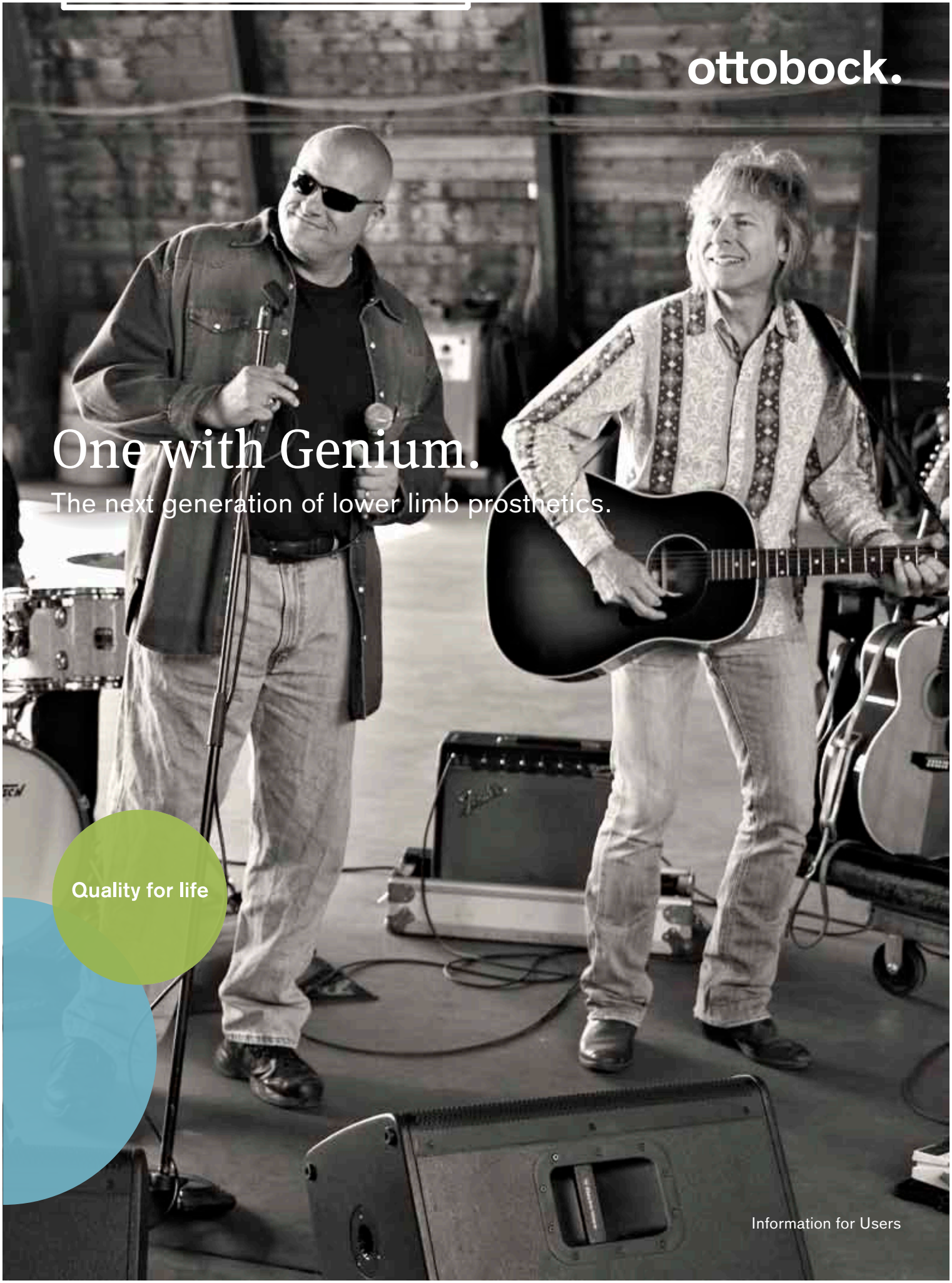


ottobock.

One with Genium.

The next generation of lower limb prosthetics.

Quality for life

Information for Users

Anyone who has ever really rocked knows the challenges: only if the group plays together well can a convincing sound and performance be achieved. This requires top performance. By everyone.

