ottobock.

NeuroOrthopedics – Kids

Medical devices for children

Our objective

Our objective is to provide you as a fitting provider/service provider with the best possible resources so that you are in a position to offer and adapt useful and effective medical devices for your patients – in this case children.

Laughing, playing and being happy together – social interaction is essential for everyone. Our services and medical devices help children and parents reduce stress and be more relaxed in their daily lives.

A challenge for suppliers, fitting providers and therapists.
Because it is up to us to meet the technical and therapy requirements for social interaction with the best medical devices. So that children can learn and communicate with others at eye level right from the beginning, actively exploring and shaping their environment.

Mobilisation is an indispensable requirement here. The more mobile the child, the easier communication with peers will be. Medical devices that actively support achieving an upright position against the force of gravity – verticalisation – promote independent sitting, straightening up and moving about by the child. They also reinforce therapeutic progress and help with further development.

Medical devices have to be measured against their promotion of mobility and their suitability for everyday use. Compliance in the sense of acceptance of the medical device plays a special role here. Often it is more of a challenge to convince parents to use a medical device, while children follow their natural curiosity, which makes them less critical users. This makes it all the more important for industry and trade to be closely linked, supporting each other with ideas and assistance for choosing the right products.

Ottobock guiding principles

1 Promoting personal initiative
Our medical devices assist the child only as much as necessary. They support and hold, promote and challenge so the child can become active on his or her own.

2 Creating opportunity for participation (inclusion)
Our medical devices promote social integration and help the child actively explore his or her environment.

3 Meeting the needs of the individual child
Our medical devices adapt to the child, not the other way around. Individual adaptation is essential for meeting the specific requirements of the child.

4 Comfortable and pleasant
Our medical devices are as comfortable as possible. Their fit and design are based on individual requirements.

5 Supporting therapy
Our medical devices are focused on the therapy objectives. They promote these objectives, even during everyday activities.

6 Multiple benefits
Our medical devices are designed to make the lives of children easier – as well as those of their parents, attendants and therapists. This is why we involve them in the development of our products.

7 Making life easier
Our medical devices are designed for everyday use. They are easy to use and (whenever possible) also easy to transport.

Design according to the requirements
Our medical devices are designed and optimised according to the indications and requirements of the child. The design has to meet the functional requirements, but is nevertheless tailored to the needs of children.

Up to date
Ottobock conducts extensive research and supports the scientific community. We incorporate new insights into the development of our products and services. Our claim is to be an innovation leader at the cutting edge of research. In order to realise this, we need your experience with our products so these insights can be incorporated into our medical devices.

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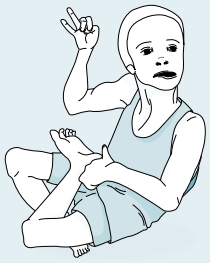
CO-RE

Sensorimotor problems

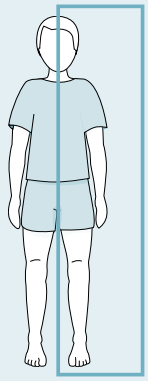


Athetosis

This movement disorder is marked by exaggerated, involuntary movements.

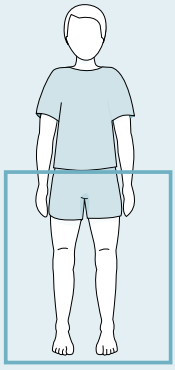
Appearance

- Muscle tension fluctuates between hypotonic and hypertonic
- Movements are uncontrolled, writhing and bizarre



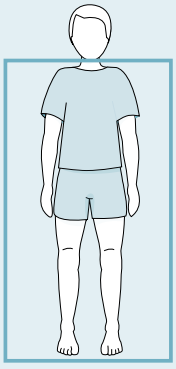
Hemiparesis

Movement disorder affecting **one side of the body**.



Diparesis

Movement disorder that affects mainly the **lower limbs**. However, the upper limbs and the trunk may also be affected to varying degrees.



Tetraparesis

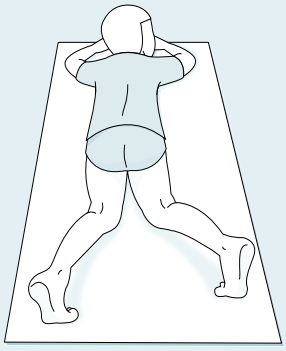
Movement disorder that affects **all four limbs** and the trunk.

Secondary orthopedic problems

Secondary orthopedic problems of cerebral palsy depend on the severity of the clinical symptoms and occur frequently. Causes include continuous, abnormal posture and movement patterns resulting from problems with muscle tone, trunk stabilisation and symmetry.
Secondary orthopedic problems must be diagnosed accurately and taken into consideration when prescribing a device. For example, contractures and hip luxations can be very painful and result in increased muscle tension.

Contractures

A contracture is the shortening of muscles, tendons or ligaments in a joint. This limits movement or leads to complete stiffness.
In children with cerebral palsy, the increased tonicity in the limbs causes shortening of certain muscles depending on the degree of severity and may thus lead to permanent contractures.
These contractures can have a negative effect on – or even prevent – functions such as sitting, standing and walking.



Adduction contracture

Appearance
- Abduction (moving away from the body) is no longer possible
- Typical position of the hips for adduction/internal rotation

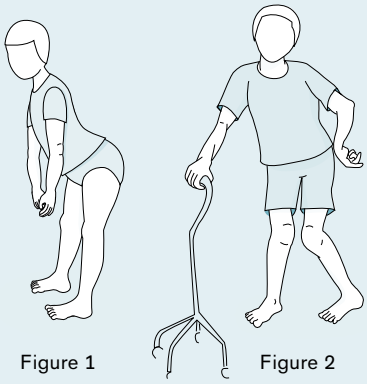
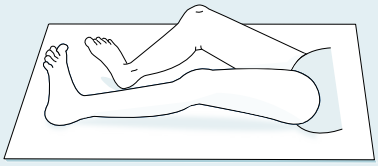


Figure 1 Figure 2

Hip flexion contracture

Appearance
- Hip extension is not possible
- Compensated for while standing by hip flexion and internal rotation while extending the knee (see Figure 1) or hip extension and internal rotation while flexing the knee (see Figure 2)

Secondary orthopedic problems



Knee flexion contracture

Appearance
- Knee flexion posture
- Knee extension is not possible

Congenital pes equinus

Acquired pes equinus

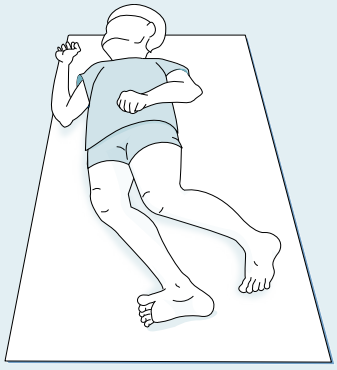
Pes equinus

Appearance
- Foot deformity, in which the heel does not contact the ground, and the load is on the forefoot
- Compensated for while standing by knee flexion or hip extension with hyperlordosis (swayback)
- Without treatment, the deformity becomes fixed, which makes standing and walking more difficult because the weight-bearing area is reduced

Pes valgus (flat foot)

Appearance
- Flattened arch, heel leans to the side
- Depending on the degree of severity, treatment with arch supports, orthoses or surgery may be recommended

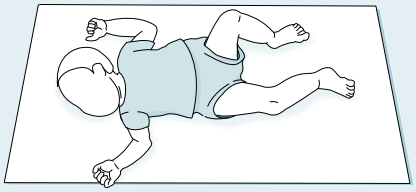
Secondary orthopedic problems



Windswept deformity

Appearance
- Posture-related leaning of the legs to one side due to differences in muscle tone and symmetry on the two sides
- This results in progressive asymmetry of the entire body

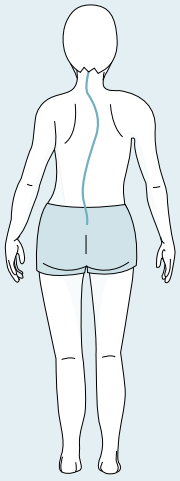
i **If the increasing asymmetry is not addressed early, in addition to windswept deformity, secondary orthopedic problems may arise such as:** hip luxation, joint contractures, and scoliosis (abnormal curvature of the spine)



Asymmetry

Many children with cerebral palsy suffer from limited stability of the trunk and low muscle activity in the trunk (hypotonic trunk) as well as asymmetric movements. This frequently leads to malposition in the affected children. The child may also develop an asymmetry due to inadequate support from the medical device or from an inappropriate fitting.

Appearance
- This situation arises due to asymmetrical tonicity, movement, spasticity, pain or the continued occurrence of pathological reactions and reflexes
- Unilateral hearing or vision
- Uneven growth of the limbs
- Idiopathic (no obvious cause) scoliosis can lead to asymmetric movement or posture



Scoliosis (abnormal curvature of the spine)

Scoliosis is a common secondary condition of cerebral palsy or muscular dystrophy, as limited trunk stability, low tonicity in the trunk and asymmetric movement can occur in these diseases.
If the condition is diagnosed early, the treatment options and prognosis are good.

Appearance
- The spine is curved to the side and the vertebrae are rotated. The spine is no longer able to assume an upright position or be straightened
- One shoulder is higher than the other or a shoulder blade projects dorsally
- The ribs may protrude or the child may have a "hump"

