

Otto Bock®

QUALITY FOR LIFE

**Patents**

The 7E10 is covered by the following patents:

China: ZL 00121494.2  
Germany: D.B.P. DE 199 35 203  
Japan: Patent No. JP 3 708 797  
Russia: RU 2 222 291  
USA: Patent US 6,322,594

European Patent:  
EP 1 072 240 in CH, DE, ES, FR, GB, IT, NL and SE,

Patents pending in Brazil and Germany.

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Velcro is a registered trademark of Velcro Industries. ©2007 Otto Bock HealthCare LP. • 08021425.1 • 10/07



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# Helix<sup>3D</sup> Hip Joint System

Product Information

# Open up New Dimensions

Thanks to its unique features, the Helix<sup>3D</sup> offers the user noticeable advantages

## + Patented Multi-axis Joint Structure

- Produces a three-dimensional hip movement to compensate for pelvic rotation and promotes a symmetrical and natural gait pattern (Figure 1).
- Allows for leg length reduction during the swing phase. This helps reduce the risk of falling and increases security.
- Improves sitting posture and reduces pelvic obliquity to a minimum.
- The 7E10's large flexion angle makes it easier to accomplish activities of daily living, such as putting on shoes or getting into a car.

## + Spring and Hydraulics Combination

- It is noticeably easier to initiate swing phase with the hip joint's integrated expansion springs. Energy stored during the stance phase is used during the swing phase initiation to compensate for the missing or deficient hip muscles and to reduce amount of energy needed for walking (Figure 2).
- Controls the three-dimensional movement of the hip joint during walking that closely resembles the normal hip movement in the sound leg.
- Allows for a dampened, controlled heel strike in the stance phase with significantly reduced hyperlordosis as well as a natural hip joint extension. Therefore, the user can accomplish a more controlled, smooth roll-over on the prosthesis under full load.
- Allows for an individual stride length setting, which controls the pendulum motion in the swing phase.

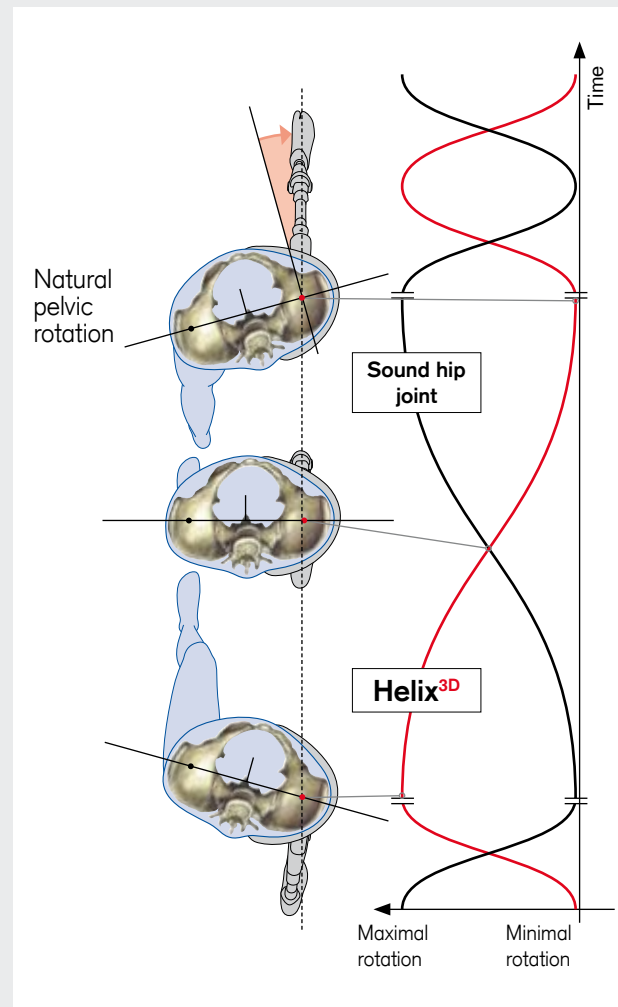


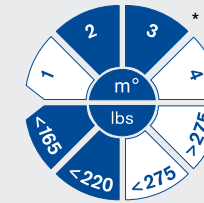
Fig.1 Compensation of pelvic rotation with Helix<sup>3D</sup>



Fig. 2

## Indication and Field of Application

The Helix<sup>3D</sup> Hip Joint System is suitable for hip disarticulation and hemipelvectomy patients. It offers patients maximum security and function for a wide range of everyday activities.



Recommended according to the Otto Bock MOBIS Mobility System for patients with Mobility Grades **2** and **3\*** (restricted outdoor walkers, unrestricted outdoor walkers). Maximum body weight: **220 lbs/100 kg**.

## Helix<sup>3D</sup> – Systematic Fitting

When choosing components for a complete prosthesis, the practitioner must choose a knee joint that provides 1) absolute stability and reliability at heel strike, 2) stance extension damping, and 3) swing flexion damping.

Otto Bock requires that the Helix<sup>3D</sup> Hip Joint may only be combined with the C-Leg<sup>®</sup> and the prosthetic feet specified for use with the C-Leg<sup>®</sup> and other components specified in the Instructions for Use.

The Helix<sup>3D</sup> Hip's functions are specifically adapted to the characteristics of selected Otto Bock components. This gives the user the greatest amount of security and the advantages of each component.

## Fabrication Services

With decades of Fabrication expertise, Otto Bock's Fabrication Services has the experience and knowledge to fabricate a hip disarticulation or hemipelvectomy socket for your patient. Our technical expertise is complemented by our attentive customer focus so that a team of professionals work together to ensure the job meets your specifications.

\*The Otto Bock MOBIS<sup>®</sup> Mobility System is not intended to be used in the U.S.A. as a guide to obtaining reimbursement for prosthetic components.

Helix <sup>3D</sup> Hip Joint	7E10=L-1.2 7E10=R-1.2	
Adapter	4R52, 4R56, 4R56=1, 2R30, 4R56=2, 4R57	
C-Leg <sup>®</sup> Knee Joint	757L16-2, 4E50-2, 3C98-1, 4X160=1.2, 4X160=5.6	
Tube Adapter	2R80=*, 2R81=*, =110, =160, =200, =240, =160, =200, =240	
Prosthetic Foot	1C40, 1E56, 1E57, 1C31, 1D35, 1A30, 1D10	