

NESS L300™
Foot Drop System
For Medical Professionals

NESS L300™ Foot Drop System

*Now, help your patients
walk faster, farther,
with more freedom**

The NESS L300 is an advanced functional electrical stimulation (FES) system that sends low-level electrical impulses to the common peroneal nerve in the leg, stimulating the muscles to lift the foot at the appropriate time during gait. The NESS L300 senses – in real time – walking position, varying gait speed, and changing terrain.

Previous FES systems posed problems: inconsistent electrode placement, bulky leads and wires, complicated control units.

That was then. This is now.

The NESS L300 is the first FES system for foot drop that is adaptive, low profile, wireless, and easy to use, with results backed by research.

*“It’s easy for the physician to use.
It’s easy for the physical therapist to program.
And it’s really easy for the patient to use.”*

Sheri Friedman, M.D.
Neurologist, Neurology Associates of Northern Colorado

* Individual results vary. Patients are advised to consult with a qualified physician to determine if this product is right for them.





The right solution for a range of people

The NESS L300™ may be the solution for patients who have foot drop associated with any of the following upper motor neuron pathologies:

- Stroke
- Multiple sclerosis
- Traumatic brain injury
- Incomplete spinal cord injury
- Cerebral palsy

Benefits beyond a more natural gait

In addition to helping patients regain a more natural gait and, as a result, a more active lifestyle, the NESS L300 may help:

- Reeducate muscles to function without the system (motor recovery)¹
- Prevent or retard muscle atrophy
- Maintain or increase joint range of motion
- Increase local blood flow

“I think it’s great. I think it really allows for a whole new option that people didn’t have before. The L300 ... offers more freedom.”

Beth Fondy, PT



Programmed to succeed

Setting up the NESS L300™ is easy, due in part to the wireless, handheld Clinician's Programmer. The intuitive software allows multiple clinicians to access and manage a patient's database and to configure stimulation and gait settings – even make real-time adjustments to fine-tune gait patterns.

The database stores each patient's gait and usage history, so you can review functional progress. It allows the clinician to display the patient's results graphically, filter data, and organize the data into tables by days, weeks, months, or years.

Your patients see their progress. You see their compliance.



NESS L300™ Foot Drop System

Three small, wireless components

A leading medical technology magazine, *Medical Device & Diagnostic Industry*, has recognized the NESS L300 with its highest award.² Its sophisticated design encourages patient acceptance and reduces the stigma associated with an ankle-foot orthosis (AFO). Once fitted, patients can wear the NESS L300 under most clothing and with most shoes.

The system consists of three small components that communicate with each other *wirelessly*.

1. Comfortable, lightweight Functional Stimulation (FS) Cuff

The FS Cuff holds the stimulation unit, which activates the muscles of the foot. The electrodes are housed on the interior of the FS Cuff and are custom positioned precisely for each patient.

Easy for your patients to put on and take off with one hand, the FS Cuff is compact enough to fit under most clothing and features a special “patella locator” that assures precise, reproducible electrode placement. Its breathable, soft fabric is extremely comfortable. Its expandable, adjustable straps ensure a snug, comfortable fit.

Additionally, a removable hygienic barrier called the “personal panel” allows clinicians to use the NESS L300 on multiple patients throughout the day while maintaining each patient’s respective electrode placement.

2. Innovative, Intelli-Sense Gait Sensor™

As patients walk, the Gait Sensor automatically detects “heel off” and “heel on” positions, as well as different surfaces and speeds. The Sensor then immediately sends radio signals to the FS Cuff to adjust the stimulation to help your patients walk more naturally. Forwards, backwards. Upstairs, downstairs. On grass, on sand.

3. Wireless, portable Control Unit

The Control Unit is used to turn the NESS L300 on and off, and to make fine stimulation adjustments. It interfaces with the Clinician’s Programmer, enabling you to set stimulation parameters, make adjustments that are automatically stored in the patient’s records, track gait history, and monitor patient compliance. Additional clinical features include a biofeedback audio tone that notifies you and the patient when stimulation is administered. A unique clinician’s mode allows you to specify frequency and duration of stimulation.



Supported by clinical research

A recent clinical study showed the NESS L300™ may increase walking speed, improve stability, lower the risk of falling, and provide a greater degree of confidence.³

Another study showed that the NESS L300 offers significant improvements when compared to walking without it:⁴

- 17% immediate mean increase in average walking speed with the NESS L300
- 34% mean increase in average walking speed after 8 weeks with the NESS L300
- 45% improvement in gait asymmetry index after 8 weeks with the NESS L300
- 33% improvement in stride time variability after 8 weeks with the NESS L300 (a marker of gait stability and fall risk)
- Fall frequency decreased by 92% with the NESS L300

An additional study examined patients who used an AFO. 100% of the patients in this study preferred the NESS L300 to their AFO.⁵

“With the L300, patients now have a sense of freedom ... and the opportunity to develop strength and motor control they weren’t previously able to with just a standard orthotic.”

Mathu Hanson, PT
Clinical Coordinator





At Bioness®, we help people with impaired upper and lower extremities regain function and freedom for life

Bioness is committed to helping people become more independent through clinically proven products. We offer advanced technology devices designed to provide functional and therapeutic benefits for individuals afflicted with neurological diseases and disorders such as stroke, multiple sclerosis, traumatic brain injuries, or spinal cord injuries.

Healthcare providers from leading rehabilitation facilities and hospitals across the country are documenting success in patient rehabilitation with the NESS L300™ Foot Drop System and the NESS H200® Hand Rehabilitation System.

As of 2008, seven of the top 10 rehabilitation hospitals, as determined by *U.S. News and World Report*, have implemented Bioness programs as a part of their continuum of care.

*“I’m in greater control of my balance. ...
The device gives one a sense of weight bearing equally.”*

Margaret M.
Stroke survivor since 1996



Help your patients make their move

For more information on the NESS L300™, call us at 800.211.9136, option 2.

“The L300 comes closest to simulating the normal walking pattern of any device that I’ve seen.”

Jay Rosenfeld, M.D.
Physiatrist, Rehabilitation Hospital of the Cape and Islands