Hemiparesis / Hemiplegia

17AD1 / 17AF2
multifunction system
ankle joint
Page 36

17AF10 X-ible
Page 34

17F34 / 17F24
joint bar for children
Page 33

17CF1
Carbon Ankle seven
Page 30

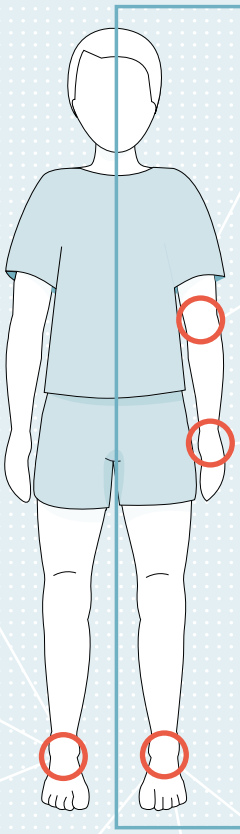
28U25 WalkOn
Reaction junior
Page 16

17LA3N unilateral
system ankle joint
Page 18

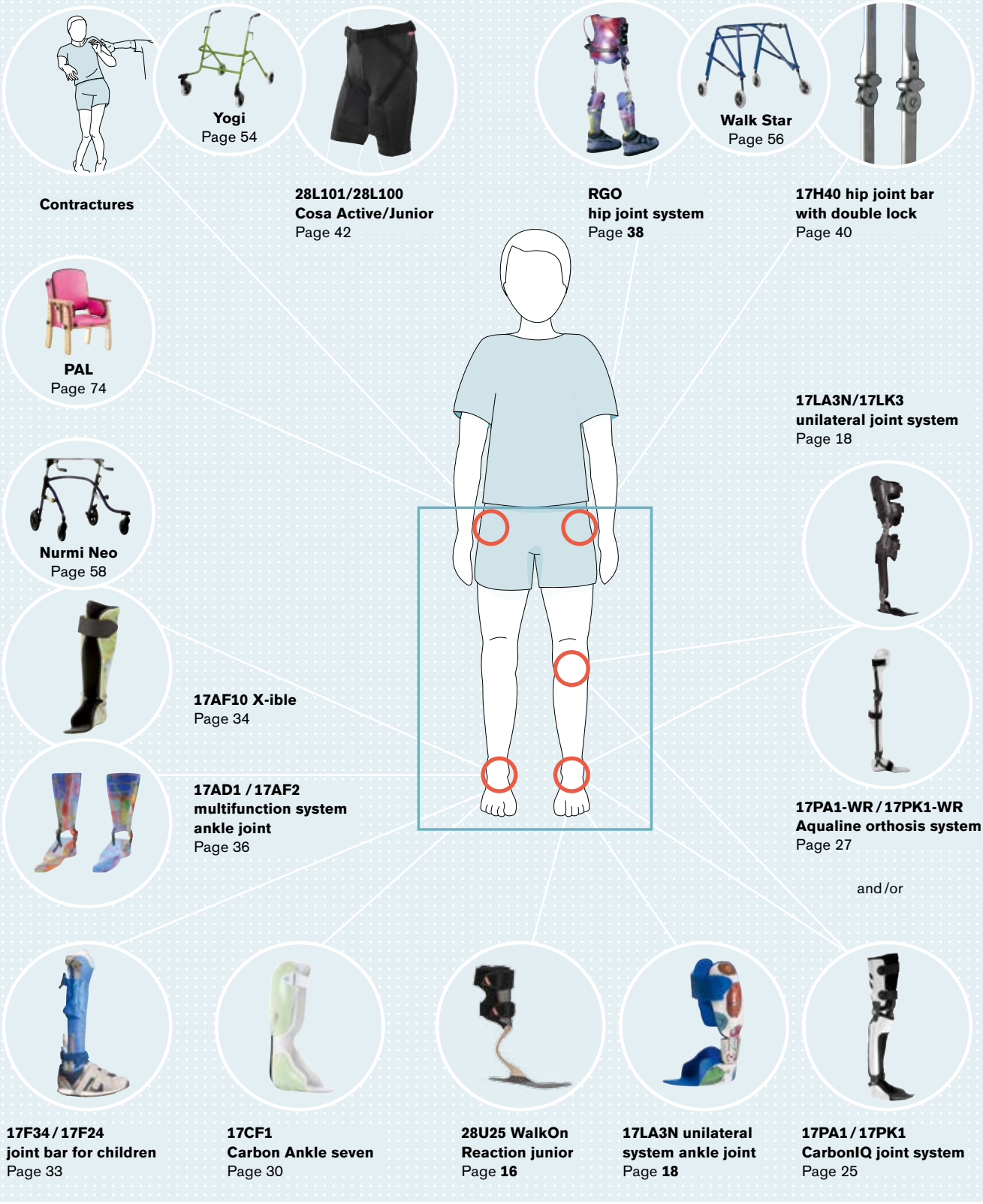
16X4 arm bar
Page 46

16X12
elbow joint bars
Page 44

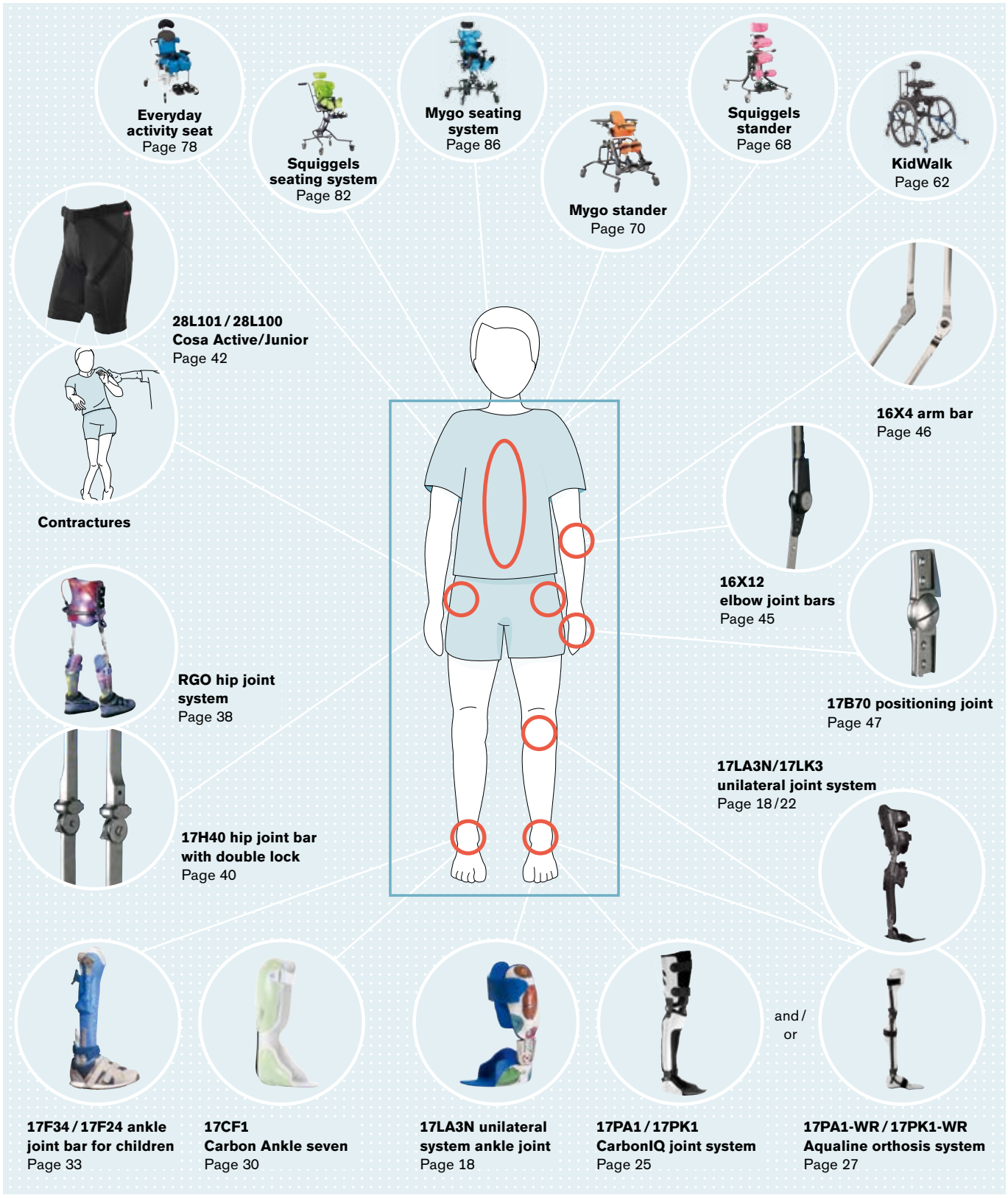
17B70
positioning joint
Page 47



Diparesis / Diplegia



Tetraparesis / Tetraplegia

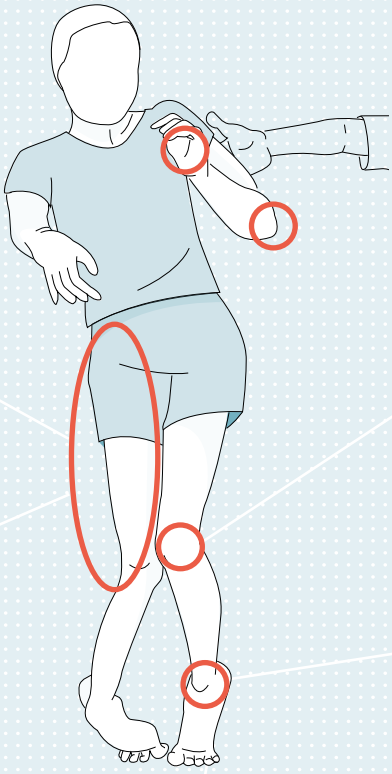


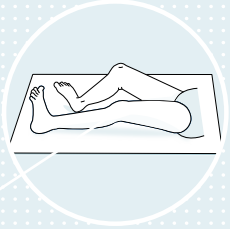
Contractures

17BK1 correction system joints
Page 48

17BK2 correction system joints, dynamic unit
Page 48

Scissor gait





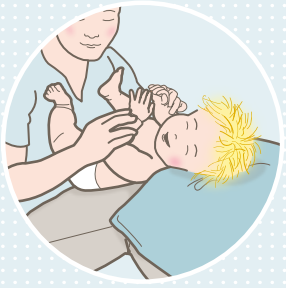
Contracture of the knee flexors

28L101/28L100 Cosa Active/Junior
Page 42

Congenital and acquired pes equinus

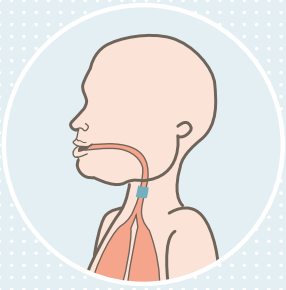
Pes valgus

Lying supports 0 – 5 years

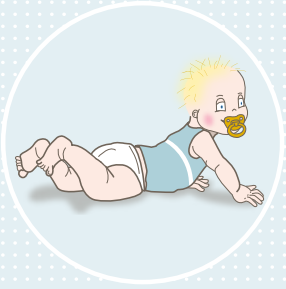


2 Helps make contact and promotes awareness

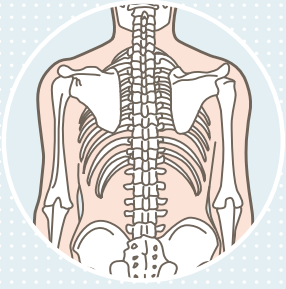
3 Activates body perception



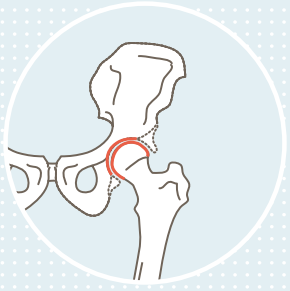
4 Improves the swallowing process and food intake



1 Supports head-trunk alignment in the middle of the body, develops head-trunk stability



5 Prevents secondary orthopedic problems (hip damage, scoliosis, joint malposition)



6 Facilitates formation of the hip joint in early development

EAS
Young children
0 – 36 months, Page 94

AFO – dynamic ankle foot orthosis

28U25 WalkOn Reaction junior

It`s so dynamic!

The WalkOn Reaction junior is based on the WalkOn Reaction plus and thus has the same good dynamic properties as a dynamic ankle foot orthosis and the inconspicuous, slim design – but is geared towards children.

How it works
- Supports lifting the foot
- Promotes dynamic rollover
- Increases the stride length by improving muscle dynamics
- Promotes exterior rotation of the foot at heel strike
- Promotes a physiological gait pattern
- Reduces the risk of falling

Application
- Cerebral palsy
- For dorsiflexor weakness, without or with mild to moderate spasticity
- Hemiparesis, diparesis

Special features
- Highly dynamic properties (use of ground reaction force) for better control while walking
- High level of wearer comfort due to low weight, open heel and the anatomically designed frontal support element
- Can be worn with sturdy standard shoes
- Shin pad made of climate-regulating material for improved skin hygiene; all textile parts are washable and replaceable
- Combination with additional dynamic ankle foot orthoses (DAFOs) possible

Our recommendation
The WalkOn Reaction junior can be combined with the following for bilateral fitting:
· 28L100 Cosa Junior
· 28L101 Cosa Active

A FIT KIT (28T5) is available for the WalkOn Reaction junior, as it is for the other products in the WalkOn line.

Art.-No. 28U25

Order no.: Article number=side & shoe size |
Example for ordering: 28U25=L24-27

Side	Shoe size	Height (cm)
L/R	24–27	20,5
L/R	27–30	24,5
L/R	30–33	27
L/R	33–36	29,4

Spare parts for 28U25

Pad

Article number	Size	Shoe size
29U24	L/R	24–27
	L/R	27–30
	L/R	30–33
	L/R	33–36

Pad

Y hook-and-loop

Article number	Size
29U25=2	2
29U25=3	3

Y hook-and-loop

Optional accessories

Magnetic closure

Article number	
514Z8=20-7	for 2 cm wide straps
514Z8=30-7	for 3 cm wide straps
514Z8=40-7	for 4 cm wide straps
514Z9=40-7	Slider – for 4 cm long straps

Magnetic closure

AFO – the unilateral joint system
Modular and multifunctional

17LA3N unilateral ankle joint

Small, light and versatile

The 17LA3N unilateral ankle joint is a multifunction system ankle joint with a foot-lifting effect. Various combination possibilities allow it to be quickly adjusted to the individual user's needs at any time. Its weight classification permits unilateral use for a patient weight of up to 110 kg (242 lbs) and bilateral use for up to 160 kg (353 lbs). Despite its multifunctional features it is small, light and inconspicuous – truly versatile.

Application

Partial or total paralysis of the leg muscles. Indications must be determined by the physician.

Besondere Merkmale

- Integrated joint system in 5 sizes, suitable for both children and adults
- Damped stop for significantly less noise
- Reduced weight due to lightweight construction
- Can be used for prepreg and lamination resin techniques
- Temporary switch for releasing the joint, e.g. for training on a therapeutic bike, is included in the scope of delivery
- Weight classification for unilateral and bilateral use simplifies the selection of the joint size
- Lamination/prepreg dummy included in the scope of delivery
- Titanium or steel versions
- Improved ease of service
- Exclusive use of Torx screws

Article number	System width	Max. body weight	Material	Qty.
17LA3N=10	10	15 kg (33 lbs) (unilateral)/ 22kg (49 lbs) (bilateral)	Steel	piece(s)
17LA3N=10-T	10	15 kg (33 lbs) (unilateral)/ 22kg (49 lbs) (bilateral)	Titanium	piece(s)
17LA3N=12	12	20 kg (44 lbs) (unilateral)/ 40 kg (88 lbs) (bilateral)	Steel	piece(s)
17LA3N=12-T	12	20 kg (44 lbs) (unilateral)/ 40 kg (88 lbs) (bilateral)	Titanium	piece(s)
17LA3N=14	14	50 kg (110 lbs) (unilateral)/ 80 kg (176 lbs) (bilateral)	Steel	piece(s)
17LA3N=14-T	14	50 kg (110 lbs) (unilateral)/ 80 kg (176 lbs) (bilateral)	Titanium	piece(s)
17LA3N=16	16	85 kg (187 lbs) (unilateral)/ 120 kg (265 lbs) (bilateral)	Steel	piece(s)
17LA3N=16-T	16	85 kg (187 lbs) (unilateral)/ 120 kg (265 lbs) (bilateral)	Titanium	piece(s)
17LA3N=20	20	110 kg (243 lbs) (unilateral)/ 160 kg (353 lbs) (bilateral)	Steel	piece(s)
17LA3N=20-T	20	110 kg (243 lbs) (unilateral)/ 160 kg (353 lbs) (bilateral)	Titanium	piece(s)

- When using the product unilaterally, the next higher size must be used in cases where there is flexion contracture in the knee or hip greater than 10°; or distinct torsion or valgus/varus instabilities; or increased physical activity!
- For tubercle seat or valgus/varus malpositions greater than 10°, the product must be fitted bilaterally.

Our recommendation

The unilateral joint system can be combined with

- Nurmi Neo
- Walk Star
- Yogi (for hemiparesis)
- KidWalk (for diparesis)

Accessories

17LF3N foot stirrup for unilateral ankle joints

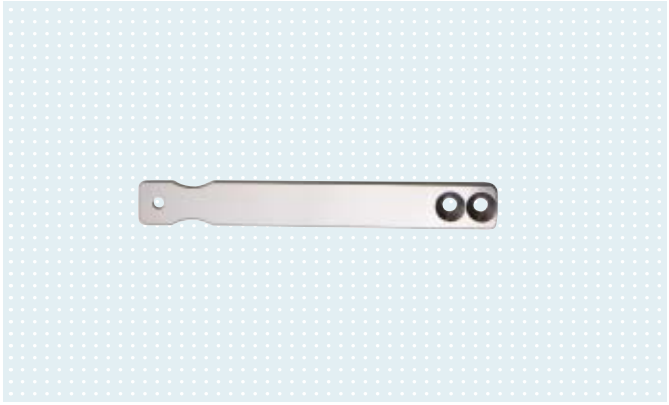
Freely moveable foot stirrup with up to 20° plantar flexion and dorsal extension. Only in combination with the 17LA3N=* ankle joint.

Article number	for	Material	Qty.
17LF3N=10	17LA3N=10	Stainless steel	piece(s)
17LF3N=12	17LA3N=12	Stainless steel	piece(s)
17LF3N=14	17LA3N=14	Stainless steel	piece(s)
17LF3N=16	17LA3N=16	Stainless steel	piece(s)
17LF3N=20	17LA3N=20	Stainless steel	piece(s)

17LF3N foot stirrup for unilateral ankle joints

17LS3 lamination bar for unilateral joint system

Article number	Length	Width	Material	Qty.
17LS3=10	80 mm	10 mm	Stainless steel	piece(s)
17LS3=10-T	80 mm	10 mm	Stainless steel	piece(s)
17LS3=12	80 mm	12 mm	Stainless steel	piece(s)
17LS3=12-T	80 mm	12 mm	Stainless steel	piece(s)
17LS3=14	100 mm	14 mm	Stainless steel	piece(s)
17LS3=14-T	100 mm	14 mm	Stainless steel	piece(s)
17LS3=16	130 mm	16 mm	Stainless steel	piece(s)
17LS3=16-T	130 mm	16 mm	Stainless steel	piece(s)
17LS3=20	130 mm	20 mm	Stainless steel	piece(s)
17LS3=20-T	130 mm	20 mm	Stainless steel	piece(s)



17LF3 foot stirrup for unilateral ankle joints

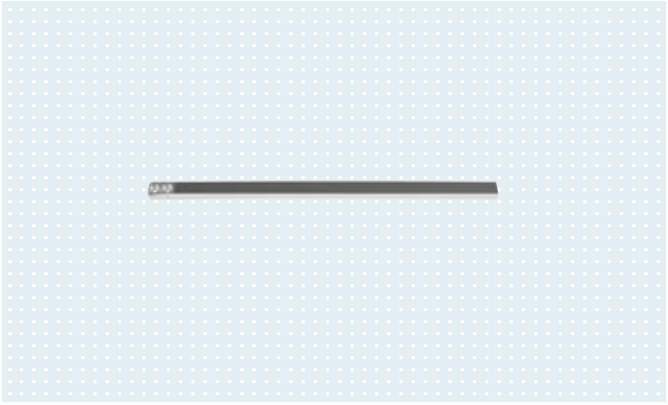
17LD1N lamination dummy for unilateral ankle joint incl. shoulder screw

Article number	for	Material	Qty.
17LD1N=10	17LA3N=10	Stainless steel	piece(s)
17LD1N=12	17LA3N=12	Stainless steel	piece(s)
17LD1N=14	17LA3N=14	Stainless steel	piece(s)
17LD1N=16	17LA3N=16	Stainless steel	piece(s)
17LD1N=20	17LA3N=20	Stainless steel	piece(s)

17LD1 lamination dummy for unilateral ankle joint incl. shoulder screw

17LV3 side bar for unilateral joint system

Article number	Length	Width	Thickness	Material	Qty.
17LV3=12	270 mm	12 mm	7 mm	Stainless steel	piece(s)
17LV3=14	270 mm	14 mm	7 mm	Stainless steel	piece(s)
17LV3=16	400 mm	16 mm	8 mm	Stainless steel	piece(s)
17LV3=20	470 mm	12 mm	8 mm	Stainless steel	piece(s)



17LV3 side bar for unilateral joint system

702B11 hole gauge

Article number	Material	Used for
702B11	tool steel	17LA3N, 17LK3

17LK3 unilateral knee joint

Lightweight and proven

The 17LK3 unilateral knee joint is a system knee joint with wedge lock. It is particularly attractive due to its lightweight construction. Its weight classification permits unilateral use for body weight up to 110 kg (243 lbs) and bilateral use for up to 160 kg (353 lbs). The system is suitable for prepreg and lamination resin techniques. The scope of delivery includes a temporary switch for releasing the joint (such as for training on a therapy bike).

