

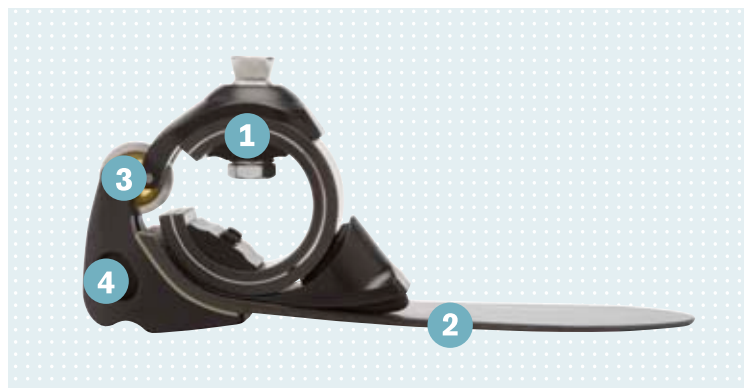
1C40 C-Walk

Energy & Comfort for Everyday Life

Quality for life



Energy & Comfort for Everyday Life



Design

- 1 Carbon C-spring
- 2 Carbon base spring
- 3 Control ring
- 4 Heel element

Ultimate performance in sports is spectacular. It attracts attention. But just how high are the actual requirements in diverse and changing situations of everyday life?

Different qualities are in demand, in any situation and under a wide variety of conditions. Carbon spring feet offer high energy return. But for the everyday life of the prosthesis wearer, the highest energy return percentage is not the only crucial factor. The questions "how" and "how much" in various stages of the gait cycle are of equal importance.

Walking at various speeds, going up and downhill, feeling safe on uneven and varying surfaces while experiencing a harmonious rollover – these are the complex requirements for a modern carbon spring foot. The C-Walk meets these requirements. For both older and younger users, across the full range of various activities.

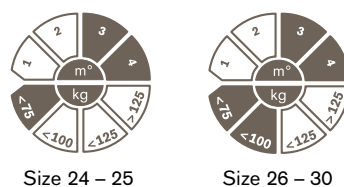
Benefits

- Controlled plantar flexion of up to 12°
- Multi-axial flexibility to compensate uneven surfaces
- Reduces stress on the sound limb
- Flexible shock absorption at heel strike
- Physiological rollover
- Smooth transition from stance phase to swing phase
- Comfortable uphill and incline walking

Indication and Area of Application

The C-Walk is suitable for prosthesis wearers with transtibial, knee disarticulation, transfemoral and hip disarticulation amputation levels with moderate to high activity levels. For users who want a foot with multi-axial mobility, flexible shock absorption at heel strike and comfortable uphill and incline walking.

Recommended for amputees with mobility grades 3 and 4 – unrestricted outdoor walkers and unrestricted outdoor walkers with particularly high requirements.



Order Information

The 1C40 C-Walk is available in the sizes 24 to 30 and in two different footshell colours – beige (4) and light brown (15).

Article number (order example):

Reference Number	=	Side	Size	=	0	=	P	/	Colour
1C40	=	L	26	=	0	=	P	/	4

Biomechanical Aspects

Technology

With its spring arrangement, the C-Walk creates a virtual joint similar to the physiological ankle. This effectively supports the movement of the lower leg in the mid-stance phase.

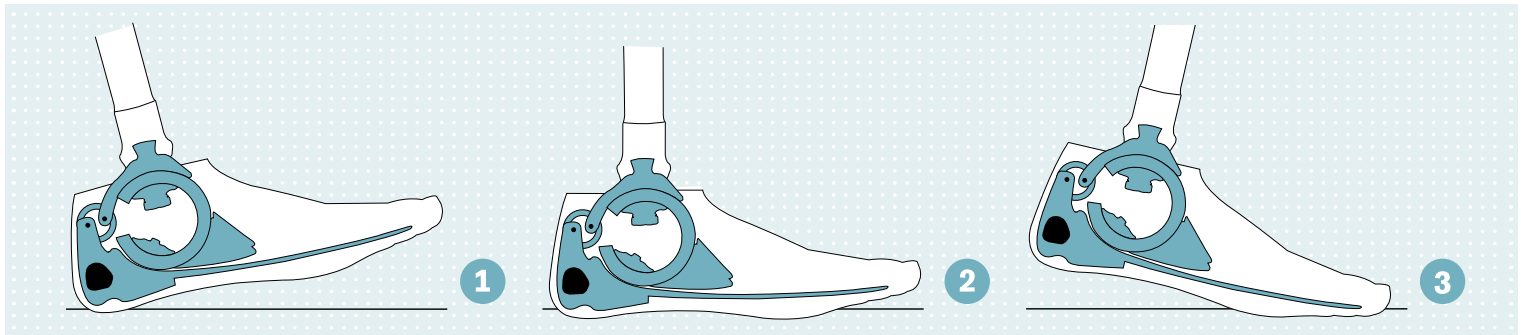
The C-spring and base spring are dynamically linked by a control ring. This systematic interaction allows the user to walk comfortably and dynamically.

1 At heel strike the heel element acts as a lever that compresses the C-spring. This assures elastic cushioning and fast ground contact via the base spring. During heel strike, the base spring performs strong plantar flexion.

2 In the mid-stance phase, the C-spring relaxes and supports the rollover with its stored energy. The opening of the C-spring is controlled via the control ring, so that forefoot resistance is systematically increased during the rollover: tension builds up in the base spring.

3 The base spring stores the energy which is then released during the transition to the swing phase.

Extended support – in terms of time and the length of the base spring – ensures a smooth transition from the prosthesis side to the sound leg.



Characteristics of ground reaction force

The development objective for the C-Walk was to emulate the natural gait pattern as closely as possible. This protects both the amputated and sound side. Long-term damage to the locomotor system can be effectively reduced as a result.

Walking is based on ground reaction forces. A direct comparison in the graphic shows the force progression on the prosthesis side with the C-Walk largely corresponds to the side with the sound, limb.

The result for the amputee: load applied on both legs is more evenly distributed, therefore the gait is more symmetrical.