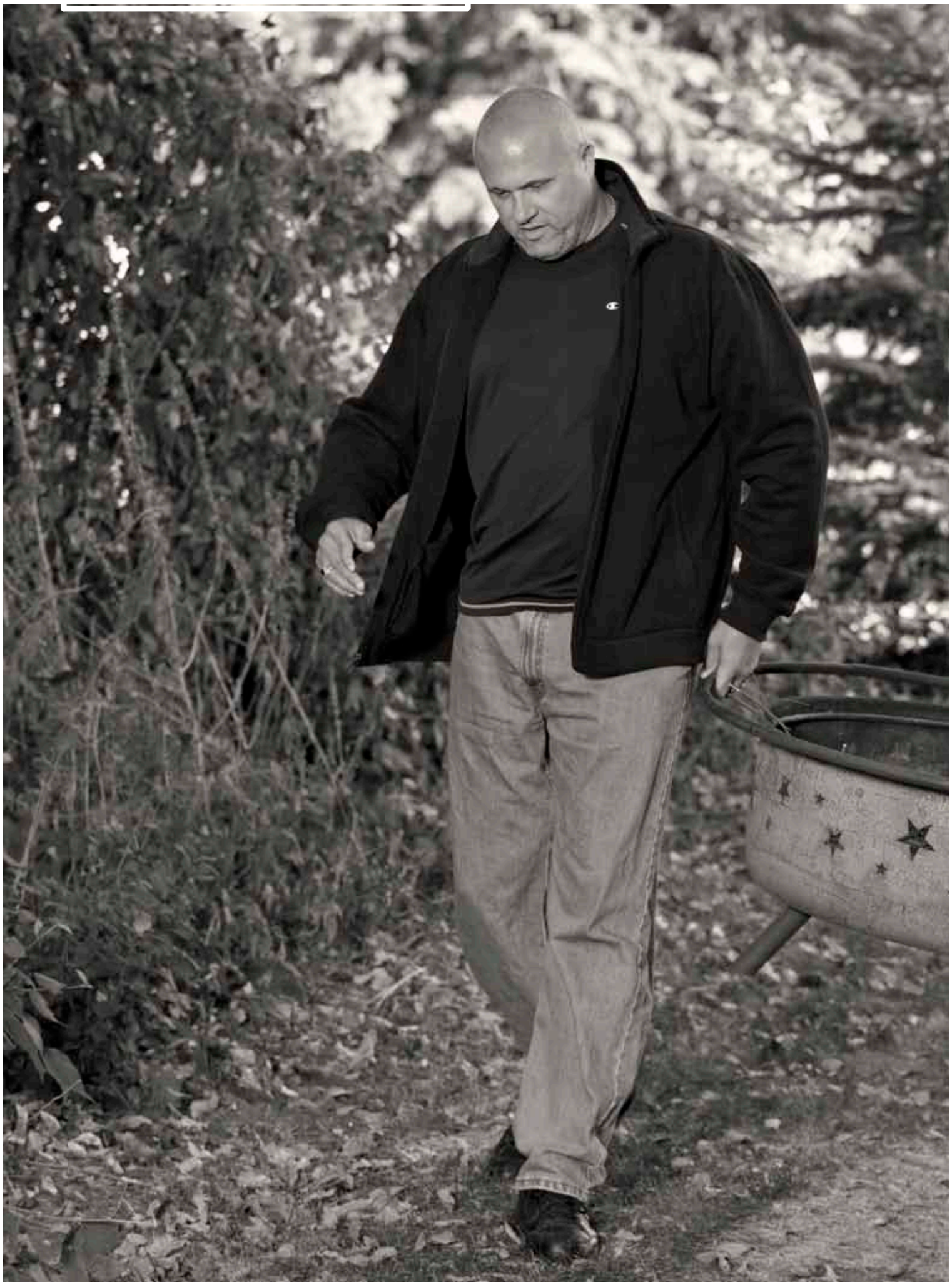
Keep on rocking.

Kevin

Making music, coaching football players, conducting training sessions, writing a book… Kevin has a lot to do. And that's just what he does in his spare time. Kevin is a police officer. He loves his job. Talking to others is his favourite part. Kevin is convinced that one can only help people by listening to them and recognising their problems. He likes to help others. Sometimes he visits people in hospital who need an amputation after an accident or a crime. He talks to them about his own experience. He gives them courage. And his efforts are recognised: some time ago, his dedication was rewarded with the honour of "National Officer of the Month".
A great experience.

