Parastep Clinical Programs at Rehabilitation Institutions

Sigmedics, Inc. currently provides Parastep Programs through collaboration with physicians and physical therapists at leading rehabilitation institutions and hospitals across the United States, Europe and Middle East.

The staff of Sigmedics serves as a support arm for the clinics' professional staff and Parastep users. Professional educational programs are provided by Sigmedics' clinicians to participating physicians and physical therapists.

In addition, ongoing technical and service support for healthcare professionals and users is provided.

The Parastep® I System enables appropriate spinal cord injured patients to stand and take steps. The Parastep I is not intended for all patients. Patients must generally be in good health and have the ability to demonstrate adequate trunk control and balance to maintain an upright posture. The Parastep I is contraindicated for individuals with severe scoliosis and osteoporosis as well as a variety of other conditions. A prescribed period of physical therapy training is necessary for the safe and effective use of the Parastep I. For complete information on the Parastep I, including indications, contraindications, warnings, precautions and adverse effects, contact Sigmedics, Inc.

CAUTION: Federal law restricts this device to sale by or on the order of a licensed physician.

Sigmedics, Inc.

Sigmedics, Inc. designs, manufactures and markets rehabilitation products which help improve the quality of life for those who are neurologically impaired. For further information, contact:

www.sigmedics.com

info@sigmedics.com

THE PARASTEP® I SYSTEM

A non-invasive system for standing and taking steps

The Parastep System has been shown to be a safe and effective means to enable standing and short distance walking by people who have sustained a spinal cord injury. As a functional neuromuscular stimulation (FNS) device, it comes from the medical engineering sciences known as neuroprosthetics.

The Parastep System is a FNS modality provided as an alternative to traditional bracing and other orthotic approaches to long term rehabilitation management of spinal cord injury. Candidates for The Parastep System are spinal cord injured individuals for whom standing and gait training is indicated following evaluation by medical professionals.

Control of paralyzed muscle for limited ambulation

It has long been accepted in rehabilitation medicine that prolonged inactivity has extensive deleterious physiological consequences. Few question the benefits of standing after spinal cord injury. The use of functional electrical stimulation by individuals with neurological impairments has been shown to be therapeutically effective for retarding and reversing muscular atrophy; increasing local blood flow in stimulated muscle; and increasing the range of motion at inactive joints.

The Parastep affords the user the ability to activate his/her own muscles and stand and bear weight on the long bones of the legs when and where the individual desires to do so, whether at home or in the workplace.

The Parastep System, when used in an approved program of long-term spinal cord injury management, will enable the individual to stand and walk short distances. Users of the system report that the Parastep improves emotional and psychological well-being by enhancing self-esteem and morale.

User Independence and Control

Available upon physician prescription, the Parastep, a compact and lightweight system, consists of the following components:

- A microcomputer-controlled functional neuromuscular stimulation unit
- A battery activated power pack with recharger
- The Paratester™, a unit for pretesting system operation and cable integrity
- Surface applied electrodes
- Power and electrode cables
- A control and stability walker with finger activated control switches
- Physical therapy training at an approved clinical site
- Full technical and service support

Reusable electrodes are easily applied and removed. Set-up is usually performed in less than 10 minutes.

The user controls the system by initiating commands to the microcomputer-controlled stimulator. The stimulator unit activates electrical impulses to the lower extremities to enable standing and walking.

The user initiates commands either through a user-friendly keypad on the stimulator unit or via control switches mounted on an electronically adapted walker. The walker provides balance and stability to the user while standing and walking.

The stimulator is powered by eight AA-NiCad batteries and is housed in a lightweight waistpack.