Application

Partial or total paralysis of the leg muscles. Indications must be determined by the physician.

Special features

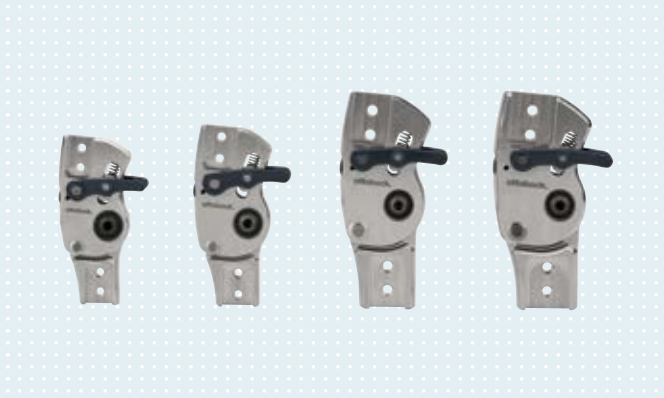
- Integrated joint system in 4 sizes, suitable for both children and adults
- Reduced weight due to lightweight construction
- Can be used for prepreg and lamination resin techniques
- Temporary switch for releasing the joint, e.g. for training on a therapeutic bike, is included in the scope of delivery
- Weight classification for unilateral and bilateral use simplifies the selection of the joint size
- Lamination/prepreg dummy included in the scope of delivery
- Titanium or steel versions

17LK3 unilateral knee joint

System knee joint with wedge lock

Article number	Side	System width	Max. body weight	Material	Qty.
17LK3=L12	left	12 mm	20 kg (44 lbs)/ 40 kg (88 lbs)*	Steel	piece(s)
17LK3=L12-T	left	12 mm	20 kg (44 lbs)/ 40 kg (88 lbs)*	Titanium	piece(s)
17LK3=R12	right	12 mm	20 kg (44 lbs)/ 40 kg (88 lbs)*	Steel	piece(s)
17LK3=R12-T	right	12 mm	20 kg (44 lbs)/ 40 kg (88 lbs)*	Titanium	piece(s)
17LK3=L14	left	14 mm	50 kg (110 lbs)/ 80 kg (176 lbs)*	Steel	piece(s)
17LK3=L14-T	left	14 mm	50 kg (110 lbs)/ 80 kg (176 lbs)*	Titanium	piece(s)
17LK3=R14	right	14 mm	50 kg (110 lbs)/ 80 kg (176 lbs)*	Steel	piece(s)
17LK3=R14-T	right	14 mm	50 kg (110 lbs)/ 80 kg (176 lbs)*	Titanium	piece(s)
17LK3=L16	left	16 mm	85 kg (187 lbs)/ 120 kg (265 lbs)*	Steel	piece(s)
17LK3=L16-T	left	16 mm	85 kg (187 lbs)/ 120 kg (265 lbs)*	Titanium	piece(s)
17LK3=R16	right	16 mm	85 kg (187 lbs)/ 120 kg (265 lbs)*	Steel	piece(s)
17LK3=R16-T	right	16 mm	85 kg (187 lbs)/ 120 kg (265 lbs)*	Titanium	piece(s)
17LK3=L20	left	20 mm	110 kg (243 lbs)/ 160 kg (353 lbs)*	Steel	piece(s)
17LK3=L20-T	left	20 mm	110 kg (243 lbs)/ 160 kg (353 lbs)*	Titanium	piece(s)
17LK3=R20	right	20 mm	110 kg (243 lbs)/ 160 kg (353 lbs)*	Steel	piece(s)
17LK3=L20-T	right	20 mm	110 kg (243 lbs)/ 160 kg (353 lbs)*	Titanium	piece(s)

* with bilateral use



17LK3 in four different sizes

Option:
temporary switch
17Y162=* is an additional option that can also be installed later into the knee joint. It enables the knee joint to be set to a temporary, open position, e.g. for training on a therapeutic bike. The temporary switch is included in the scope of delivery.

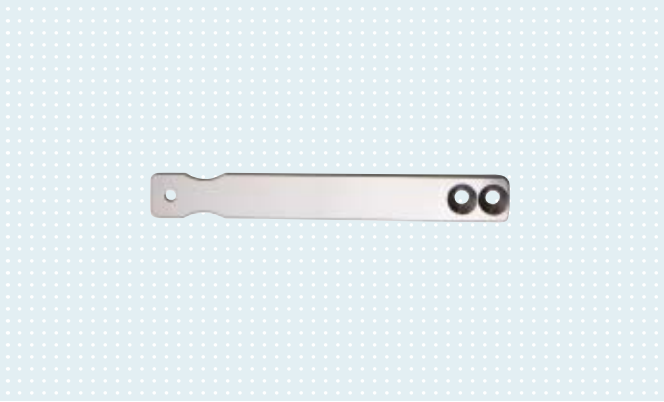
17Y162 temporary switch for unilateral joint system

- When using the product unilaterally, and in cases of flexion contracture in the knee or hip > 10°, or distinct torsion or valgus/varus instabilities, or valgus/varus malpositions, or increased physical activity, the next higher size must be used!
- For tubercle seat the product must be fitted bilaterally

Accessories

17LS3 lamination bar for unilateral joint system

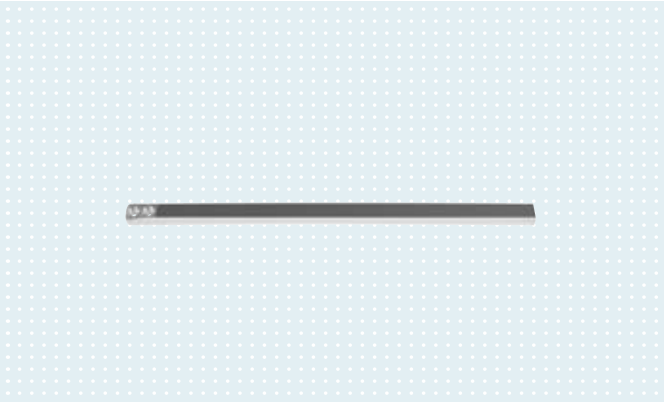
Article number	Length	Width	Thickness	Material	Qty.
17LS3=12	80 mm	12 mm	5 mm bottom, 3 mm top	Stainless steel	piece(s)
17LS3=12-T	80 mm	12 mm	5 mm bottom, 3 mm top	Stainless steel	piece(s)
17LS3=14	100 mm	14 mm	6 mm bottom, 2.5 mm top	Stainless steel	piece(s)
17LS3=14-T	100 mm	14 mm	6 mm bottom, 2.5 mm top	Stainless steel	piece(s)
17LS3=16	130 mm	16 mm	6 mm bottom, 3 mm top	Stainless steel	piece(s)
17LS3=16-T	130 mm	16 mm	6 mm bottom, 3 mm top	Stainless steel	piece(s)
17LS3=20	130 mm	20 mm	6 mm bottom, 3 mm top	Stainless steel	piece(s)
17LS3=20-T	130 mm	20 mm	6 mm bottom, 3 mm top	Stainless steel	piece(s)



17LS3 lamination bar for unilateral joint system

17LV3 side bar for unilateral joint system

Article number	Length	Width	Thickness	Material	Qty.
17LV3=12	270 mm	12 mm	7 mm	Stainless steel	piece(s)
17LV3=14	270 mm	14 mm	7 mm	Stainless steel	piece(s)
17LV3=16	400 mm	16 mm	8 mm	Stainless steel	piece(s)
17LV3=20	470 mm	12 mm	8 mm	Stainless steel	piece(s)



17LV3 side bar for unilateral joint system

CarbonIQ joint system

Experience progress

The CarbonIQ joint system uses a proven technical thermoplastic strengthened with carbon fibre. Thus the benefits of plastic and carbon are unified to form an innovative, high-quality material combination for knee and ankle joints.

17PA1 CarbonIQ ankle joint

17PA1 CarbonIQ ankle joint

Special features

- Ankle joint with nine different adjustment and combination possibilities
- Functionality not impaired by splashed water
- Lightweight
- Used and supplied in pairs
- Splint width 14 mm for children, splint width 20 mm for adults

Article number	Side	Max. body weight	Material	Qty.
17PA1=14	left, right	45 kg	Fibre-reinforced plastic	Pair
17PA1=20	left, right	100 kg	Fibre-reinforced plastic	Pair

Accessories

17PF1 foot stirrup

Article number	for	Material	Qty.
17PF1	17PA1=20	Stainless steel	piece(s)
17PF1=14	17PA1=14	Stainless steel	piece(s)

Our recommendation

The CarbonIQ ankle joint can be combined with:

- 17PK1 Carbon IQ knee joint

17PK1 CarbonIQ knee joint

Special features

- Concealed lock with pull-release cable for a high level of safety
- User-friendly
- Lightweight
- Functionality not impaired by splashed water
- Used and supplied in pairs
- Splint width 14 mm for children, splint width 20 mm for adults

17PK1 CarbonIQ knee joint

Medial and lateral joint, straight

Article number	Max. body weight	Material	Qty.
17PK1=14	45 kg	Plastic reinforced with carbon fibre	Pair
17PK1=20	100 kg	Plastic reinforced with carbon fibre	Pair

Medial joint contoured, lateral joint straight

Article number	Side	Max. body weight	Material	Qty.
17PK1=L14	left	45 kg	Plastic reinforced with carbon fibre	Pair
17PK1=R14	right	45 kg	Plastic reinforced with carbon fibre	Pair
17PK1=L20	left	100 kg	Plastic reinforced with carbon fibre	Pair
17PK1=R20	right	100 kg	Plastic reinforced with carbon fibre	Pair

Our recommendation
The CarbonIQ knee joint can be combined with:
- 17PA1 Carbon IQ ankle joint

Aqualine orthosis system

The solution for wet areas

It is important for children to learn to swim, to participate in water aerobics if necessary, and to be able to shower independently when they are at home or travelling. That`s why the Aqualine orthosis system is also available in a children`s version (size 14 mm splint width).

The waterproof versions of the CarbonIQ knee and ankle joints form the heart of the Aqualine. The individual components are resistant to corrosion; chlorine, salt water and soap do not impair their functionality.

1 17PK1=*-WR waterproof CarbonIQ knee joint with wedge lock

Article number	Side	Max. body weight	Material	Qty.
17PK1=L14	left	45 kg	Plastic reinforced with carbon fibre	Pair
17PK1=R14	right	45 kg	Plastic reinforced with carbon fibre	Pair
17PK1=L20	left	100 kg	Plastic reinforced with carbon fibre	Pair
17PK1=R20	right	100 kg	Plastic reinforced with carbon fibre	Pair

- For waterproof walking aids
- Concealed lock with pull-release cable for a high level of safety
- User-friendly
- Lightweight
- Used and supplied in pairs
- 20 mm splint width for adults, 14 mm splint width for children

2 17PA1=*-WR waterproof CarbonIQ ankle joint

Article number	Side	Max. body weight	Material	Qty.
17PA1=14	left, right	45 kg	Fibre-reinforced plastic	Pair
17PA1=20	left, right	100 kg	Fibre-reinforced plastic	Pair

- For waterproof walking aids
- Ankle joint with nine different adjustment and combination possibilities
- Lightweight
- Used and supplied in pairs
- 20 mm splint width for adults, 14 mm splint width for children

Our recommendation

- All components in a waterproof walking aid should be waterproof and easy to wash
- We generally recommend the use of a full-surface non-skid sole or a bathing shoe, as well as the use of a knee joint with lock
- We recommend the use of antibacterial materials
- The waterproof walking aid should minimise skin contact

3 Loop strap

Article number	Length	Material	Colour	Qty.
170Z4=400-7	400 mm	Polyamide	black	piece(s)
170Z4=600-7	600 mm	Polyamide	black	piece(s)

4 Aluminium bar

Suitable for fabricating system splints, with rounded edges, strength approx. 400 N/mm²

Article number	Length	Width	Thickness	Qty.
605P8=14	2.000 mm	14 mm	5 mm	piece(s)
605P8=20	2.000 mm	20 mm	5 mm	piece(s)

5 Antibacterial ThermoLyn

Polypropylene homopolymer

Article number	Length	Width	Colour
616T420=5	2.000 mm	5 mm	Natural colour
616T420=6	2.000 mm	6 mm	Natural colour

6 Stainless steel screw

Suitable for fabricating system splints, with rounded edges, strength approx. 400 N/mm²

Article number	Qty.
501S84=M4x8	piece(s)

7 Foot stirrup

Article number	for	Material	Qty.
17PF1	17PA1=20	Stainless steel	piece(s)
17PF1=14	17PA1=14	Stainless steel	piece(s)

8 Foot component

Article number	Side	Size	Material	Qty.
29F18=L	left	37–40 40–43 43–46	Rubber plate with crepe profile	piece(s)
29F18=R	right	37–40 40–43 43–46	Rubber plate with crepe profile	piece(s)

AFO – dynamic components

17CF1 Carbon Ankle seven

How it works
The carbon springs are designed to initiate extension moments of the hip and knee during walking, and thus achieve extension and knee stability in the lower limbs. The energy generated during heel strike is stored in the carbon matrix and returned at toe-off. In contrast to conventional ankle foot orthoses, the limits in the plantar and dorsal direction are dynamic and without static restriction.

Application
Paralysis or weakness/restriction
- of the foot lifting and foot lowering muscles while using a dynamic ankle foot orthosis (DAFO),
- of the knee extensors while using a knee ankle foot orthosis (KAFO) with locked knee joint.
  Diseases such as spina bifida or poliomyelitis are commonly indicated.

Special features
- Positive influence on the gait pattern
- Very lightweight design
- 7° outward rotation supports physiological alignment of the foot
- Classification for straightforward product selection
- Suitable for thermoplastic and laminated orthoses

Selecting and ordering

The Carbon Ankle seven is selected on the basis of the user's body weight and activity level.

- Normal activity:
  A normally active user participates in all everyday activities independently and also performs simple tasks.

- High level of activity:
  A highly active user is unrestricted in everyday life. The orthosis of a highly active user must support quick changes from walking to running and vice versa, for example, for those doing sports or for children.

Article number	Max. body weight (normal activity level)	Max. body weight (high activity level)	Spring width	Qty.
17CF1=L/R1	100 kg (220 lbs)	100 kg (220 lbs)	30 mm	piece(s)
17CF1=L/R2	90 kg (198 lbs)	80 kg (176 lbs)	30 mm	piece(s)
17CF1=L/R3	80 kg (176 lbs)	70 kg	30 mm	piece(s)
17CF1=L/R4	70 kg	60 kg (132 lbs)	30 mm	piece(s)
17CF1=L/R5	60 kg (132 lbs)	50 kg (110 lbs)	30 mm	piece(s)
17CF1=L/R6	50 kg (110 lbs)	–	25/30 mm	piece(s)
17CF1=L/R7	–	40 kg (88 lbs)	25 mm	piece(s)
17CF1=L/R8	40 kg (88 lbs)	30 kg (66.1 lbs)	25 mm	piece(s)
17CF1=L/R9	30 kg (66 lbs)	–	25 mm	piece(s)
17CF1=L/R10	–	20 kg (44 lbs)	25 mm	piece(s)
17CF1=L/R11	20 kg (44 lbs)	10 kg (22 lbs)	22 mm	piece(s)
17CF1=L/R12	10 kg (22 lbs)	–	22 mm	piece(s)

Our recommendation

Carbon Ankle seven can be combined with:

- Nurmi Neo
- Walk Star
- Yogi

Single components 17CF1

Rosette washer

Article number	Qty.
507U9=M5	piece(s)
507U9=M4	piece(s)

Phillips oval countersunk head screw

Article number	Qty.
507U9=M5	piece(s)
507U9=M4	piece(s)

Welding nut

Article number	Qty.
502E3=M5x7.5	piece(s)
502E3=M4x6	piece(s)

Classification of the Carbon Ankle seven for AFOs

It is easy to find the right article number in the classification matrix shown below. Simply select the side (e.g. 17CF1=L9 for the left side with a normally active patient who weighs up to 30 kg (66.1 lbs)).

