal – retaining to the calf-bone (e. g. nervus peronaeus communis)

Peroneus-spring – ankle-foot orthosis to lift and guide the foot in case of limpness/loss of control

Pes – foot

Pes adductus – forefoot inverted, adducted, medially misaligned forefoot–position

Pes calcaneus – walking on the heel (steep slope position of the forefoot)

Pes cavus – contracted foot (excessive longitudinal arch of the foot)

Pes equinus – pointed foot (excessive plantar flexion of the whole foot)

Pes equinus varus adductus – club foot (combined malposition of the foot)

Pes planus – flat foot (collapsed medial arch)

Pes planus valgus – knock-flat foot (collapsed medial arch with kinked lower ankle joint)

Plantar – pertaining to the foot sole

Poliomyelitis – paralysis caused by the polio virus infecting the anterior horn cells of the spinal cord

Pollex – thumb

Poly – prefix: multi, several Post – prefix: after, behind

Posterior – behind, toward the back of...

Postoperative post op – after surgery

Pre – prefix: before, prior to

Pressure lesion – surface damage of skin and tissue due to extensive pressure exposure

Prevention – precaution

Prognosis, prognostic – preview, expected

Progredience, progredient – progression (of disease), advancing

progressive – advancing

Prominence, prominent – protrusion, protruding

Pronation – rotation of hand or foot in long axis facing outwards or dorsally

Prophylaxis, prophylactic – prevention, preventive

Prosthesis – externally applied device used to replace wholly, or in part, an absent or deficient limb segment

Proximal – nearest to the trunk; towards the trunk

Pseudo arthrosis – non-union of a fractured bone

PTB – (abbrevation) – patella tendon bearing = patella tendon – load principle

PTS – (abbrevation) – PTB–supracondylar prosthesis = lower leg prosthesis, reaching over femurcondyles

Quadriceps – short for Musculus quadriceps = four headed muscle in the anterior thigh Quengel Hinged Brace – joint bending or stretching brace with hinges

Radius – spoke bone, one of the forearm bones

Recidivism, recidiving – relapse, recurrence (of a disease), relapsing

Reclination, to reclinate – backward tilt, to tilt backwards

Redression, to redress - to force or bend back

Rehabilitation, to rehabilitate – enabling persons with disabilities to reach and maintain their optimal sensory, intellectual, psychiatric and/or social functional levels

Retroversion – backward turn

Reversible – convertible

Rotation, to rotate – turn, turning

Sagittal – following the arrow, straight direction

Saddle joint (articulatio sellaris) – double-axis joint (e. g. thumb saddle joint Carpometacarpal-l-joint)

Shore-hardness – measuring unit for the degree of hardness of elastic materials

Sinister – left

Scoliosis, scoliotic – lateral deviation of the spine and rotation of the vertebrae around the long axis of the spine

Spasticity, spastic – cramping, cramped

Spina, spinal – referring to the spine (vertebral column)

Spondyle – retaining to the spine (e. g. spondyle arthrosis = arthrosis of the vertebral joints)

Subductus – laying underneath (e. g. digitus subductus = toe, laying crossed underneath)

Subluxation – partial dislocation of a joint

Superductus – laying over (e. g. digitus sperductus = toe, laying over dorsally)

Supination – rotation of hand or foot around long axis with palm forward or foot inward

Supination wedge – medial or inner elevation of an orthopaedic insole

Supra – prefix: upper, above

Swiss cam lock / Swiss lock system – detention of a splint joint (e. g. of an orthotic brace)

Symphysis – pubic symphysis, midline cartilaginous pubic bone connection (synchondrosis)

Symptom, symptomatic – sign, Indication of a disease, indicating a disease

Syndesmosis – slightly movable articulation where the contiguous bony surfaces are united by an interosseous ligament

Syndrome – disease pattern

Synostosis – bony fusion between two bones

Talus – bone that articulates with the tibia and fibula to form the ankle joint

Tarsus, tarsal – heel part of the foot, pertaining to the heel part of the foot

Thermoplast – plastic material re-shapeable under heat application

Three–point–correction principle – correctional therapy by leverage effect with surface pressureapplication at three contact points

Thomas splint – a long leg relief splint that extends from a ring at the hip to beyond the foot,

e. g. for aseptic hip joint necrosis

Tonus – tension condition of muscles

Torsion – twisting

Trochanter – muscle insertion point, bony protrusion lateral-proximally at the femur

Tuber – hunch, knob (e. g. tuber ischiadicum)

Tuberosity – bony protrusion, muscle insertion/fixation point

Ulna – inner and longer of the two bones of the forearm

√ Valgus – X-shaped joint alignment

Varicosis – disease of the veins, varication

Varices – distended veins

Varus – O-shaped joint alignment

Ventral – relating to or situated on or close to the abdomen; abdominal, front

Vertex – centre of a curve, maximum of a curve

Volar – relating to the palm of the hand

V2A-steel – stainless steel



Walking – milling, softening, staking e. g. orthopaedic leather

Source: "Children's orthopaedic techniques by R. Bernbeck, J. Pramschiefer, H. D. Stolle", published by Thieme, Stuttgart

## **Explanation of Symbols**

#### **Textile Care Symbols**



Hand wash



30 °C delicates - reduce fill quantity one third



30 °C normal wash



40 °C normal wash



60 °C normal wash



95 °C normal wash



Ironing with two dots – approx. 150 °C



Do not iron



Do not bleach



No dry cleaning



Low-temperature dry



Do not tumble dry



Spray disinfection

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