Genium.
Walk naturally.

The Genium – Bionic Prosthetic System is the intelligent next-generation leg prosthesis system:
Extensive research and development, 14 years of practical experience with the C-Leg® (proven as the safest leg prosthesis system in the world) and many years of networking with users and technicians have led to a leg prosthesis system far superior to all others in terms of workmanship and functionality: with the Genium, everything happens in real time – and certain situations are even anticipated. Thanks to the latest in microprocessor, sensor and control technology, using the Genium is straightforward, intuitive and incredibly flexible. This results in surprising movement possibilities for you: safely walking backwards, climbing stairs step-over-step, balanced standing even on inclines and much more...
The new Genium comes closer than any other to recreating a virtually natural, physiological gait pattern. Everyday mobility and quality of life have been entirely redefined for you.

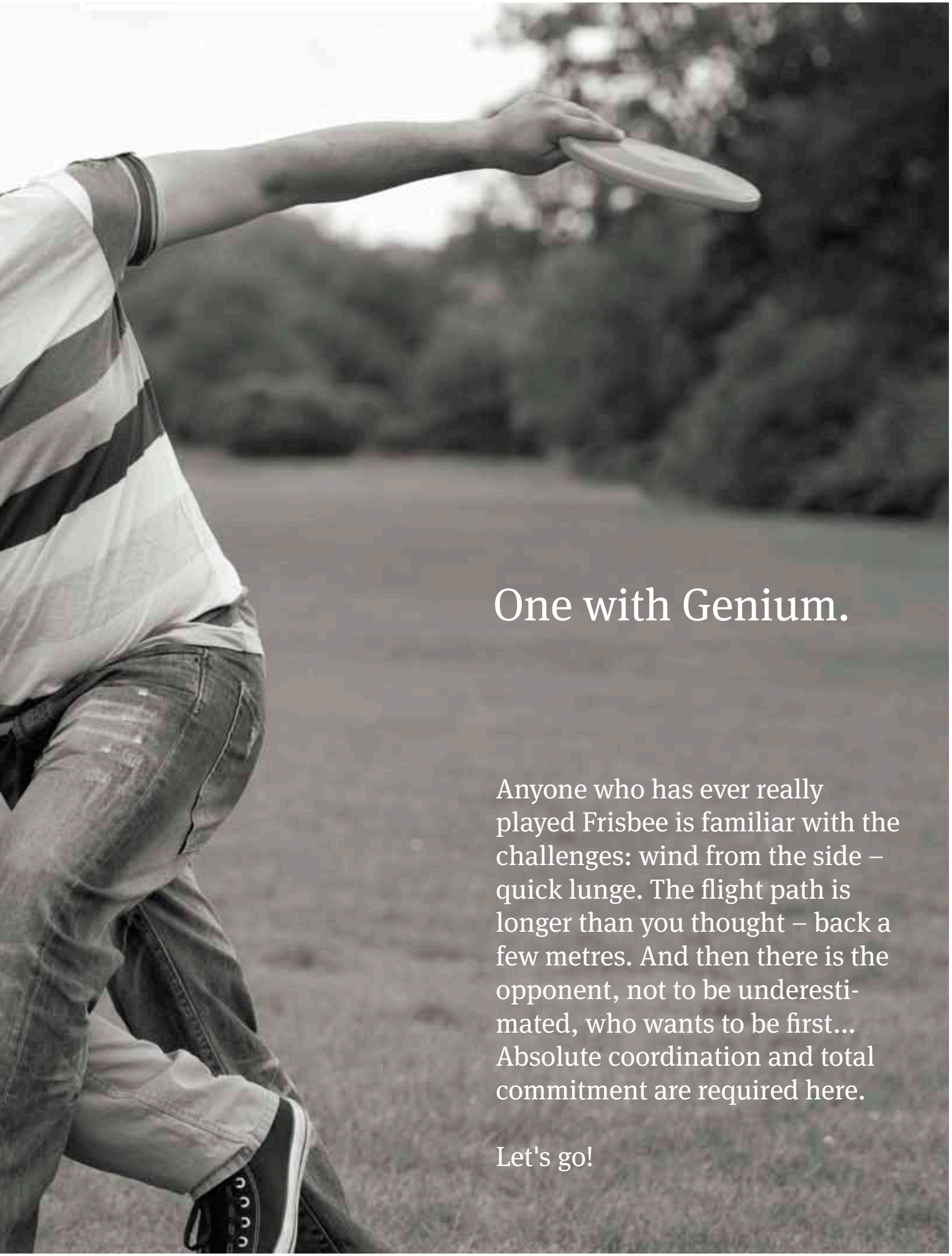


The big step:
Optimised Physiological Gait

Sauntering through the city or taking a brisk walk through the woods – the best way to walk is with a natural, physiological gait. It is precisely this gait that the Genium – Bionic Prosthetic System virtually duplicates. Step by step, phase by phase – no matter on what surface, no matter at what speed. It's unique: natural walking that also helps protect the rest of the user's body, increases comfort, and offers astounding mobility in day to day life.

