

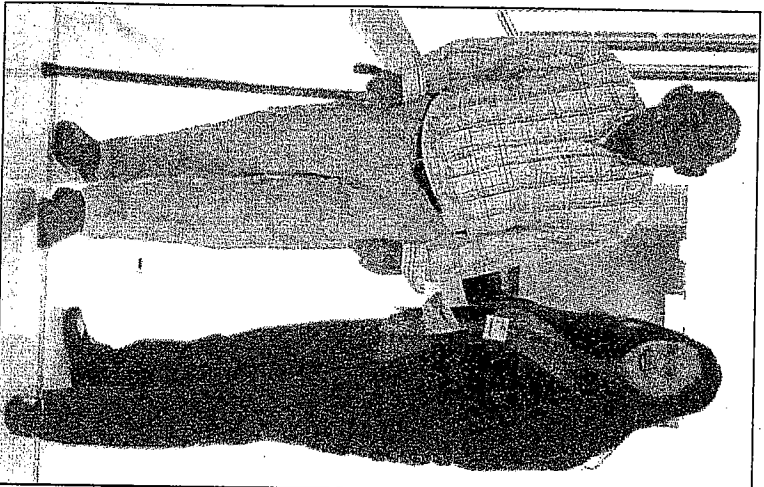
# Unlikely Patient Helped by the NESS L300 System

By ANN B. DeBellis

The NESS L300™ Foot Drop System from Bioness, Inc. has helped

many patients regain mobility they had lost as a result of a neurological condition or event. Most people who are helped by this device are victims of stroke, traumatic brain injury or multiple sclerosis, but not typically those who suffer from nerve damage such as peripheral neuropathy. However, one Leeds man has proved to be an exception to that rule.

Donald Standifer began having problems with his back several years ago and developed problems walking. Severe back pain led to surgery. "They told me that vertebrae were pinching a nerve and that the condition was so bad it could never be reversed," Standifer says. His condition, diagnosed as asymmetric primary axonal



Donald Standifer no longer needs a wheeled chair thanks to the NESS L300. Standifer, left, walks with his physical therapist, Kristen Pritchard.

I would never walk because it would worsen," he adds.

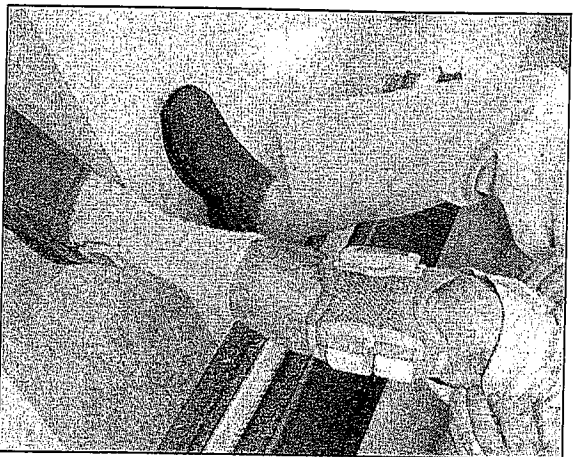
One Sunday, a friend showed him an article in the *Birmingham News* about

a device being used at Health-South Lakeshore Rehabilitation Hospital to help patients with foot drop regain the ability to walk.

"My neurologist got me an appointment there, but they told me they didn't think it would work with a pinched nerve," Standifer says. He didn't want to take no for an answer, and neither did his physical therapist, Kristen Pritchard. "Kristen kept working with my leg until my foot came up. Then she put one of the devices on me, and I was able to walk with a cane."

Approved by the Federal Drug Administration in 2006, the NESS L300 is an advanced neuroprosthetic device that is worn on the lower leg and foot. It provides real-time dynamic gait recognition and allows patients to adjust automatically to different surfaces, walking speeds, and uneven ground. A low-profile pressure sensor, called the gait sensor, is placed in the shoe and detects when the heel is on or off the ground. The sensor wirelessly transmits signals to a stimulation device that is worn below the knee and is designed to stimulate the muscles at just the optimal time to compensate for foot drop. A portable hand-held control unit enables the user to conveniently turn the stimulation on and off when sitting and to fine-tune stimulation intensity.

Bioness representative Anne Lorio says their device typically does not help patients with pinched nerves, but she is happy that Standifer has responded to the treatment and is surprised at how well he is doing. "It is uncommon for a pinched nerve in the lumbar area to respond to this treatment device," she



The NESS L300 is worn on the lower leg and foot and provides real-time dynamic gait recognition. With the system Standifer can lift his left foot, which enables him to walk.

sensorimotor polyradiculoneuropathy and cervical myelopathy, worsened to the point that he had to use a wheelchair to get around. "My neurologist told me I had neuropathy in my leg and that

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says. "There are a lot of those people who won't be helped by the NESS I300, but it is a good idea to send them to be evaluated in case it works."

Pritchard agrees. "Mr. Standifer was barely ambulatory when he came to us and was falling many times a day," she says. "Based on Mr. Standifer's success, I would urge doctors to refer patients who may be candidates for this treatment for evaluation at a rehab facility that has the Bioness technology." HealthSouth Lakeshore Rehabilitation Hospital will hold a free screening for patients on Tuesday, May 4<sup>th</sup> at their facility in Birmingham.

After receiving his NESS I300, Standifer walked into his neurologist's office on a cane, and his doctor was surprised. "I can't walk without my device, so it has been a true blessing for me. It has brought back quality of life," Standifer says. "I can't run any races, but now I can live my life."

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