The delivery includes detailed mounting instructions as well as the attachment material needed for the integration into an orthosis.

- The classification applies to AFOs that are intended to influence the knee joint.
- The use of the Carbon Ankle seven carbon spring for KAFOs may require a deviation from the classification.
- The specified weights refer to functionality, not durability.

AFO – free motion ankle joints

17F34 / 17F24 ankle joint bar for children

Forged foot stirrup, flat bar profile, fixed joint, upper sections and foot stirrup

Article number	Bar length/ width/ thickness	Stirrup length from joint centre	Stirrup width	Head diameter	Material	Qty.
17F34=6	180/12/2 mm	115 mm	25 mm	16 mm	Stainless steel	Pair
17F34=5	240/14/2 mm	130 mm	30 mm	18 mm	Stainless steel	Pair

Forged foot stirrup, fixed joint, upper sections and foot stirrup

Article number	Bar length/ width/ thickness	Stirrup length from joint centre	Stirrup width	Head diameter	Material	Qty.
17F24=5	300/15/3 mm	130 mm	40 mm	20 mm	Stainless steel	Pair
17F24=4	300/15/3 mm	130 mm	40 mm	22 mm	Stainless steel	Pair
17F24=2	390/18/3 mm	150 mm	40 mm	24 mm	Stainless steel	Pair

The ankle joint bar for children has been a permanent part of proven fittings with AFO or KAFO solutions for years. Unlike other systems, the foot stirrups and joint bars are designed for high stability. This helps achieve a high correction effect of the entire orthosis. The joint, which is called free-moving, has to be adapted by the orthopedic technician according to the fitting requirements. The benefit is that changes in the position and range of motion can only be made with the help of the orthopedic technician.

The ankle joint bar is freely moveable. A +/- 30° range of motion can be established by filing the upper section.

Our recommendation
The ankle joints for children can be combined with:
- Nurmi Neo

Flexible ankle joints

17AF10 X-ible

It´s so fle[X-ible]!

The 17AF10 is a self-aligning, flexible joint with a free motion or dorsal support function. Its different versions enable the 17AF10 to be adapted to the user's individual needs. The lightweight, flat design makes the 17AF10 particularly attractive and the fabrication of thermoplastic orthoses especially efficient.

- The user's activity level and functional requirements are the key factors for determining the correct joint size.
- Gait analysis and muscle status are the key factors for determining the correct degree of hardness.

Our recommendation
Take advantage of antibacterial thermoplastic synthetic materials, e.g. 616T120 ThermoLyn PPC SilverShield® and 623S* thermopaper (available in various designs).

17AF10 X-ible

Stabilisation of the ankle joint in the frontal plane

Article number	Size	Length	Qty.
17AF10=S	S	3,2 cm	2
17AF10=M	M	3,8 cm	2
17AF10=L	L	4,5 cm	2

17AF10 X-ible

17AF10 X-ible

Pre-flexed to support dorsiflexion in the sagittal plane

Article number	Size	Length	Degree of hardness	Nm	Qty.
17AF10=S-DA-LT	S	3,2 cm	75	0,5	2
17AF10=S-DA-MD	S	3,2 cm	85	0,75	2
17AF10=S-DA-LT	S	3,2 cm	95	1	2
17AF10=M-DA-ST	M	3,8 cm	75	2	2
17AF10=M-DA-MD	M	3,8 cm	85	2,5	2
17AF10=M-DA-LT	M	3,8 cm	95	4	2
17AF10=L-DA-ST	L	4,5 cm	75	3,4	2
17AF10=L-DA-MD	L	4,5 cm	85	4,3	2
17AF10=L-DA-LT	L	4,5 cm	95	6,2	2

17AF10 X-ible pre-flexed

Accessories

17AF10A X-ible dummy

Article number	for	Qty.
17AF10A=DY-S	17AF10=S	2
	17AF10=S-DA-LT	
	17AF10=S-DA-MD	
	17AF10=S-DA-ST	
17AF10A=DY-M	17AF10=M	2
	17AF10=M-DA-LT	
	17AF10=M-DA-MD	
	17AF10=M-DA-ST	
17AF10A=DY-L	17AF10=L	2
	17AF10=L-DA-LT	
	17AF10=L-DA-MD	
	17AF10=L-DA-ST	

17AF10A X-ible dummy

17AD1/17AF2 multifunction ankle joints for thermoplastic technology

Effortless variable support

The ankle joints for thermoplastic lower leg orthoses offer numerous possibilities to fabricate light, functional orthoses for children. Whether free-moving ankle joints for movement guidance or ankle joints that offer the option of controlling or supporting movements, numerous indications can be fitted with these joints. The 17AD1 and 17AF2 ankle joints are practice-oriented, making them easy to work with during production and also functionally simple to use.

17AD1
Dual-function ankle joints with stop pins or springs to limit or support plantar flexion and dorsal extension.
Indication: e.g. ICP

17AF2
Free motion ankle joints. Maintenance-free supported joints that do not permit limitation in the a/p direction but are stable in the m/l direction.
Indication: e.g. severe ankle instabilities.

All joints are supplied with a parallel truing tube and corresponding screws for installation.

17AD1

17AF2

For integration in ankle foot orthoses with dorsal, plantar limitation or spring assist, incl. parallel alignment aid.

17AD1

Article number	Max. body weight	Material	Max. lower leg length	Total length of upper section – foot stirrup	Version	Qty.
17AD1=120	100 kg	Stainless steel	550 mm	120 mm	Adults	Set
17AD1=93	35 kg	Stainless steel	350 mm	93 mm	Childrens	Set

17AF2

Article number	Material	Total length top part – foot stirrup	Version	Qty.
17AF2=77	Stainless steel	77,5 mm	Adults	Set
17AF2=63	Stainless steel	63,5 mm	Childrens	Set

- Simple tool for parallel adjustment is included in the delivery

RGO hip joint system

The connection between the leg bars and the pelvic module is especially important for fittings with reciprocating gait orthoses. The RGO (reciprocating gait orthosis) hip joint system helps users achieve pelvic rotation that imitates physiological rotation during walking. Thanks to the development of a bi-axial joint construction, pelvic rotation of 15° is possible without having to change the walking direction. The result: less effort, more effective gait pattern.

Application

The reciprocating hip joint system was specifically designed for patients with a body weight of up to 65 kg (143 lbs). It can be used with patients suffering from spina bifida or myopathies that come from other causes (e.g., traumatic paraplegia) with a lesion level of Th5 to L3. Restrictions must be made for patients with ICP, motor perception disorders, deficits of movement of the upper limbs, insufficient muscle strength in the shoulder girdle, loss of trunk mobility in frontal or sagittal plane, severe deformities of the skeletal system (e.g. scoliosis, dislocations), hip flexion contracture (> 20°), knee joint flexion contracture (> 15°), and torsional deformities of the legs.

17H100 RGO hip joint system

Article number	Body weight	Pelvic width	Age	Qty.
17H100=0	up to 65 kg (143 lbs)	340–380	9 years and up	Set
17H100=1	up to 65 kg (143 lbs)	270–330 mm	9 years and up	Set
17H100=2	up to 34 kg (75 lbs)	200–260 mm	4–8 years	Set

Please note that the pelvic tube is not included in the scope of delivery and must be ordered separately.

Special features of the Ottobock RGO hip joint system

- Easy to use modular system.
- Separate components allow the orthosis to grow with the child.
- Lightweight alloy pelvic tube with high torsional strength allows for modular connection of joints.
- The bi-axial system allows for a pelvic rotation of 15° in the orthosis without changing the walking direction.
- Push-pull cable system aids in smooth and maintenance-free power transmission during walking.
- Sitting joint lock release with pre-release of the locking mechanism.
- Safety button for re-locking in case of accidental pre-release of the sitting joint.
- Choice of thermoplastic or laminate materials for the integration of an individually fabricated pelvic module.
- Torso bar is easily disassembled.
- Torso bar hip flexion adjusts up to 10°.
- Prefabricated aluminum alloy thigh bars with 0 mm, 5 mm or 10 mm offset available.

Our recommendation

The RGO hip joint system can be combined with:

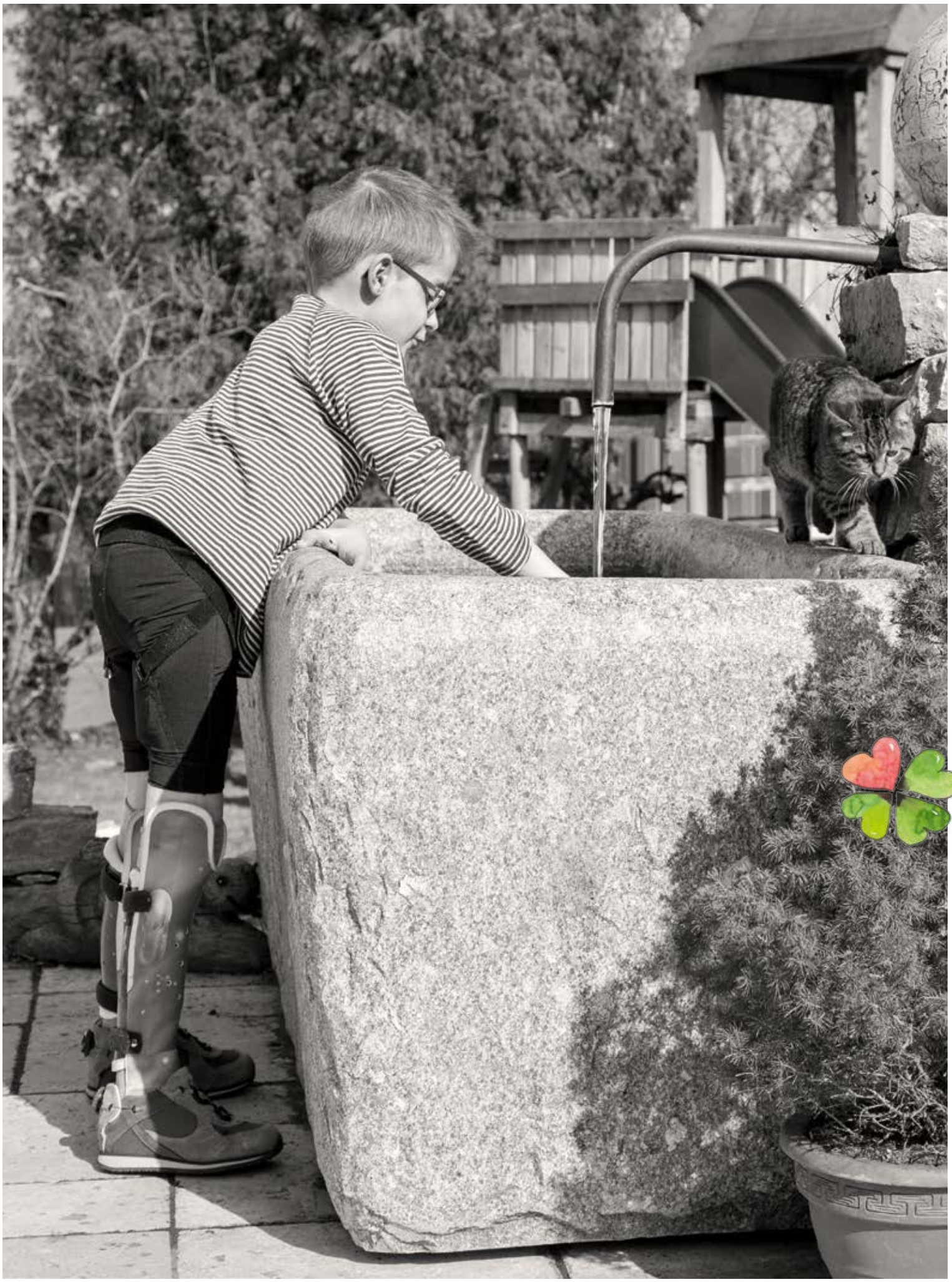
- Walk Star

17H40 hip joint bar with double lock

These hip joint bars are intended for children who exhibit severe instability of the trunk musculature even while sitting and are not able to independently hold their trunk in the A-P plane. Locking at 90° helps improve stability while sitting.

The hip joint bars are supplied in pairs and equipped with a double spring lock for locking at 90° (for stable sitting) and 180° (for stable standing).

Article number	Bar length upper/ lower section	Bar width upper/ lower section	Material	Qty.
17H40=5	330 / 310 mm	14 / 16 mm	Stainless steel	Pair
17H40=6	295 / 265 mm	12 / 13 mm	Stainless steel	Pair



Cosa Active/Junior

Supports patients with neuromuscular diseases

The use of pads between the legs significantly reduces hip adduction, which, along with improved trunk control, helps to stabilise during both standing and sitting.

Thanks to the orthosis, ambulatory patients can use less energy to cover greater distances. In addition, the improved pelvic symmetry and increased freedom of movement for the knees supports a more physiological gait. The Cosa Active/Junior abduction orthosis is also helpful for wheelchair users, since its design makes additional wheelchair abduction blocks unnecessary. Patients with neuromuscular weakness often take a narrower – and thus less stable – position in their chair, which makes it necessary for them to use their hands. By wearing this orthosis, however, patients not only gain a wider seating position, but also greater freedom for their hands, making it easier to eat, play, write, or use electronic devices.

Application
- Diplegia, spastic
- Hip dysplasia
- Hip joint subluxation, congenital
- Hypotonicity
- Tetraplegia, spastic

Exclusion criterion
Hip luxation

Special features
- Improved mobility through minimisation of scissor gait (more knee freedom, improved gait)
- Improved trunk control
- Stable base for sitting and standing
- Can be combined with orthotic devices
- Can be worn day and night
- Easy to customise
- Easy care, machine washable (in laundry bag) at 40 degrees C (104 degrees F)
- Good patient compliance thanks to high comfort

Our recommendation
The Cosa Active/Junior hip abduction orthosis can be combined with:

- Custom/prefabricated AFOs
- Nurmi Neo
- Walk Star
- Yogi

Fitting by the orthopedic technician

The Cosa Active/Junior is generally delivered in a starter set 28L101=*/28L100=*. The set contains 2 pairs of pants size 29L101=*/29L100=* to change and wash, and includes 1 set of 29L102=* pads.

To customise the Cosa Active/Junior, the initial measurements are as important as the final fitting of the device. As a starting point for fitting, it's important to determine the off-the-shelf size, since the starter set pads are also based on this size.

Furthermore, the Cosa Active/Junior offers other, individual fitting options to help you get the best possible fit for your patient.