How it works:
Optimised physiological gait (OPG) reduces ground reaction forces. This means damping is improved and knee flexion is promoted. Subsequent orthopaedic problems are minimised as a result. The amount of effort required at the start of the stride is reduced as well. With OPG, walking uphill, downhill or on uneven surfaces is easier and safer while the number of compensating movements is drastically reduced.

OPG offers increased safety when walking backwards or making lunges. Whether short, long, slow, fast, regular or irregular steps are taken, the quality of the swing phase is comparable to the natural model – and all of this is possible with the Genium, which also adapts automatically to different shoes and clothing.



One with Genium.

Anyone who has ever really played Frisbee is familiar with the challenges: wind from the side – quick lunge. The flight path is longer than you thought – back a few metres. And then there is the opponent, not to be underesti-mated, who wants to be first... Absolute coordination and total commitment are required here.

Let's go!

Upstairs, Downstairs: The Groundbreaking Stair Function.

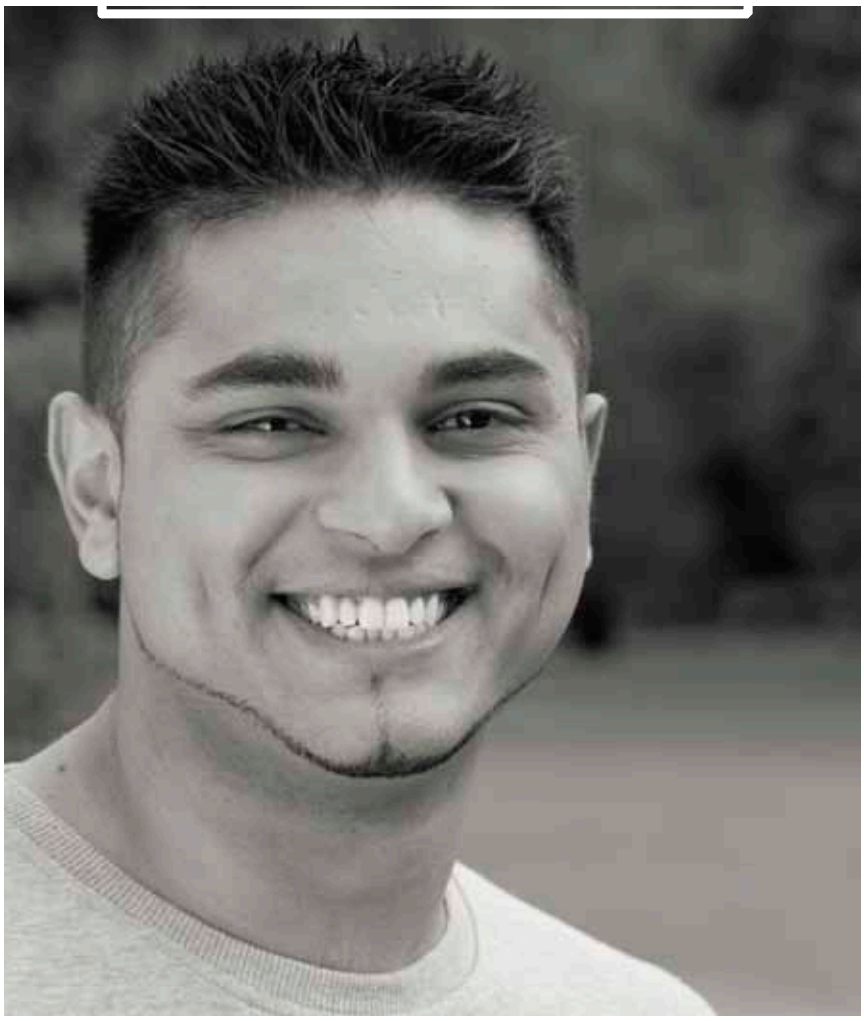
A quick dash down the stairs because you can hear the underground and the escalator is out of order? Upstairs in a hurry as others are setting the pace?

