

NESS H200®
Hand Rehabilitation System



NESS H200® Hand Rehabilitation System

*Reach for greater freedom**

Open your hand. Close it. Reach. Grasp. Flex. Release.

Live your life again.

You may be able to do all this – and more – thanks to the NESS H200 Hand Rehabilitation System.

The NESS H200 Hand Rehabilitation System is a state-of-the-art functional electrical stimulation (FES) system that sends low-level stimulation to the paralyzed muscles in your arm and hand, enabling your hand to open and close.

The result: The NESS H200 offers people with paralyzed hand and wrist muscles better function for greater independence. And better quality of life.

“This is the first device that’s really been able to provide us with that sort of custom-fitted, direct muscle stimulation ... to our target muscles that nothing else has enabled us to do.”

John R. McGuire, M.D.
Director of Spasticity Management, Medical College of Wisconsin

* Individual results vary. Consult with a qualified physician to determine if this product is right for you.





The right solution for a range of people

Hand and upper-extremity paralysis is not a disease. It results from an injury or illness that makes the arm and/or hand muscles weak or paralyzed.

The following diagnoses that affect the central nervous system may cause upper-extremity paralysis:

- Stroke
- Traumatic brain injury
- Spinal cord injury
- Certain neurological disorders

When a person has an upper-extremity impairment such as hand paralysis, common activities of daily living become difficult to perform. People often compensate by performing activities with one hand.

Utilizing functional electrical stimulation (FES), the NESS H200® Hand Rehabilitation System specifically targets the activation of your paralyzed muscles to restore function and reduce secondary complications.

A whole handful of benefits

Beyond helping movement in your hand and wrist, the NESS H200 may also:

- Improve active hand range of motion and function
- Reeducate muscles to function without the system (often called neuroplasticity)
- Reduce muscle spasms
- Increase local blood flow
- Prevent muscle loss (often called atrophy)

“There’s a lot of activities I’m beginning to use a hand in, ... I’m actually able to carry something with it.”

Frank A.
Stroke survivor

FES creates body movement

The brain sends electrical signals to your body through the nervous system. These signals tell your body how to move. When injury or disease interrupts normal communication between the brain and arm(s), muscle weakness or paralysis may result.

If a muscle and its nerve supply remain healthy, functional electrical stimulation (FES) may be used to replace the natural electrical signals from the brain, helping the weak or paralyzed limbs move again. With continued stimulation over time, the brain may even be able to recapture and relearn this movement without the stimulation.

Treatment usually begins immediately after an injury

A number of factors impact the overall benefit a person will receive from using FES, including the severity and nature of the paralysis, the length of time since the paralysis occurred, and how frequently the NESS H200® is used.

Clinical studies show that early use of FES may provide optimal benefits.^{1,2} Studies also suggest significant improvement among people whose injury occurred years ago. Before beginning any rehabilitation therapy, it is essential to speak with your physician.

“A year ago I didn’t have any feeling in my hand at all. I wasn’t able to use it much, but now since I’ve been using the H200, I’ve been getting more sensation back in my fingers, and now I’m using it more without even thinking about using it.”

Bridgitte R.
Traumatic brain injury survivor since 1997



NESS H200® Hand Rehabilitation System

One, two, easy for you

The system consists of two components: an Orthosis and a Control Unit. A Bioness®-trained clinician customizes the NESS H200 and adjusts the settings for the stimulation that's right for you. Then you can put on, remove, and operate the system with only one hand.



1. Lightweight Orthosis

The Orthosis fits snugly on your hand and forearm to assure a proper fit every time – and holds your wrist at an angle ideal for functional hand movements.

The Orthosis features five electrodes custom positioned to your forearm. This ensures you get the stimulation you need – right where you need it.

2. Handheld Control Unit

The Control Unit sends electrical pulses to the muscles that control hand and wrist function – just like the signals that would naturally come from the brain through the spinal cord to the muscles of the hand and wrist. Stimulation causes muscle activation, so you can grasp, pinch, release, extend and flex with your fingers and thumb.