For you, this means:
- Further adaptations to the pants are possible
- The corresponding positioning bands can be sewn in place
- The pads can be ground down and altered to offer the patient optimal support

Without Cosa Active

With Cosa Active

Size chart

	28L100=* Cosa Junior				28L101=* Cosa Active						
Size	**80**	**92**	**104**	**116**	**128**	**140**	**152**	**S**		**M**	**L**
Standard sizing	**80**	**92**	**104**	**116**	**128**	**140**	**152**	**164 Women 34 Men 42**	**Women 36, 38 Men 44, 46**	**Women 40, 42 Men 48, 50**	**Women 44, 46 Men 52, 54**
Body height (cm)	74 – 86	86 – 98	98 – 110	110 – 122	122 – 134	134 – 146	146 – 158	158 – 170			
Hip circumference (cm)	57 – 59	59 – 62	62 – 64	64 – 68	68 – 72	72 – 78	78 – 86	86 – 96		96 – 105	105 – 109
Pad number	1		2		3		4			5	
Thigh circumference (cm)	26 – 32		32 – 36		36 – 44		44 – 54			54 – 62	

Upper limb fittings

1

2

ICP also often causes movement and functionality limitations of the upper limbs.
Individual functional solutions for supporting the gripping and lifting functions can be created with the selection of products presented below.

16X12 elbow joint bars

One joint bar has a swivelling cable lock and 18 locking positions in 7.2° increments. The second joint bar has no lock. Both joint bars can be used on either side, and are suitable for prostheses as well as orthoses.

Article number	Head diameter	Qty.
16X12	30 mm	piece(s)

Individual components of 16X12

1 6X13 elbow joint bar with cable lock, joint with swivelling cable lock, 18 locking positions in 7.2° increments, flat bar profile, suitable for both sides, for orthoses and prostheses

Article number	Head diameter	Material	Qty.
16X13	30 mm	Stainless steel	piece(s)

2 16X14 elbow joint bar without lock
Free motion joint, flat bar profile, joint bar

Article number	Head diameter	Material	Qty.
16X14	30 mm	Stainless steel	piece(s)

Spare parts and accessories for 16X12, 16X13, 16X14

16Y27 joint piece with cable lock
18 locking positions in 7.2° increments – suitable for both sides

Article number	Qty.
16Y27	piece(s)

16Y31 joint piece without lock

Article number	Qty.
16Y31	piece(s)

16Y26 pull cable

Article number	Qty.
16Y26	piece(s)

21Y79 webbing plate

Article number	Qty.
21Y79	piece(s)

16Y32 cover cap

Article number	Material	Qty.
16Y32	Plastic	piece(s)

501S59 truss head screw

Article number	Qty.
501S59	piece(s)

16Y29 joint bar section
for use as upper or lower bar, suitable for both sides

Article number	Material	Qty.
16Y29	Stainless steel	piece(s)

16Y30 modular connector
for the use of the 16Y27 joint piece with cable lock for modular arm prosthesis

Article number	Material	Qty.
16Y30	Stainless steel	piece(s)

16Y27 joint piece with cable lock

16Y31 joint piece without lock

16Y26 pull cable

21Y79 webbing plate

16Y32 cover cap

501S59 truss head screw

16Y29 joint bar selection

16Y30 modular connector

16X4 arm bars

The arm bar joints have an automatic ratchet lock that locks in extension and releases at maximum flexion (approx. 135°). Concave half-round bar profile.

Article number	Bar width	Joint bar thickness	Head diameter	Material	Qty.
16X4	14 mm	2 mm	26 mm	Stainless steel	piece(s)

Spare parts for 16X4

(1) Locking latch

Article number	Material	Qty.
16Y7	Stainless steel	piece(s)

(2) Lock washer

Article number	Material	Qty.
16Y8	Stainless steel	piece(s)

17B70 positioning joint

The ratchet joint is adjustable in 8° increments and suitable for adjustable positioning splints and static correction orthoses.

Article number	for system width	Material	Unit
17B70=12	12 mm	Stainless steel	piece(s)

Spare parts for 17B70

(1) Bearing nut, hardened

Article number	Unit
17Y93=7x4.8xM5	piece(s)

(2) Rivet pin

Article number	Material	Unit
506A12=4x9	Stainless steel	piece(s)

(3) Ring

Article number	Qty.
18Z3	piece(s)

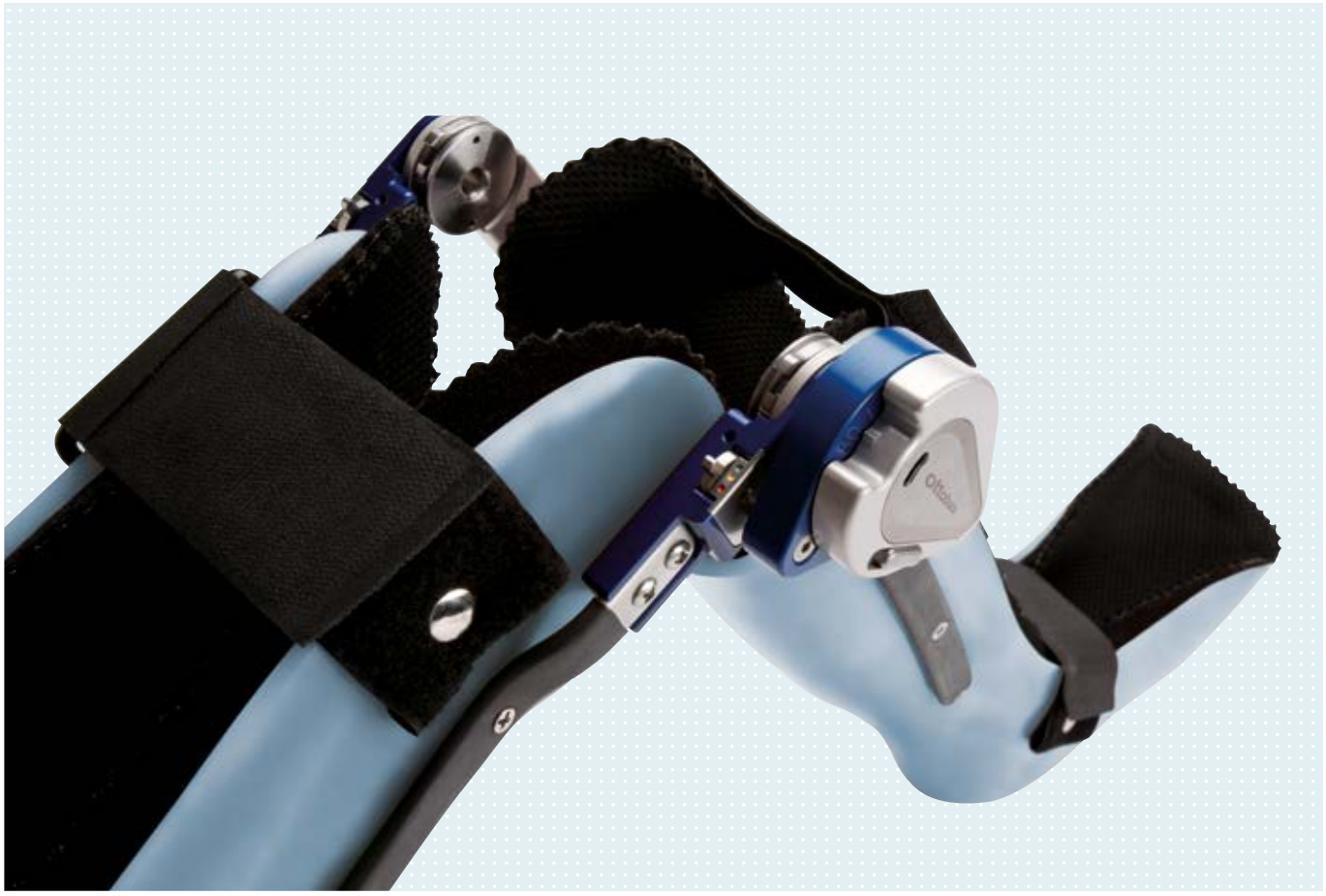
(4) Spring band steel bar extension material

Article number	Length	Width	Material	Qty.
651B1=12	2,000 mm	12 mm	Spring band steel	piece(s)

(5) Slotted truss head screw

Article number	Qty.
501S57	piece(s)

Correction system joints



Contracture treatment is intended to restore joint functionality and avoid deformities. The static correction joint system for the upper and lower limbs (hand, elbow, knee, and ankle joints) is suitable for fittings for adults as well as children. It is used in positioning orthoses with the joints matching the known dimensions of the Ottobock portfolio of joint bars.

The individually required angles are continuously adjustable by means of a worm gear. An angle scale is provided on the joint for orientation, control and targeted adjustment of the correction.

An easy-on, easy-off system has been developed for quick application and removal of the orthosis, allowing correction to be disengaged completely. Another setting option is the unlocking of the joint, which can be set to any extension stop angle. This allows for physiotherapeutic training as well as installation of a dynamic unit.

17BK1 Correction system joints

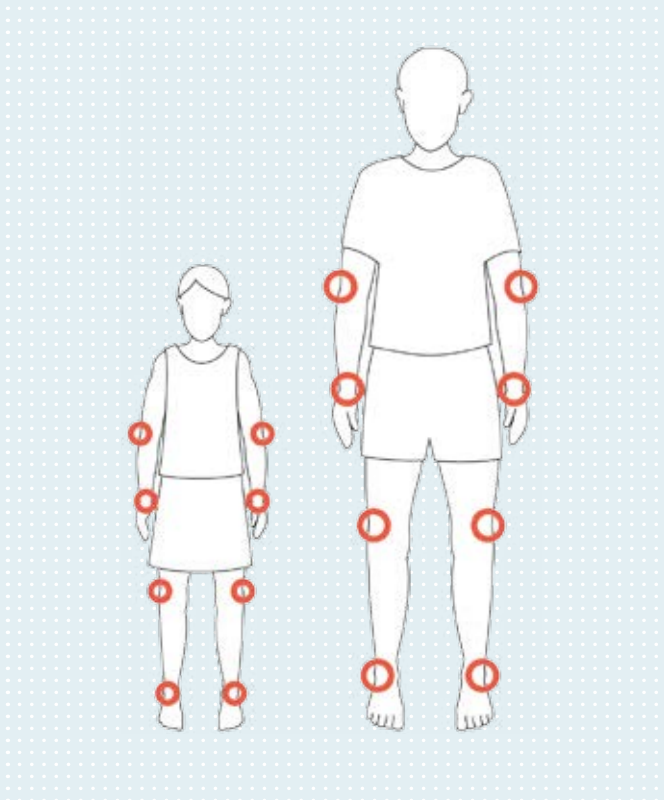
Static joints for positioning orthoses

Article number	Side	System width	Dynamic unit	Material	Qty.	Medial support
17BK1=L1	left	20 mm	17BK2=L1	Aluminium	piece(s)	17BK3=18
17BK1=R1	right	20 mm	17BK2=R1	Aluminium	piece(s)	17BK3=18
17BK1=L2	left	16 mm	17BK2=L2	Aluminium	piece(s)	17BK3=18
17BK1=R2	right	16 mm	17BK2=R2	Aluminium	piece(s)	17BK3=18
17BK1=L3	left	14 mm	17BK2=L3	Aluminium	piece(s)	17BK3=14
17BK1=R3	right	14 mm	17BK2=R3	Aluminium	piece(s)	17BK3=14
17BK1=L4	left	12 mm	17BK2=L4	Aluminium	piece(s)	17BK3=14
17BK1=R4	right	12 mm	17BK2=R4	Aluminium	piece(s)	17BK3=14

Delivery condition: The joint is supplied with an adjustment wrench.

Size recommendation

Body height	Wrist unit	Elbow joint	Knee joint	Ankle joint
Child up to 1 m (39 in)	=L/R4	=L/R4	=L/R4	=L/R4
Child 1 – 1.40 m (39.3 in – 55. in)	=L/R4	=L/R3	=L/R3	=L/R3
Adults up to 1.60 m (62 in)	=L/R4	=L/R3	=L/R2	=L/R2
Adults 1.60 – 1.90 m	=L/R3	=L/R2	=L/R1	=L/R1



Attention:

These indications are only recommendations. The correct size for the respective patient has to be determined and specified by the orthotist. The joints are used individually or in pairs depending on the application. We recommend always using a medial support, e.g., an integrated plastic joint. In cases of knee and ankle joint fittings, bilateral fitting (in pairs) is mandatory. The left/right side indications refer to application of the joints on the wrist, knee joint or ankle joint. To accommodate the anatomical shape of the elbow, the sides must be reversed for elbow applications (right to left and left to right).

Correction system joints

Accessories for 17BK1

17BK2 dynamic unit for correction system joint
The 17BK2 dynamic unit is available for all four sizes of the 17BK1 static correction system joint and, depending on the joint size, offers a maximum spring force of approx. 10 Nm.

Use of the 17BK2 dynamic unit allows for extension or flexion yielding, depending on the joint and indications. A spring is used to slowly bring the joint back into the desired position.

The spring is continuously adjustable, allowing for individual dynamic treatment of contractures.

Article number	Side	System width	Dynamic unit	Material	Qty.	Medial support
17BK1=L1	left	20 mm	17BK2=L1	Aluminium	piece(s)	17BK3=18
17BK1=R1	right	20 mm	17BK2=R1	Aluminium	piece(s)	17BK3=18
17BK1=L2	left	16 mm	17BK2=L2	Aluminium	piece(s)	17BK3=18
17BK1=R2	right	16 mm	17BK2=R2	Aluminium	piece(s)	17BK3=18
17BK1=L3	left	14 mm	17BK2=L3	Aluminium	piece(s)	17BK3=14
17BK1=R3	right	14 mm	17BK2=R3	Aluminium	piece(s)	17BK3=14
17BK1=L4	left	12 mm	17BK2=L4	Aluminium	piece(s)	17BK3=14
17BK1=R4	right	12 mm	17BK2=R4	Aluminium	piece(s)	17BK3=14

17BK3 medial support for correction system joint

Article number	Material	Qty.
17BK3=14	Aluminium	piece(s)
17BK3=18	Aluminium	piece(s)

- Please note that the size and side of the static and dynamic units have to be identical.

"Tabaluga" thermopaper

- For individually dyeing synthetic materials such as ThermoLyn PE 200, ThermoLyn PP-C and ThermoLyn PP-H
- Large selection of unique designs in red, green, blue and white
- Environmentally friendly paper, tear-proof paper
- No additional workshop equipment or special technical knowledge required

Our recommendation
Warm the synthetic material until it is completely transparent. Cut the thermopaper to size and apply it, with the design facing down, onto the precut component; carefully smooth the thermopaper from the middle towards the outside edges. After approx. 20 seconds, pull the thermopaper off the material.

623P110 thermopaper

Reference number	623P110=2-*	623P110=5-*
Length	2 m	5 m
Width	75 cm	75 cm
Colour*	red (2), green (3), blue (5), white (6)	red (2), green (3), blue (5), white (6)

Example for ordering				
reference number	**=**	**Length**	**–**	**Colour**
623P110	=	2	–	2

red (2)

green (3)

blue (5)

white (6)

"Tabaluga" socket decor

- For custom colouring with lamination technology
- Large selection of unique designs
- Proven tubular fabric
- No special workshop equipment or special technical knowledge required

Our recommendation
In order to laminate socket decors, they may be sewn up and used as the first and/or last layer of the laminate like a stockinette, with the design facing the visible side.