Stairs in particular show just what is possible with the new Genium – Bionic Prosthetic System:
The stair function allows stairs to be negotiated step-over-step. A flowing movement pattern going upstairs as well as downstairs.
A key function for greater everyday freedom.

Just Step Over: The Amazing Obstacle Function

Found a bargain at the antique shop. Now it's time to carry it out and take it home. But what about all this stuff lying about on the floor? Thanks to the obstacle function, the problem is far from insurmountable: just step over! Of course the same thing applies at home, for example when children's toys or the vacuum cleaner are in the way. Or at work. Wherever you are...

The new Genium – Bionic Prosthetic System offers new possibilities here too, opening up new horizons and bringing diversity to nearly all activities of daily life.



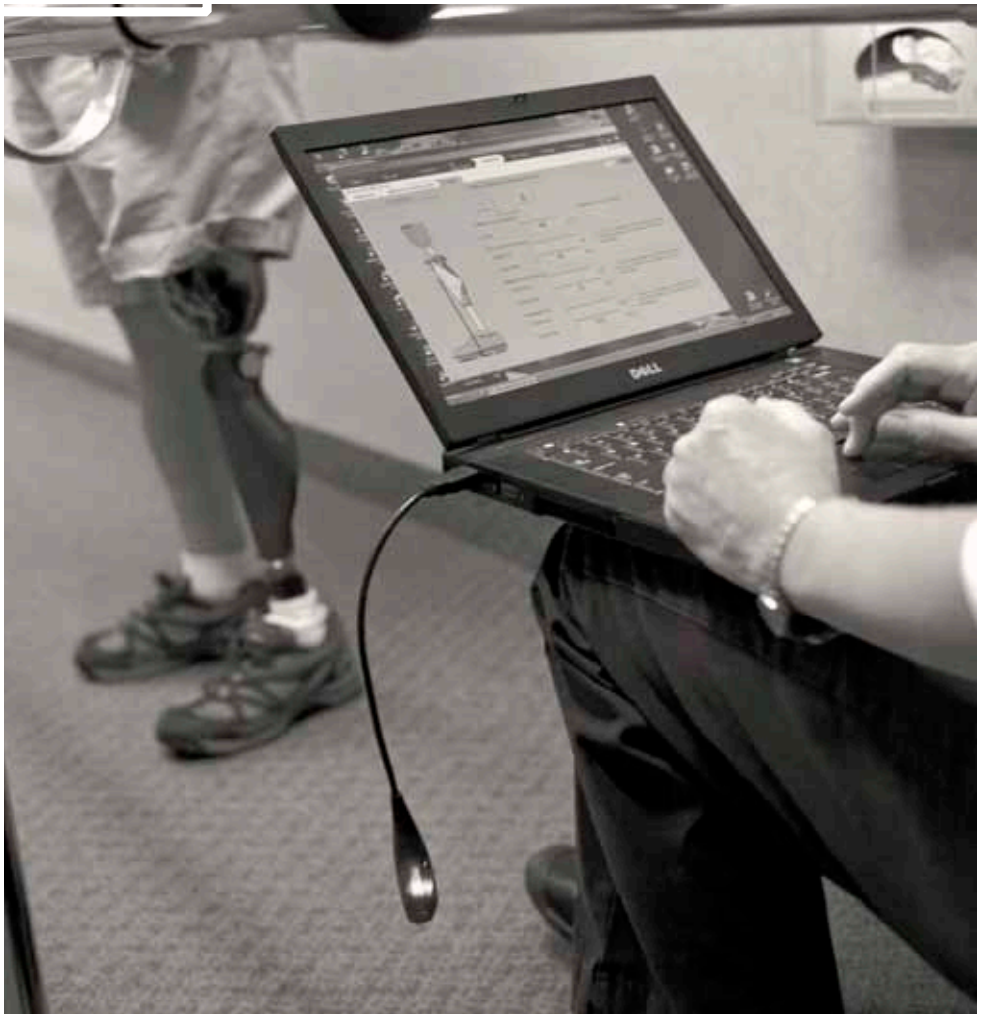
Hamed

He injured one of his legs as a child. Came to Germany where an attempt was made to save it. But it was in vain. It was a difficult time: a foreign culture, a foreign language – and a prosthesis. Hamed was twelve years old. He found his way, finished secondary school and vocational training. Hamed played on the national sitting volleyball team for a long time. But today he focuses entirely on his job. He still plays volleyball – with his colleagues at work. Standing up.

When Hamed has time, he spends it doing things with friends. Or out in nature: going on bike tours, taking a quick run down to the lake or playing Frisbee in the park…

The Convincing Standpoint:
Stance Function – Also on Inclines

During sports, when standing in line outside the cinema or renovating with friends...
