

Integral Leg Prosthesis



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Integral Leg Prosthesis

Patient Information



We take care of your mobility

Dear patient,

An amputation in the upper leg area is a significant moment in anybody's life. For this reason, your desire for mobility and active participation in all areas of life is our top priority.

We understand the goal of prosthetic care in fulfilling these wishes and recovering the unrestricted ability to walk.

On the following pages, we would like to introduce our response to your needs: the newest innovation in the field of thigh prostheses, the Integral Leg Prosthesis.

Freedom of movement and quality of life are given a whole new meaning.



INNOVATION

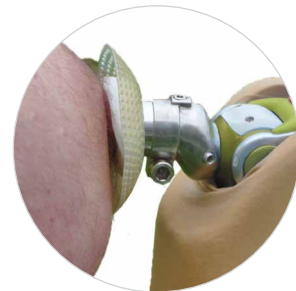
What is the Integral Leg Prosthesis?

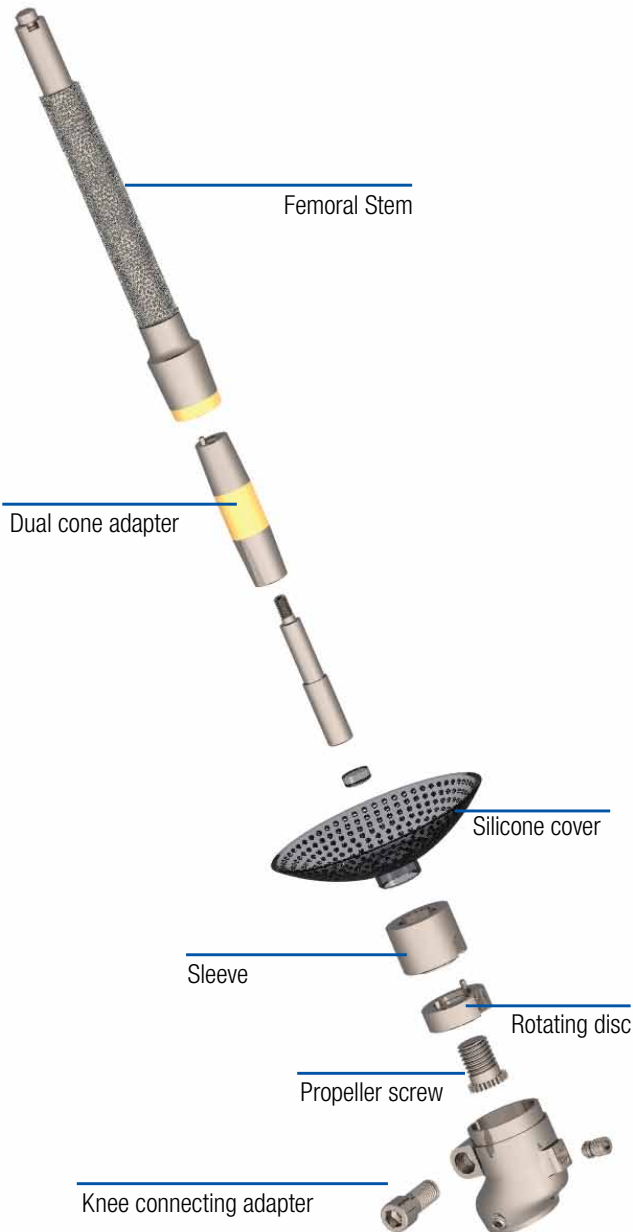
The Integral Leg Prosthesis is a new type of prosthetic care for above-the-knee amputees making a conventional prosthesis shaft unnecessary.

The Integral Leg Prosthesis is modelled on the anatomy of the human body and takes the load back to the thigh bone and hip joint when walking.

OrthoDynamics GmbH has many years of experience in the field of endoprosthetics and the use of state-of-the-art materials which makes this type of care possible.

The Integral Leg Prosthesis is implanted directly into the thigh bone and facilitating a safe connection between the patient and the prosthesis.





TECHNOLOGY

How is the Integral Leg Prosthesis constructed?

The Integral Leg Prosthesis is made up of several modules which can be divided into an inner (endo) and an external (exo) module. The Endo-Module, the so-called femoral stem, is directly implanted into the thigh bone (femur).

The special feature of the implant is the patented Spongiosa-Metal® II surface. Bone grows through this three-dimensional grid structure (osseointegration), providing secure fixation of the prosthesis.

A dual adapter connects the endo and exo modules. Fixed internally, it leads out of the stump and is fitted with the knee connection components on the outside.

The silicone cover is used to protect the exit hole (stoma). The cone sleeve and the rotation disc serve as connection for the knee-lower leg prosthesis system.

All other components can then be quickly and easily linked to the Endo-prosthesis using the knee connection adapter (see picture on the left).

What are the advantages of the Integral Leg Prosthesis?

MOBILITY

- Allows full freedom of movement at all levels
- Stump is not forced into a predetermined form
- Muscular strength can be developed freely
- Freedom of movement is not restricted by the interfering edges of a prosthesis shaft regardless of whether you are sitting, standing or walking
- Less feeling of weight
- More control over prosthesis

NO SHAFT

Strength is directly transported from the bone to the prosthesis enabling its precise handling. Using the Integral Leg Prosthesis puts the hip joint under strain in a natural way and it also counteracts decalcification of the bone. In combination with an improved perception of ground conditions, the Integral Leg Prosthesis facilitates a secure and harmonious walking pattern.



EASY HANDLING

The Exo-prosthesis can be attached and removed completely within a few seconds when seated. Possible variations in the volume of the stump have no effect on the prosthesis' fit.

No skin irritations due to friction, sweat or heat occur, meaning the prosthesis can be worn for longer periods without pain or discomfort and mobility is not restricted at any time.





SURGERY

How does the operation take place?

The implantation of the Integral Leg Prosthesis is carried out in two surgeries which are each performed under general anaesthetic.

In the first operation, the lower end of the thigh bone is uncovered and the femoral stem is implanted. When the implant is correctly positioned, the sleeve is fitted and the stump is closed up again. In the following four to six



to eight weeks, osseointegration, that fixes the implant to the bone, will take place.

In the second operation, the circular skin opening (stoma) is created. The dual cone adapter is connected to the internal femur stem through this stoma. The remaining components of the prosthesis can then be attached externally.

Partial weight-bearing and the adjustment of the prosthesis can take place as early as a few days after the second operation. This happens under the supervision of physiotherapists and orthopaedic technicians.





What do you need to think about?

Experiences with more than 60 satisfied Integral Leg Prosthesis users show that the Integral Leg Prosthesis offers significant advantages compared to standard shaft prostheses. Sensible and attentive handling of the Integral Leg Prosthesis means that complications can largely be avoided.

- Particular attention should be paid to the stoma through which the dual cone adapter leaves the body. Under normal hygienic conditions and with regular, daily care of the stoma and the Exo modules, the risk of an infection is very low.
- Excessive rotation of the prosthesis should be avoided on principle. If large levels of strain should occur, a shear pin on the inside of the dual cone adapter protects against a bone fracture. The system yields and the bone remains undamaged.
- The implants are composed of a cobalt chrome molybdenum cast alloy (CoCrMo) which is coated with a titanium niobium coating (TiNb). These materials are considered to be very biocompatible in endoprosthetics and only trigger allergic reactions in extremely rare cases. No permanent medication is required in connection with the Integral Leg Prosthesis.

For more information please visit:

Please do not hesitate to contact:

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