Order example				
Reference number	**=**	**Width**	**–**	**Colour**
623S110	=	15	–	2

623S110 socket decor

Reference number	**623S110=15-***	**623P110=20-***
Length	1,5 m	1,5 m
Width	15 cm	20 cm
Colour*	red (2), green (3), blue (5), white (6)	red (2), green (3), blue (5), white (6)

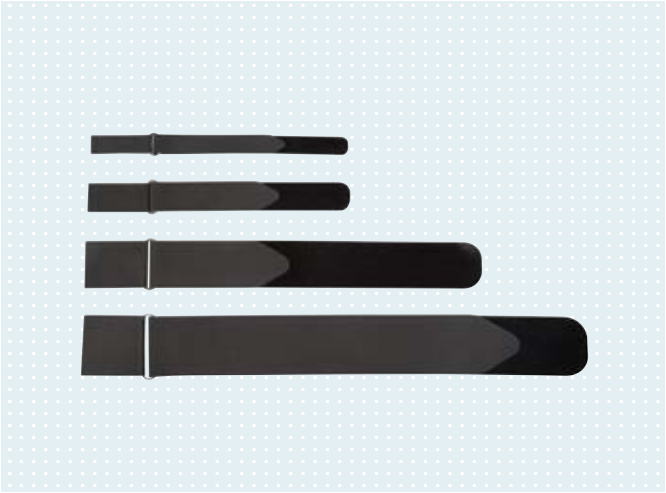
red (2)

green (3)

blue (5)

white (6)

21Y75 PU hook-and-loop closure



Benefits at a glance

- With strap guide loop
- Can be refastened many times
- Individually adaptable length
- Very high hook-and-loop strength
- Not bulky
- Easy to clean thanks to PU coating
- Washable with a damp cloth
- Attractive design: carbon look, black
- Various dimensions available

21Y75 PU hook-and-loop closure

Art. no.	21Y75=280X16-7	21Y75=280X25-7	21Y75=400X40-7	21Y75=680X50-7
Colour	black (7)	black (7)	black (7)	black (7)
Length	280 mm	280 mm	400 mm	680 mm
Width	16 mm	25 mm	40 mm	50 mm

Our recommendation

The PU hook-and-loop closure can be combined with:

- Custom/prefabricated AFOs and KAFOs

Yogi

Anterior walker for children

Our Yogi – a folding anterior walker for children and adolescents – provides secure support, even in case of stumbling or uncertain walking. It is pushed forward, making it a reliable everyday support.

Application

- To support locomotion while walking
- To provide stability for children who lack confidence and have an unstable gait

Special features

- For children who are unstable or trip frequently, but can support their body weight and have good motor skills

Art. no. HR246=0000_K

Standard model

- Folding steel tube construction
- All wheels with ball bearings
- Swiveling front wheels with adjustable swivel lock

Options/equipping possibilities

- Hand grips, extra low (grip height 410 mm / 16 in)
- Padded seat
- Friction brake and wheel lock
- Storage basket

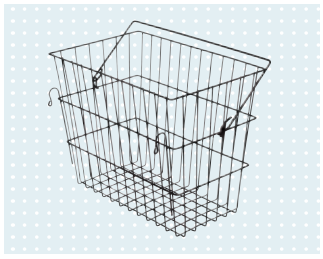
Yogi, folded

Swivelling front wheels with adjustable swivel lock

Options

Hand grips, extra low

Friction brake



Storage basket

Technical data	Size 1	Size 2
Max. load capacity	25 kg (55 lbs)	40 kg (88 lbs)
Overall width	570 mm (22.4 in)	600 mm (23.6 in)
Overall length	560 mm (22 in)	620 mm (24.4 in)
Grip height (standard grip bars)	590–730 mm (23.2–28.7 in)	710–860 mm (28–33.8 in)
Distance between grips (standard grip bars)	410 mm (16.1 in)	460 mm (18.1 in)
Wheel diameter, front/rear	150/150 mm (5.9/5.9 in)	150/200 mm (5.9/7.8 in)
Total weight	5.7 kg (12.5 lbs)	6.1 kg (13.4 lbs)

Walk Star

Wheeled walker

The Walk Star is a wheeled walker that offers both stability and safety thanks to the reverse-roll locking device and swivel lock. It can be folded, and is also very narrow and lightweight – making it easy to transport quickly. And because it is available in five sizes, it is suitable for children, adolescents and adults.

Application

- To support locomotion while walking
- For integration of the supporting musculature in therapy (trunk/shoulder girdle)

Special features

- Ideal for on the go thanks to very low weight
- Narrower than other wheeled walkers
- The sturdy design grows with the child, making it suitable for use into adulthood
- Grip position ideal for standing and walking by children who frequently push out to the rear

Art. no. RR160=0000_K

Standard model

- Folding aluminium construction
- Reverse-roll locking devices on the rear wheels
- Rigidly mounted front wheels
- Friction brake

Options/equipping possibilities

- Swiveling front wheels with swivel lock
- Vertical hand grips with channel forearm pads
- Pelvic supports

Walk Star, folded

Integrated handle

Friction brake

Technical data	Size 1/2	Size 1	Size 2
Body height up to approx.	114 cm (44.8 in)	122 cm (48 in)	137 cm (54 in)
Max. user weight	27 kg (59.5 lbs)	27 kg (59.5 lbs)	38 kg (83.7 lbs)
Min. grip height:			
Rigid	390 mm (15.4 in)	450 mm (17.7 in)	530 mm (20.8 in)
Swivelling	400 mm (15.7 in)	440 mm (17.3 in)	500 mm (19.7 in)
Max. grip height:			
Rigid	480 mm (18.9 in)	580 mm (22.8 in)	690 mm (27.2 in)
Swivelling	490 mm (19.3 in)	570 mm (22.4 in)	660 mm (26 in)
Distance between grips	350 mm (13.8 in)	350 mm (13.8 in)	350 mm (13.8 in)

Technical data	Size 3	Size 4
Body height up to approx.	155 cm (6.1 in)	from 155 cm (6.1 in)
Max. user weight	59 kg (130 lbs)	100 kg (220 lbs)
Min. grip height:		
Rigid	630 mm (24.8 in)	830 mm (32.7 in)
Swivelling	630 mm (24.8 in)	830 mm (32.7 in)
Max. grip height:		
Rigid	820 mm (32.3 in)	1020 mm (40.2 in)
Swivelling	820 mm (32.3 in)	1020 mm (40.2 in)
Distance between grips	390 mm (15.4 in)	450 mm (17.7 in)

Options

Walk Star with swivelling front wheels (with swivel lock)

Vertical hand grips with channel forearm pads

Pelvic supports (pair)

Walking with walking aids

Nurmi Neo

Wheeled walker

Art. no. HR2426=0000_K

Children with displacement of the body's centre of gravity benefit from a walking aid that is pulled (wheeled walker). Thanks to various handles and hip supports, the folding Nurmi Neo enables optimal, customised adaptation to the gait pattern.

Application

- Support for locomotion while walking
- For integration of the supporting musculature in therapy (trunk/shoulder girdle)

Special features

- Frame structure suitable for children with wide tracking in their gait pattern – e.g. children with diparesis or tetraparesis and good residual functions
- Optimum support for universal handles and forearm supports
- For children with a shifted centre of gravity, the handle position in combination with the pelvic support can be individually adjusted and fine-tuned
- Stable posture aided by pelvic support is the prerequisite for the first steps

Height and depth of grip bar can be adjusted with standard grips

Continuous height adjustment

Reverse-roll lock at the rear wheels (can be activated and deactivated)

Walking with walking aids

Standard model

- Three sizes
- Height and depth-adjustable grip bars with standard handles
- Swivelling front wheels
- Puncture-proof tyres
- Reverse-roll locking devices on the rear wheels (can be activated and deactivated)

Options/equipping possibilities

- Height and depth-adjustable grip bars with universal handles
- Height and depth-adjustable grip bars with channel forearm pads
- Combined gluteal and pelvic support, adjustable in 3 dimensions
- Friction brake
- Driving brake and wheel lock
- Anti-tipper
- Swivel lock
- Seat
- Storage basket

Nurmi Neo, folded

Technical data	Size 1	Size 2
Max. load capacity	25 kg (55 lbs)	40 kg (88 lbs)
Overall width	630 mm (24.8 in)	680 mm (26.8 in)
Overall length	650 mm (25.6 in)	760 mm (29.9 in)
Grip height (standard grip bars)	450–570 mm (17.7–22.4 in)	580–720 mm (22.8–28.3 in)
Distance between grips (standard grip bars)	410 mm (16.1 in)	460 mm (18.1 in)
Wheel diameter, front/rear	150/150 mm (5.9/5.9 in)	150/200 mm (5.9/7.8 in)
Total weight	5.5 kg (12.1 lbs)	6 kg (13.2 lbs)

Technical data	Size 3
Max. load capacity	55 kg (121.2 lbs)
Overall width	720 mm (28.3 in)
Overall length	830 mm (32.7 in)
Grip height (standard grip bars)	640–850 mm (25.2–33.5 in)
Distance between grips (standard grip bars)	510 mm (20 in)
Wheel diameter, front/rear	150/200 mm (5.9/7.8 in)
Total weight	6.5 kg (14.3 lbs)

Options

- Height and depth-adjustable grip bars with universal handles

- Height and depth-adjustable grip bars with channel forearm pads

- Combined gluteal and pelvic support, adjustable in 3 dimensions

- Gluteal support, adjustable in 3 dimensions

- Driving brake and wheel lock

- Anti-tipper

- Caster swivel lock (pair)

- Seat and storage basket

Walking with walking aids

KidWalk

Dynamic walker for children

Art. no. 420R119=20000_K

The Kidwalk dynamic walking aid gives children with severe disabilities stable pelvis and trunk support and allows them to walk with a natural gait without help from others. The concept of the walking aid is based on the normal motor development of children.

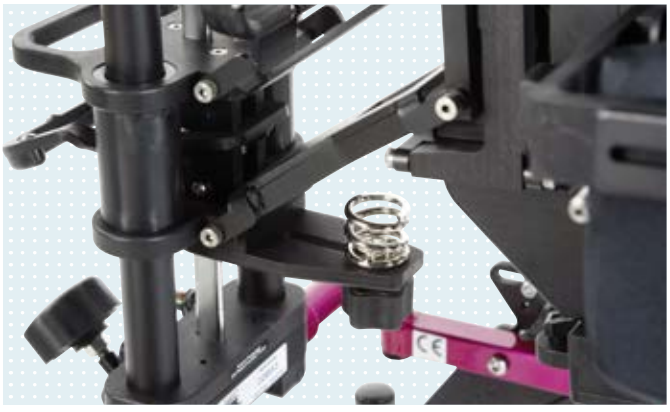
Application

- Indoors and outdoors for independent mobility
- As a complement to gait training in order to provide children with an alternative to a wheelchair or seating system by offering an upright body posture

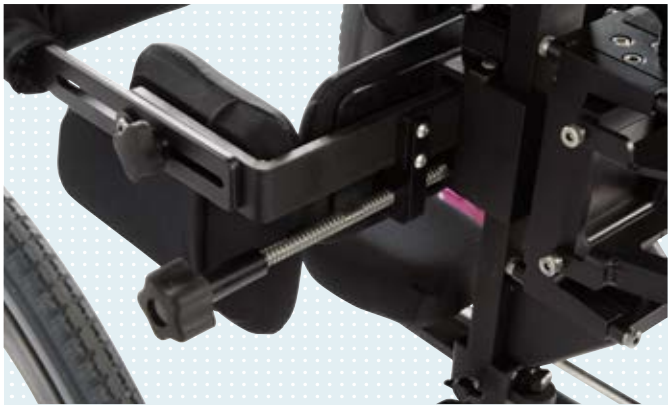
Special features

- Ideal for early intervention because the concept is based on the motor development of children
- Because the pelvis and trunk are supported, the child can move freely and at eye level with others
- The hands are free for play and to explore the environment
- Easy mobility even outdoors thanks to large front wheels
- Small obstacles, curbs and steps can be negotiated without great effort
- Adjustment without tools

Elevating front thorax and pelvic supports



Dynamic weight relief with adjustable load-compensating spring



Auto-centring pelvic guide

Walking with walking aids

Standard model

- Two sizes
- Upholstery colour: black
- 5-spoke plastic wheels adjustable in 3 axle positions
- Black padding combined with choice of 3 frame colours
- Auto-centring pelvic guide
- Dynamic weight shifting mechanism
- Dynamic weight relief with adjustable load-compensating spring assembly
- Height adjustable with one hand
- Angle-adjustable mast
- Adjustable pelvic support
- Adjustable anti-tipper
- Luminous caster wheels
- Wheel lock

Options/equipping possibilities

- Head pad/head supports
- Encompassing thoracic supports
- Large pelvic supports
- Trunk strap
- Various seats
- Leg/foot guides
- Large rear wheels with plastic rim
- Swivel lock
- Reverse stop

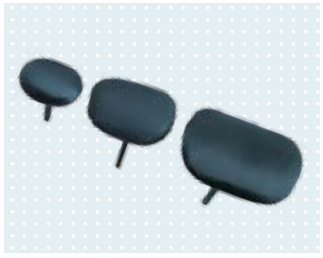
3 axle adapter positions for main wheels

Angle-adjustable adapter column

Wheel lock

Technical data	Size 1	Size 2
Age	1–7 years	5–12 years
Max. user weight	30 kg (66.1 lbs)	40 kg (88 lbs)
Seat height (inside leg length)	279–550 mm (11.0–21.7 in)	375–700 mm (14.8–27.6 in)
Hip width	145–235 mm (5.5–9.6 in)	180–290 mm (7.1–11.4 in)
Chest width (min./max.)	165–255 mm (6.5–10.0 in)	220–370 mm (8.7–14.6 in)
Armpit height	245–410 mm (9.6–16.1 in)	300–560 mm (11.9–22.0 in)
Chest support depth, standard	102–165 mm (4.0–6.5 in)	140–216 mm (5.5–8.5 in)
Hip support depth, standard	89–152 mm (3.5–6.0 in)	127–178 mm (5.0–7.0 in)
Frame width	600 mm (23.6 in)	688 mm (27.1 in)
Frame length	675 mm (26.6 in)	800 mm (31.5 in)
Adapter column height	825 mm (32.5 in)	930 mm (36.6 in)
Overall length	825–875 mm (32.5–34.5 in)	900–950 mm (35.4–37.4 in)
Wheels	500 mm (20")	600 mm (24")
Casters	100 mm (3.9 in)	125 mm (4.9 in)
Total weight	20 kg (44 lbs)	21 kg (46. 2 lbs)

Options



From the left: head pad, small contoured head support size S, medium contoured support size M

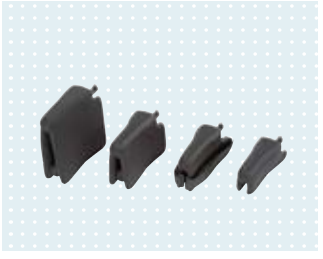
Encompassing thoracic support

Large pelvic supports

Soft trunk belt

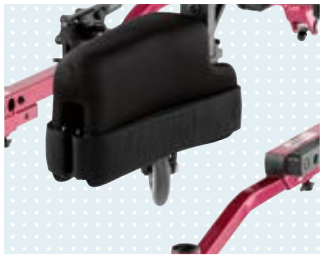
Standard seat

Large, wide, padded seat



Extended seat with various gait guidance heights

Sliding foot guide



Leg guidance belts
For attachment to seat

Elastic leg guide

Swivel lock

Reverse stop

Leckey Totstander

Therapy aid

The Leckey Totstander is a simple standing aid for toddlers aged 1 to 5 years to support upright, active standing during therapy. Therapists have their hands free and can focus entirely on their work.