The stance function of the Genium – Bionic Prosthetic System is more natural, intelligent and safe. This is because the Genium itself differentiates between dynamic and static situations – so it knows when you are walking and when you are standing. It thereby combines the advantages of various prosthetic systems. It recognises when flexion is required and when to support weight while at rest. This permits a natural distribution of body weight and balanced load for the first time. No matter whether you are just standing there or doing something while standing up – on inclines or uneven surfaces too!



Genium:
Of Technology and Technician

Numerous suggestions made by users and prosthetists were taken into account in the development of the Genium – Bionic Prosthetic System. In the end, this resulted in a groundbreaking leg prosthesis system that, with highly modern microprocessor-controlled technology, puts people first with their individual everyday needs.
The Genium – Bionic Prosthetic System is assembled and adjusted to precisely meet your individual needs. Our professional local partner makes sure of that: your prosthetist. Talk to him. He knows you and, based on your individual lifestyle, your needs and the challenges you face, is able to evaluate exactly how the Genium – Bionic Prosthetic System will work for you.

Genium: Details

Gyroscope, Acceleration Sensor and Angle Sensor
The gyroscope and the acceleration sensor allow the acceleration and position of the Genium in space to be measured. An angle sensor determines the flexion angle and flexion angle speed of the joint.

Knee Moment Sensor
The knee moment sensor supplies data about the knee moment and therefore provides important information for precisely determining the forces acting on the prosthesis.

Carbon Fibre Frame
In order to withstand the variety of day-to-day stresses, the frame is made of carbon fibre – an especially strong, high-grade and lightweight material.

AXON Tube Adapter
Additional sensors are integrated in the tube adapter. They not only measure the ankle moment but also the vertical force acting on the joint. The sensor data help make a natural movement pattern possible.

