

Features/advantages of the innoSTEP-WL

The wireless foot drop system innoSTEP-WL is an innovative and simple to use device, which can compensate the foot drop and lead to a better gait pattern.

- The ergonomic, flat, unobtrusive and modern design enables the innoSTEP-WL foot drop system to be worn underneath any sorts of clothing.
- The magnetic catch allows patients to handle it easily and independently.
- The innoSTEP-WL can be worn barefooted and can be used as an adjustable walking aid.
- The systems adjusts itself automatically to the patient's gait pattern.
- The foot drop system can replace orthotics or peroneal rails.
- The stimulation increases the blood circulation and can reduce the risk of muscular atrophy.
- Accelerometer (acceleration sensor) and gyroscope (gyroscopic stabilizer) allow it to detect the ideal trigger time for the stimulation.
- The foot is lifted during the swing phase and the gait can become more fluid.

Competence and experience for a better quality of life

HELLER MEDIZINTECHNIK GmbH & Co. KG is active in the field of medical engineering for more than 20 years. The company has been successfully operating within the specialized area of electrical nerve and muscle stimulation.

The innovative company, which is based in Germany, focuses on customer-friendly service for doctors and patients alike by providing state of the art products for electrical stimulation which are easy to operate. The range of services includes TENS, EMS, FES, CMD, peroneal stimulation, bio-feedback and incontinence therapy.

With our competence we want to help patients to increased mobility and a better quality of life.

The electrical therapy quickly conquered doctor's offices and hospitals. It has been playing an important role within the modern pain therapy for years and its effectiveness is backed by numerous scientific studies.



HELLER MEDIZINTECHNIK GmbH & Co. KG
is prequalified according to § 126 SGB V.

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The choice for better mobility and vitality



foot drop system innoSTEP-WL

HELLER MEDIZINTECHNIK GmbH & Co. KG
Your competent contact in the range of
functional electrical stimulation (FES)

Mobile with foot drop



We ensure
mobility...

innoSTEP-WL

The wireless foot drop system

- Walk barefoot without heel switch
- Simple to use
- Flat and unobtrusive design
- Can replace or complement orthotics and peroneal rails
- Increased mobility - Higher quality of life

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Effect

The innovative foot drop system innoSTEP-WL offers increased mobility, more freedom and a higher quality of life. By using functional electrical stimulation (FES), the system stimulates the peroneal nerve around the head of fibula of the affected leg and causes the muscles to lift the foot. The foot drop system should be used as early as possible during the rehabilitation process to achieve a sustained treatment success.

The goal of a long term use is the recovery of the damaged nerve and a more evenly gait. By using a targeted stimulation of the tibialis anterior muscle and the repeatedly sent informations to the central nervous system the natural motion pattern can be relearned and performed self-contained. At the same time, gait safety, step length, walking speed, stamina and knee flexibility are significantly improved.

We ensure
mobility...



Function

The innoSTEP-WL for foot drop compensation uses advanced sensor technology and smart algorithms which accurately control the time and duration of the electrical stimulation. Parameters can be adjusted comfortably with the included bluetooth-connected remote, featuring a backlit display. Electrodes are used to deliver electrical impulses to the peroneal nerve, tibialis anterior muscle and other muscles involved in the foot lifting. The foot is lifted during the swing phase and a stable, natural and safe gait is made possible. The nerve sends the signal to the muscles, which will lift the foot accordingly. The repeatedly transmitted impulses are perceived by the neuronal structures (CNS) located in the brain and spinal cord and can contribute to neuronal remodeling. This can permanently lead to a better gait pattern.

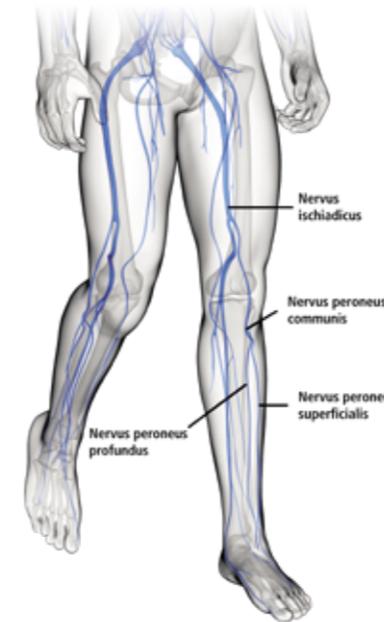
Training mode

The included training mode allows for an additional, passive training while sitting or lying down. This can further support the regeneration and training of the muscles, to reduce muscular atrophy and to retain and improve the local blood circulation.

Indications

- Multiple sclerosis (MS)
- Apoplexy (Stroke)
- Cerebral palsy
- Traumatic brain injury (TBI)
- Incomplete paraplegia
- Disc prolapse
- Familial spastic paraplegia (FSP)
- Parkinson's disease

The innoSTEP-WL can be prescribed by your attending doctor or physician. The prescription can be sent directly to HELLER MEDIZINTECHNIK GmbH & Co. KG. After the health insurance's approval you will be instructed in the handling of the device by a trained medical product consultant. Of course, the innoSTEP-WL can also be purchased.



Foot drop

Foot drop (peroneus paralysis) is a form of damage of the nervus peroneus, which is responsible for the lifting of the foot. It often arises after a stroke, disc prolapse or traumatic brain injury. Multiple sclerosis or other damages to the nerves can trigger foot drop as well. As a result of the damages, the brain is not capable of controlling and coordinating the muscles to lift the foot.

Affected patients can not roll off their foot due to the lack of control over their tibialis anterior muscle. To reduce the risk of tripping, patients need to raise their entire leg higher than usual due to their drooping foot, which is referred to as „equine gait“. A regular forward swing of the leg, like it happens during a natural gait, is impossible for patients who suffer from foot drop. Due to an additional, unnatural malposition of the foot, patients walk on the outer edge of their foot quite often or claw their toes. Every single step demands full concentration. Affected patients have to pay close attention to their surroundings and the ground, every single unevenness can lead to tripping or a fall.