Application

- Indoors to support all types of therapy with a standing initial position

Special features

- Support for therapists
- Straightforward concept, adaptable in seconds

Art. no. 414C82=11000-21

Standard model

- 1 size
- Colour: meadow
- Wood elements
- Adjustable chest and knee supports, hip belt
- Adjustable sandals

Knee supports

Sandals

Lap belt

Technical data	
Age	1–5 years
Overall length	450 mm (17.7 in)
Overall width	450 mm (17.7 in)
Min. chest support height	470 mm (18.5 in)
Max. chest support height	640 mm (25.2 in)

Squiggles stander

Stander for children

The Squiggles stander provides early support for the social and physiological development of the child. With it, children from around 1 to 5 years can participate in life in an upright position.

Application

- At home, in facilities, in the kindergarten or at school
- With the standard base (U-shape) at a fixed location (angle 90°–110°)
- The tilting base with casters can be used anywhere indoors (angle 90°–160°)

Special features

- Quick and easy to adapt because the height, depth, width and angle of the supports are adjustable without tools
- Simple conversion of the Squiggles stander from prone to face-up position and back without additional accessories
- Choice of bases depending on development phase and mobility grade: from standard to mobility base

Art. no. 414C89=50000_K

Standard model

- 1 size
- Colours: pink, orange, green, blue
- Standard base
- Centre column with hip and trunk guidance
- Hip and trunk supports
- Knee supports and foot support

Options/equipping possibilities

- Other bases available
  (tilting base with casters or mobility base with quick-release axle and 24" or 27" wheels)
- Various head supports
- Tray
- Grab rail
- Height compensation for different leg lengths
- Sandals

Technical data	Stander
Age	1–5 years
Body size (min./max.)	75–110 cm (3.0–4.3 in)
Torso pad height (footplate to armpit)	550–820 mm (21.65–32.3 in)
Chest width (min./max.)	160–230 mm (6.9–9.1 in)
Hip pad height (footplate to middle of buttocks)	300–530 mm (11.8–20.9 in)
Hip width	160–230 mm (6.9–9.1 in)
Tray height – prone position	555–825 mm (21.9–32.5 in)
Tray height – supine position	480–825 mm (18.9–32.5 in)
Tilting chassis inclination	90° to 160°
Standard chassis inclination	90° to 70°
Chassis angle of tilt	90° to 70°

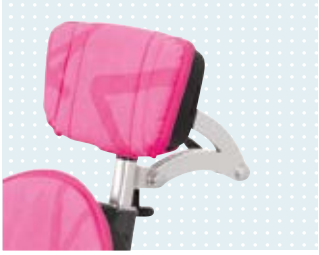
Standard base

Height, width and angle-adjustable trunk supports (hip supports follow same principle)

Options

Tilting base with casters, prone position

Mobility base with 27" wheels



Head support, flat

Head support, flat with lateral guides

Tray with grab rail

Sandals

Standing with supports

Mygo stander

Stander for children and teens

Art. no. 414C88=10000_K

With the Mygo stander, children four years and up who require complex support can assume a natural, upright posture with complete support of their body weight. The swinging footplate combined with the knee support relieves contracted muscles.

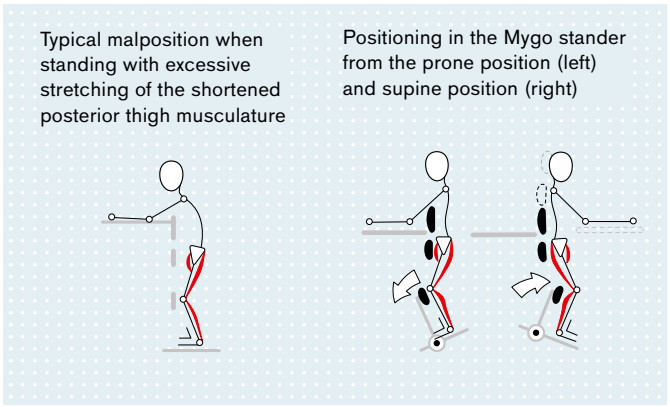
Application

- Wherever regular standing training is required
- At home indoors, in facilities, kindergartens or schools

Special features

- Offers therapeutically correct, complex posture support, e.g. in the case of shortened thigh musculature
- The user can stand in a fully supportive position with the hip and knee bent
- Innovative leg positioning: relieves strain on the thigh musculature and other contracted muscles
- Can be used for more than one child since all settings have scales
- Different versions for pelvic fixation cover all pelvis malpositions or muscle activity states

From the supine position



Positioning

Vertical, with hand crank for manual angle adjustment

Standing with supports

Standard model

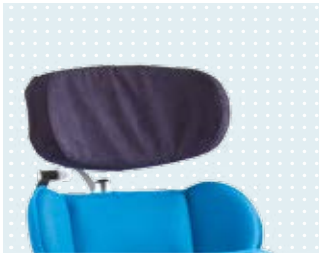
- Two sizes
- Colours: orange, blue, pink
- Sturdy base frame with 4 locking casters
- Continuous angle adjustment by hand crank from 90° to 170°
- Height-adjustable PU pelvic pad
- Segmented angle and height-adjustable PU knee supports
- Angle-adjustable footplates with slip-resistant surface

Options/equipping possibilities

- Head support
- Adjustable shoulder guide pad
- Fixed, folding and complex lateral supports
- Knee, pelvic and trunk belts
- Gluteal support with abduction guide
- Various trays
- Knee support extension raiser
- Sandals

Technical data	Size 1	Size 2
Age	4–10 years	8–14 years
Body height	108–145 cm (4.3–5.7 in)	135–175 cm (5.3–6.9 in)
Max. user weight	50 kg (110 lbs)	60 kg (132 lbs)
Chest support height	760–1080 mm (29.9–42.5 in)	980–1300 mm (38.5–51.2 in)
Chest width (min./max.)	160–280 mm (6.3–11.0 in)	200–320 mm (7.9–12.6 in)
Hip support height	460–730 mm (18.1–28.7 in)	620–875 mm (24.4–34.4 in)
Hip width	220–330 mm (8.7–13.0 in)	280–390 mm (11.0–15.4 in)
Max. knee angle adjustment	25°	25°
Footplate angle: plantar flexion / dorsiflexion	10°	10°
Tray angle setting Prone/supine position	45°	45°
Tray height	0–150 mm (0–6.0 in)	0–150 mm (0–6.0 in)
Seat tilt: Prone/supine position	0° to 80°	0° to 80°
Overall chassis length	978 mm (38.5 in)	1130 mm (44.5 in)
Overall chassis width	630 mm (24.8 in)	650 mm (25.6 in)
Total weight	22 kg (48.5 lbs)	25 kg (55 lbs)

Options

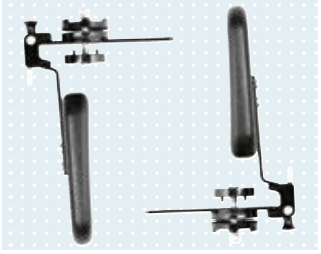


Pad and cover for head support

PU shoulder pad – one size only

Shoulder pad cover – one size only

Fixed chest supports (pair) – one size only



Foldable chest supports (pair) – one size only

Foldable chest supports, complex with cover (single)

Pelvic supports (pair)

Chest/lap belt with support pad

- Derotation lap belt for prone position

- Derotation lap belt for supine position

- Standard knee strap

- Segmented knee straps

- Complete gluteal support with padded abduction guide

- Tray

- Tray with therapy bowl

- Tray with clear insert

- Grip bar for the tray

- Knee support raisers (pair)

- Sandals

Supportive sitting aids

PAL

Early intervention chair

Art. no. 414P78=XXXXX

The individually adjustable PAL early intervention chair helps young children achieve a stable sitting position and allows them to participate in group activities, including sitting at the table. The wooden chair comes with various legs/bases.

Application

- In kindergartens and schools
- In facilities
- During therapy
  (occupational therapy, speech therapy, etc.)
- In the household
  (size 1 with high chair frame at the kitchen table, size 2 to 3 at child tables, size 4 at youth desk)
- Popular as standard equipment in kindergartens, schools and facilities

Special features

- Individual sizes grow with the child: consistently stable sitting support
- Also suitable for children without disabilities
- Individual upgrading options depending on the needs of the child

PAL stabiliser (optional)

PAL ski with casters (optional)

PAL rocker (optional)

Supportive sitting aids

Standard model

- 4 sizes
- Colours: pink, blue, orange, green
- Height-adjustable wooden chair
- Easy-care seat and back cushion
- Angle-adjustable back
- Height-adjustable arm supports
- Pelvic belt
- Adjustable seat depth

Options/equipping possibilities

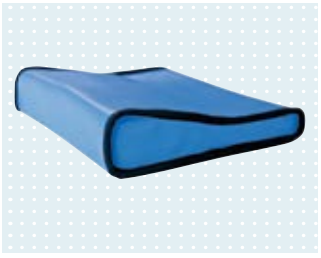
- High chair frame (only in size 1)
- Seat padding, wedge-shaped
- Abductor
- Pelvic pads 25 or 50 mm (1.0 – 2.0 in) thick
- Height-adjustable footplate
- Tray
- Tray pad
- Side table for 2 and 4 children
- Bases, different versions

Technical data	Size 1	Size 2
Age	1–3 years	2–5 years
Body size (min./max.)	70–95 cm (27.6–37.4 in)	90–105 cm (35.4–41.3 in)
Max. user weight	30 kg (66.1 lbs)	35 kg (77.2 lbs)
Seat depth	180–240 mm (7.1–9.4 in)	220–290 mm (8.7–11.4 in)
Seat width	150–250 mm (5.9–9.8 in)	170–270 mm (6.9–10.6 in)
Seat height to floor	160–240 mm (6.3–9.4 in)	185–285 mm (7.3–11.2 in)
Back height	265 mm (10.4 in)	315 mm (12.4 in)
Total weight	4.3 kg (9.5 lbs)	6 kg (13.2 lbs)
Arm support height	120–150 mm (4.7–5.9 in)	140–170 mm (5.5–6.7 in)
Tray height	400 mm (15.7 in)	460 mm (18.1 in)
Back angle	95° to 105°	

Technical data	Size 3	Size 4
Age	4–8 years	7–12 years
Body size (min./max.)	100–130 cm (39.3–51.2 in)	120–160 cm (47.2–63.0 in)
Max. user weight	40 kg (88 lbs)	50 kg (110 lbs)
Seat depth	250–330 mm (9.8–13.0 in)	300–400 mm (11.8–15.8 in)
Seat width	230–330 mm (9.1–13.0 in)	280–380 mm (11.0–15.0 in)
Seat height to floor	250–350 mm (9.8–13.8 in)	300–400 mm (11.8–15.8 in)
Back height	380 mm (15.0 in)	450 mm (17.7 in)
Total weight	8.2 kg (18 lbs)	10 kg (22 lbs)
Arm support height	180–230 mm (7.1–9.1 in)	190–240 mm (7.5–9.5 in)
Tray height	530 mm (20.8 in)	n/a
Back angle	95° to 105°	

Options

- High chair frame for size 1



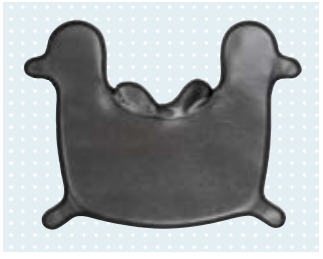
- Seat padding, wedge-shaped

- Abductor

- Pelvic pad
  (25 mm or 50 mm / 1 or 2 in)

- Footplate, height-adjustable

- Tray



- Tray pad

- Side table for 2 children

- Side table for 4 children

Supportive sitting aids

Everyday activity seat

Therapy chair

The Everyday activity seat is suitable for children aged 1 to 18 years to support stable sitting – a therapy chair for everyday use and all day-to-day situations where a conventional chair is inadequate. Thanks to its many options and accessories, the activity seat can be used to correct numerous postural weaknesses as well as for sensory training.

Application

- In kindergartens and schools
- In facilities
- During therapy
  (occupational therapy, speech therapy)
- In the household
  (kitchen table, desk)

Special features

- Suitable for many everyday situations
- Aligns with all therapy objectives
- Narrow construction for use in the home
- Child-friendly colours and cosy design
- Easy to adjust
- Easy to adapt for growth or physical changes
- Generous selection of options

Basic mobility base

Hi-Low chassis (optional)

Hi-Low chassis, continuously adjustable (optional)

Supportive sitting aids

Standard model

- Three sizes
- Colours: raspberry/black, blue/black, green/black, ebony/grey
- Seating unit
- Basic chassis with gas compression spring
- Pads for pelvic positioning

Options/equipping possibilities

- Hi-Low chassis with gas compression spring
- Various head supports
- Mygo head support attachment bracket, detachable
- Various lateral supports (simple, complex, foldable, different shapes)
- Protraction pads
- Pelvic supports
- Various chest and lap belts
- Abductor
- Arm support
- Tray made of wood or plastic
- Footplate made of wood or metal
- Sandals

Options

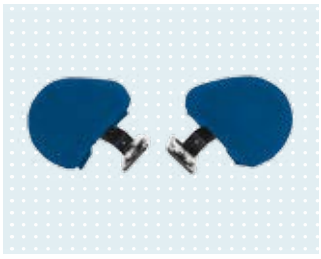
Contoured head support with hardware and cover

Flat head support with cover

Head support, flat with lateral guides

Mygo head support attachment bracket, detachable

Fixed lateral supports made of polyurethane (cover included)



Fixed lateral supports, basic version (cover included)

Technical data	Size 1	Size 2	Size 3
Age	1–6 years	5–12 years	11–18 years
Max. load	30 kg (66.1 lbs)	50 kg (110 lbs)	100 kg (220 lbs)
Seat depth	150–280 mm (5.9–11.0 in)	230–380 mm (9.1–15.0 in)	330–480 mm (15.0–18.9 in)
Seat width	160–280 mm (6.3–11.0 in)	260–380 mm (10.3–15.0 in)	340–500 mm (13.4–19.7 in)
Seat height, Hi-Low mobility base	250–600 mm (9.8–23.6 in)	320–600 mm (12.6–23.6 in)	450–600 mm (17.7–23.6 in)
Seat height, Basic chassis	450–600 mm (17.7–23.6 in)		
Back height	300–400 mm (11.8–15.8 in)	400–520 mm (15.8–20.5 in)	450–630 mm (17.7–24.8 in)
Lower leg length	150–250 mm (5.9–9.8 in)	250–450 mm (11.0–17.7 in)	280–450 mm (11.0–17.7 in)
Arm support height	150–250 mm (5.9–9.8 in)	200–300 mm (5.9–11.8 in)	180–325 mm (7.1–12.8 in)
Seat angle adjustment	-10° to +30°		-10° to +30°
Knee angle adjustment	-10° to +50°		-10° to +50°
Chest width	150–220 mm (5.9–8.7 in)	170–240 mm (6.7–9.5 in)	240–370 mm (9.5–14.6 in)
Weight of seating unit with basic chassis	22.5 kg (49.6 lbs)	27 kg (59.5 lbs)	35,9 kg (79 lbs)
Weight of seating unit with Hi-Low chassis	29.5 kg (65 lbs)	34 kg (75 lbs)	49 kg (108 lbs)
Seat tilt	-10° to + 30°		

- Folding lateral supports made of polyurethane

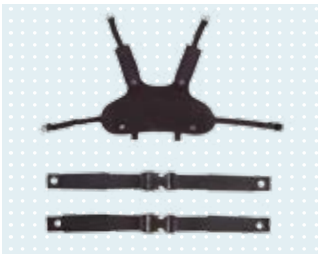
- Complex folding lateral supports

- Protraction pads

- Pelvic supports (pair, with covers)

- Chest harness (size 3 with neopren cover)

- Chest harness (sizes 1 & 2 with cover)



- Extension straps for chest & shoulder belt (black)

- 4-point pelvic harness

- Abductor

- Arm supports

- Tray (wood) for all sizes

- Tray (plastic) for size 1 & 2

- Tray (black) for size 3

- Footplate (wood)

- Footplate (metal)

- Sandals, (including straps)

Positioning seating aid systems

Squiggles seating system

Modular seating system for infants and children

Art. no. 414P89=50000_K

The Squiggles seating system is the entry-level model for young children aged 1 to 5 years who need a positioning system due to postural weakness. It grows with the child and simultaneously provides the necessary positioning for the pelvis, torso, head and legs. With its Hi-Low chassis, the seating system is ideal for all everyday situations.