Backed by research

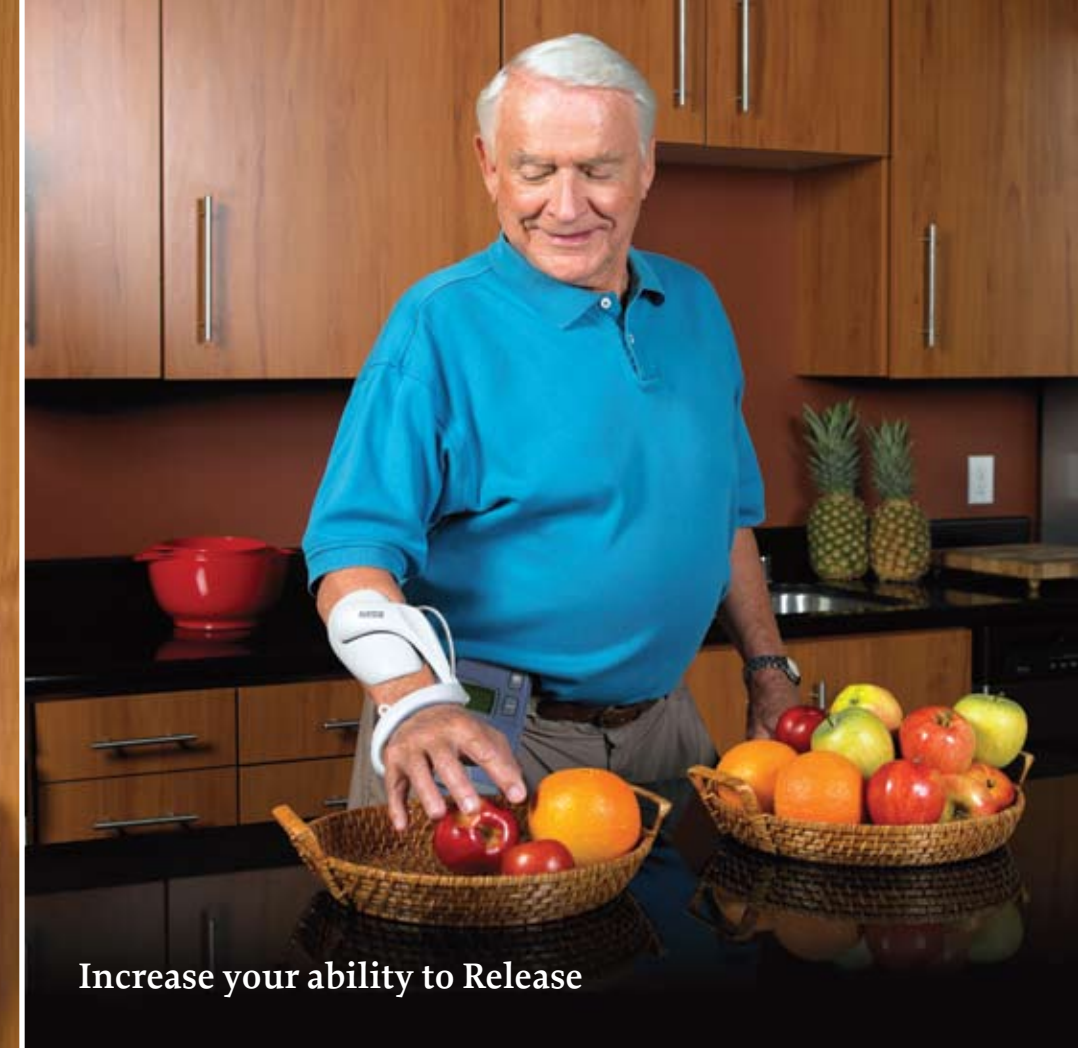
Clinical evidence suggests significant improvements in hand function and daily activities.

One study looked at the effect of the NESS H200® on stroke survivors. It demonstrated that those using the NESS H200 increased their ability to grasp, hold, and release objects as compared to those that did not use the device. The study also revealed reduction in muscle spasms and people's perception of the intensity of their pain.³

Another study suggested significant improvement in the ability to perform daily activities in addition to improved hand function.⁴



Improve your ability to perform Daily Activities



Increase your ability to Release



Increase your ability to Grasp



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 H200[®] Hand Rehabilitation System and the NESS L300[™] Foot Drop 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.

“Using the H200 is really easy.”

LaVerne G.
Stroke survivor since 2001



Reach for the phone

Call us at 800.211.9136. option 2.

We will help you find a healthcare professional who can determine if the NESS H200® can help you reach for greater function and freedom.

“I think the H200 gives the patient more freedom, responsibility and independence.”

Carol Transon, M.S., OT