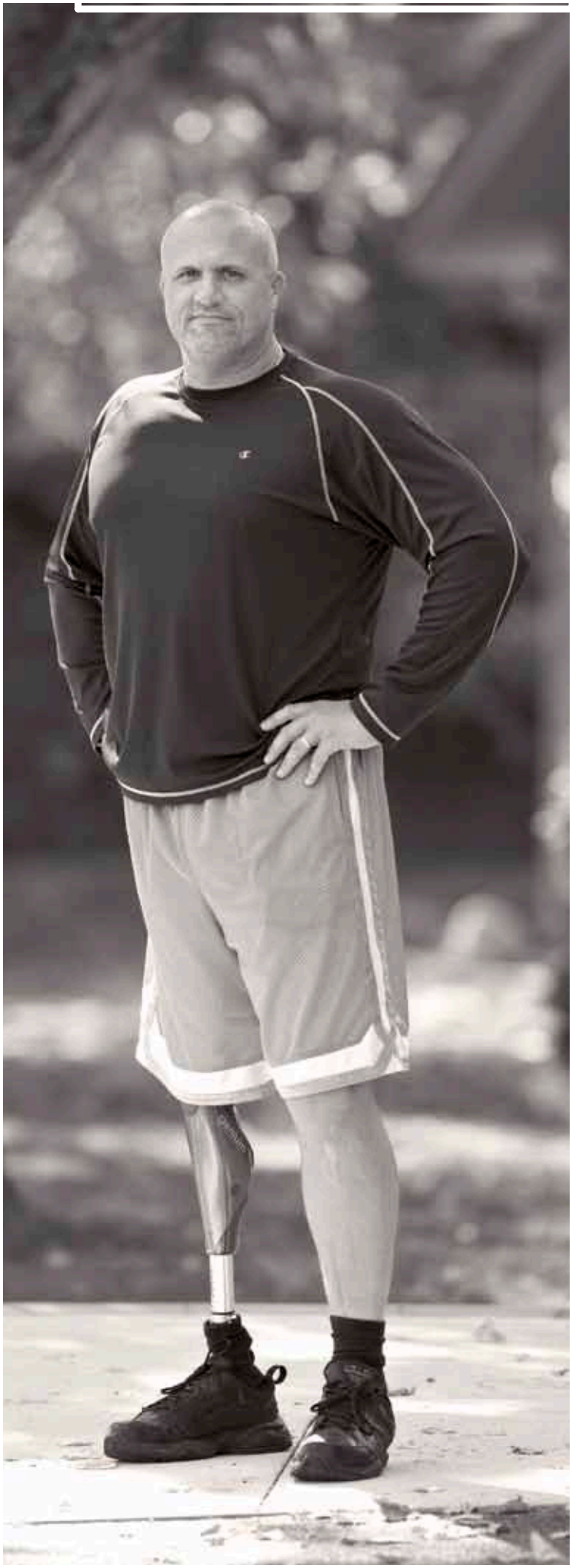
Pyramid Adapter
The pyramid adapter connects the Genium to the prosthetic socket.

Hydraulic Cylinder
The hydraulic cylinder controls the Genium. It generates movement resistance for the stance and swing phases.

Bluetooth®
Integrated Bluetooth® technology permits straight-forward communication with the joint.

Battery and Electronics
In the Genium, the battery and electronics are enclosed and protected by the frame. The integrated microprocessor coordinates all measurement and control processes.

Inductive Charging
The inductive charger is connected with magnets to the back of the knee joint. This technology permits charging through clothing or cosmetic covers.



Questions and Answers about the Genium

What are the key advantages of the Genium for the user?
The Genium leg prosthesis system allows you to achieve a virtually natural, physiological gait pattern. This not only protects the contralateral side, but the entire locomotor system because fewer compensating movements are needed.
The Genium is also the only passive leg prosthesis system that allows you to climb stairs step-over-step. Other advantages include crossing obstacles, even with the prosthesis as the leading leg, and safely walking backwards. The intelligent stance function permits relaxed standing, also on inclines and uneven surfaces.
With all these types of movement, less concentration on the prosthesis is needed because it is used intuitively. Five different MyModes – preset individual movement patterns – can be selected with a remote control.

For what users is the Genium leg prosthesis system suitable?
The Genium is suitable for amputees with mobility grade 2–4 and a body weight of up to 150 kg. Please contact your prosthetist for more information on the Genium – Bionic Prosthetic System.

What is the battery capacity of the Genium?
Intelligent energy management integrated in the Genium results in a battery capacity of approx. 4 days when fully charged. However, charging the knee joint overnight every day is recommended.

What happens when the battery is drained?
Vibration messages provide a timely warning when the battery capacity gets too low. Once the battery is drained, the Genium automatically switches to safety mode.

Can I just try out the Genium?
Many certified fitting facilities offer a trial fitting. Just ask your prosthetist. The trial fitting takes place over a predetermined period of time and is monitored by Ottobock when needed.

What else is included in a prosthetic fitting?
It includes all components from the foot to the knee joint system, including the socket customised to your individual needs by the prosthetist. Of course the assembly and setup of the system are also included, as well as regular service inspections.

How long does it take to learn how to use the Genium?
This will vary. Many users can climb stairs step-over-step on the first day with the Genium. On the other hand, it can also take several days or weeks – depending on the fitness level and motivation of the user – until using and walking with the leg prosthesis system has been internalised.

www.walking-with-prothesis.com/genium

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