Application

- At home for everyday activities (playing, eating)
- In the kindergarten or at school
- For transportation with a corresponding chassis

Special features

- Based on the development stage and needs of young children. Therefore significantly more compact and lightweight
- The Hi-Low chassis is a must for very young children in order to communicate at eye level, for play and to provide back relief for attendants
- Grows with the child
- Can be set onto various chassis in one step

Squiggles seating system on Hi-Low chassis

Squiggles seating system on Kimba Neo outdoor mobility base (optional)

Squiggles seating system on Skippi power wheelchair (optional)

Positioning seating aid systems

Standard model

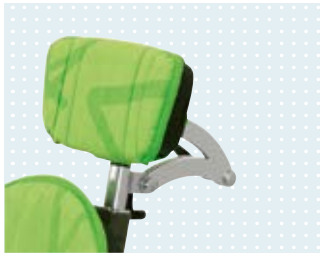
- 1 size
- Colours: pink, orange, blue, green
- Adjustable seating unit
- Back angle adjustment
- Seating shell adapter
- Lumbar support
- Choice of Basic or Hi-Low chassis with gas compression spring

Options/equipping possibilities

- Various adjustable head supports
- Shoulder guide
- Fixed and folding lateral supports
- Chest or chest & shoulder belt
- 4-point pelvic harness
- Encompassing protective padding
- Abductor
- Tray with and without grab rail
- Height and angle-adjustable footplate
- Individual sandals with foot straps
- Can be combined with other mobility bases

Technical data	
Age	1–5 years
Body height	75–110 cm (29.5–43.3 in)
Max. load	22 kg (48.5 lbs)
Seat depth	190–290 mm (7.5–11.4 in)
Seat width	160–260 mm (6.3–10.2 in)
Back height (with shoulder guide + 100 mm/3.9 in)	320–380 mm (12.6–15.0 in)
Chest width	160–220 mm (6.3–8.7 in)
Back angle	-10° to +25°
Seat tilt	-10° to +30°
Seat height to floor (Hi-Low chassis)	270–650 mm (10.6–25.6 in)
Footplate angle	± 10°
Weight of seating unit	6 kg (13.2 lbs)
Hi-Low mobility base weight	9 kg (19.8 lbs)
Lower leg length	125–270 mm (4.9–10.6 in)
Hip width (distance between hip supports)	160–220 mm (6.3–8.7 in)
Knee width	90–190 mm (3.5–7.5 in)
Tray dimensions	460x560 mm (18.1 x 22.0 in)
Tray height	115–170 mm (4.5–6.7 in)
Overall length (Hi-Low chassis)	640 mm (25.2 in)
Overall width (Hi-Low chassis)	540 mm (22.3 in)
Overall height (Hi-Low chassis)	315 mm (12.4 in)
Overall length (basic chassis)	630 mm (24.8 in)
Overall width (basic chassis)	525 mm (20.7 in)
Overall height (basic chassis)	265 mm (10.4 in)
Weight, basic chassis	4.5 kg (9.9 lbs)

Options



- Head support, flat

- Head support, flat with lateral guides

- Head support, contoured

- Shoulder guide

- Adjustable lateral supports, fixed or folding

- Chest strap

- Chest & shoulder belt

- 4-point pelvic harness

- Abductor

- Encompassing protective padding

- Tray

- Padded tray support

- Grip bar

- Footplate height and angle-adjustable

- Sandals

Mygo seating system

Modular seating system for children and teens

Art. no. 414P88=50000_K

The modular Mygo seating system safely supports children from 3 to 14 years thanks to the optional wraparound pelvic harness. The modular system prevents incorrect pelvic posture and can be adjusted flexibly based on the needs of the child.

Application

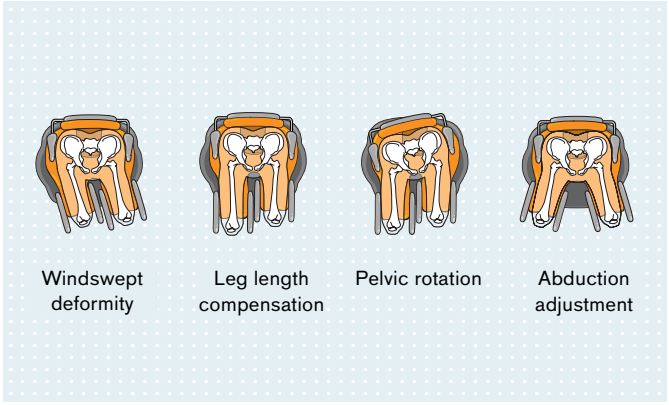
- At home for everyday activities (playing, eating)
- At school
- For transportation with a corresponding mobility base (e.g. Kimba Neo, discovery tmax or Tourbase)

Special features

- More adjustment possibilities than the Squiggles seating system; designed for older children with postural deformities, hip problems or various levels of tonicity (muscle activity)
- Grows with the child
- Can be combined with various indoor and outdoor chassis

Mygo seating system size 1 on Kimba Neo outdoor mobility base size 2 (optional)

Mygo seating system on Skippi^{plus} (optional)



Positioning options

Positioning seating aid systems

Standard model

- Two sizes
- Colours: pink, blue, orange, anthracite
- Width and depth-adjustable seating unit
- Angle and height-adjustable back
- Shoulder guide for size 2
- Lumbar spine support
- Abduction guide, windswept deformity adjustment
- “Parallel” seating shell adapter
- Cushion unit with washable cover
- Hi-Low chassis, manual or electric

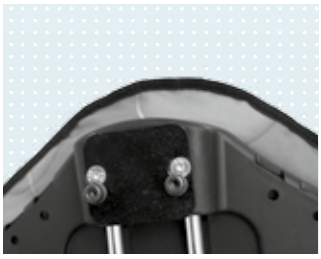
Options/equipping possibilities

- Various head supports
- Dynamic back angle adjustment
- Pad for shoulder guide
- Various lateral supports, hip support
- 4-point pelvic harness, chest belt, chest & shoulder belt
- Pelvic cushion and compensation cushion
- Special pads for pelvic tilt
- Arm supports
- Tray and padding
- Push bar
- Knee pads
- Foot supports and sandals
- Can be combined with other mobility bases, see Section 4.7

Options

Flat head support + cushion, flat head support pads + covers

Contoured head support and cushion (wide)



Head support plate (to install a head support holder)

Head support bracket for ½" and 15 mm box sections

Technical data	Size 1	Size 2
Age	3–10 years	8–14 years
Max. load	50 kg (110 lbs)	60 kg (132 lbs)
Seat depth (min./max.)	270–420 mm (10.6– 16.5 in)	350–470 mm (13.8–18.5 in)
Seat width (min./max.)	200–325 mm (7.9–12.8 in)	220–345 mm (8.7–13.6 in)
Back height (min./max.)	360–470 mm (14.2–18.5 in)	460–570 mm (18.1–22.4 in)
Lower leg length (min./max.)	215–350 mm (8.5–13.8 in)	315–470 mm (12.4–18.5 in)
Knee width	90–110 mm (3.5–4.3 in)	120–140 mm (4.7–5.5 in)
Trunk width	170–270 mm (6.9–10.6 in)	170–270 mm (6.9–10.6 in)
Arm support height	160–210 mm (6.3–8.3 in)	210–260 mm (8.3–10.2 in)
Seat height to floor (min./max.), Hi-Low chassis	370–675 mm (14.6–26.6 in)	370–675 mm (14.6–26.6 in)
Footplate angle	-10° to +10°	-10° to +10°
Leg abduction angle	8°	8°
Leg adduction angle	12°	20°
Seat tilt	-10° to +25°	-10° to +25°
Back angle	-10° to +25°	-10° to +25°
Weight of seating unit	10 kg (22 lbs)	14.5 kg (32 lbs)
Body height	105–150 cm (41.3–59.0 in)	127–168 cm (50.0–66.1 in)
Lower leg length	215–350 mm (8.5–13.8 in)	315–470 mm (12.4–18.5 in)
Hi-Low mobility base weight	12 kg (26.5 lbs)	12 kg (26.5 lbs)
Tray dimensions	550x480 mm (21.6 x 18.9 in)	550x480 mm (21.6 x 18.9 in)

Pad for shoulder guide

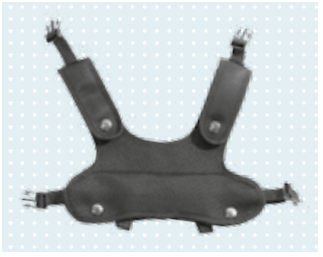
Firm pads including covers (firm pads high)

Folding pads including covers (one colour)

1"/25 mm thick back pad with thoracic supports

Hip supports

Chest strap

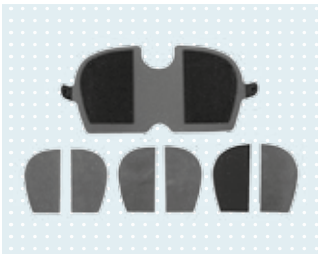


Chest & shoulder belt, three sizes

Wraparound pelvic harness, various sizes

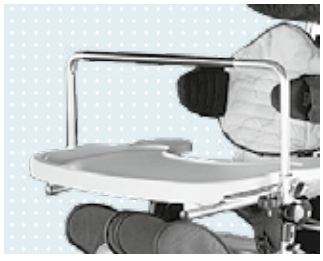
Lap belt, two sizes

Pelvic pad as spacer



Special pads for pelvic tilt

Arm supports



Grab rail for tray

Knee pads

Foot supports

Sandals (including straps) in three sizes, 1"/25 mm sandal raisers

Positioning seating aid system

Mygo Max seating system

Modular seating system for adolescents and young adults

Art. no. 414P146=50000

The Mygo grows up. The new Mygo Max offers the proven features and functions of the Mygo, but optimised in size, comfort and functionality. With a maximum load of 85 kg (187 lbs) and a maximum seat width of 500 mm (19.7 in), it is the optimum solution for teens on their way to adulthood. The comfortable padding in a choice of four colours makes the Mygo Max a trendy seat for young users.

Application
- At home
- At school and in facilities
- Indoors and outdoors, depending on choice of chassis
- For transportation with corresponding mobility bases

Special features
- The thigh guide raised by 50 mm (2 in) provides additional support in the abduction position.
- The seat optimised for a seat width of 500 mm (19.7 in) offers a good level of comfort, also for young adults.
- The required sitting position can be set with the help of additional seat ramps on the leg guides.

Positioning options

Additional scales on the back support, lateral supports and lower leg supports allow the optimum sitting position to be recorded.

The thigh guide raised by 50 mm (2 in) provides additional support in the abduction position.

Positioning seating aid systems

Standard model

- Seating unit
- Back part
- Integrated and adjustable shoulder guide
- Adapter for arm supports and head support
- Sacral support, standard
- Width and depth-adjustable leg guides
- Abduction guidance

Options/equipping possibilities

- Various head supports
- Mygo Max seating shell padding in 4 colours: orange, blue, pink, grey
- Sacral support, angle-adjustable
- Various lateral supports
- Various pelvic supports
- Various belts
- Arm supports, height and angle-adjustable
- Various trays
- Foot supports, height-adjustable
- Sandals
- Various mobility bases

Technical data	
Age	12–18 years
Max. load	85 kg (187 lbs)
Seat depth (min./max.)	410–560 mm (16.1–22.0 in)
Seat width (min./max.)	345–500 mm (13.6–19.7 in)
Back height (min./max.)	490–620 mm (19.3–24.4 in)
Lower leg length (min./max.)	330–510 mm (13.0–20.1 in)
Chest width	230–380 mm (9.1–15.0 in)
Arm supports height	215–350 mm (8.5–13.8 in)
Seat height to foot cup (min./max.)	330–510 mm (13.0–20.1 in)
Footplate angle (dorsiflexion)	-10° to +10°
Seat tilt	-25° to +10°
Back angle	-25° to +10°
Max. windswept deformity compensation	Up to 20°
Lower leg angle	-15° to +30°

EAS

Early Activity System – positioning aid

The Early Activity System (EAS) supports the correct development of the child starting in the first few months of life. The mat with the various support elements provides support for the child in the most important positions (lying on the back, side and abdomen, sitting, kneeling, etc.), thus facilitating therapy or interim positioning.

Application
- At home
- Out and about
- In therapy

Special features
- Posture and positioning support even in early childhood
- Flexible shaping of supports with hook-and-loop connectors
- Lightweight: easy to transport and carry
- Enclosed therapy handbook with suggestions and ideas for therapeutic play

Art. no. 414C89=30000

Standard model

- 1 size
- Colours: fixed colour combination of the padding elements (orange, pink, blue, green)
- Soft mat
- Flexible padding elements in 7 different shapes
- Transport bag
- Therapy handbook

Options/equipping possibilities

- Padding elements can be reordered

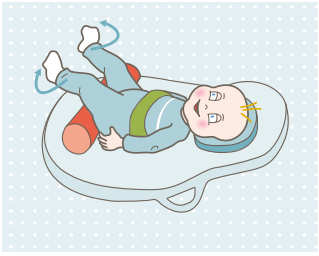
Soft mat, flexible padding elements

Combination possibility

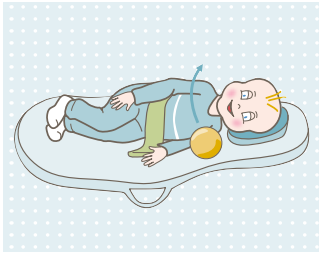
Transport bag

Therapy handbook

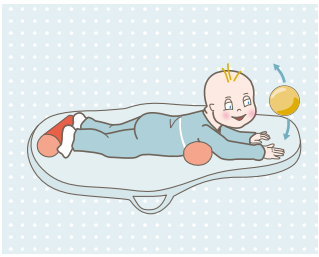
Application examples



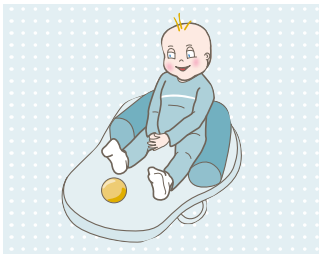
Supine position



Lying on the side



Prone position



Sitting with legs extended

Technical data	
Age	0–36 months
Max. body height	100 cm (39.3 in)
Max. load	15 kg (33 lbs)
Floor mat width/length	760/950 mm (29.9/37.4 in)
Seat wedge:	
Seat height/depth	190/300 mm (7.5/11.8 in)
Seat width (min./max.)	200/250 mm (7.9/9.8 in)
Support roller pad:	
Small width/length	60/600 mm (2.4/23.6 in)
Medium length	700 mm (27.6 in)
Diameter	80 mm (3.1 in)
Torso wedge:	
Width/length	270/208 mm (11.0/8.2 in)
Angle	7.5°
Positioning straps width/length	80/660 mm (3.2/26.0 in)

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TABALUGA is based on an idea by Peter Maffay,
Gregor Rottschalk, Rolf Zuckowski and Helme Heine.
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