

'It's a great feeling. I'm 5' 9" again' — Kathy Riepenhoff of Mason

Paralyzed for 3 years, woman walks again

BY TIM BONFIELD

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Three years ago, a car crossed the center line on Butler-Warren Road and Kathy Riepenhoff of Mason swerved to avoid a head-on collision. She hit a tree instead.

Riepenhoff, a former aerobics instructor who loved to play soccer and volleyball, was paralyzed from the waist down. The other driver, who did not stop, was never found.

On Wednesday, the third anniversary of that fateful day, Kathy Riepenhoff walked again.

It was an awkward, strenuous few steps that left Riepenhoff winded. It was a great victory.

"It's a great feeling. I'm 5'9" again," Riepenhoff said. "I used to be a real jock. It's a good feeling to be back up and tall."

In all, Riepenhoff walked about 25 feet along a corridor in Good Samaritan Hospital's physical therapy department. She did it with the help of a walker and

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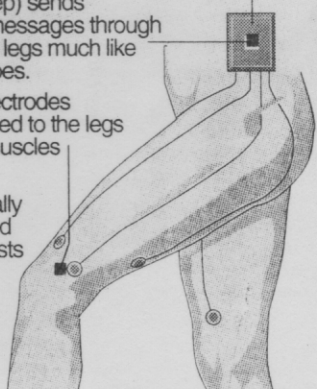
How it works

1 Battery-operated device (Parastep) sends electronic messages through wires to the legs much like the brain does.

2 Four electrodes connected to the legs stimulate muscles to move.

3 A specially designed walker assists in the process.

Parastep device



Source: GNS research

Frank Bames, GNS



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Kathy Riepenhoff walks Wednesday with Parastep, a device that stimulates leg muscles. She is assisted by therapists Julie Jordan, behind her, and Nancy Hake.

Walk: Device is first step

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neuromuscular stimulation by a device called a Parastep.

The Parastep system is made by Sigmedics Inc., a company based in a Chicago suburb. It has been introduced in Europe and Israel and won U.S. Food and Drug Administration approval in April 1994.

Good Samaritan is the only facility in Greater Cincinnati distributing the Parastep. Riepenhoff is the second local patient to complete the training. More than 75 U.S. residents at 25 medical centers have started using the device.

The Parastep consists of a computer-controlled stimulator unit and a battery stored in a pack strapped to the waist. Wires from the unit are connected to points on each leg. A walker equipped with fingertip controls comes with the system.

By pressing the command buttons on the walker or waist unit, a paraplegic patient can send electrical charges to leg muscles that can no longer be controlled by the brain. One button activates muscles to help the patient stand up. Other buttons work the legs and adjust the amount of electrical stimulation.

By stimulating one leg at a time, and using the walker for support, patients can stand and shuffle forward, typically about 20 to 40 feet. Longer distances come with hours and months of practice.

"We've had people walk up to a mile with it," said Sigmedics spokesman Alan Blitz. "It's very much up to the individual in terms of what they can accomplish."

The Parastep is not designed to replace a wheelchair. Paraplegics using wheelchairs can go faster and farther without getting as tired. And their hands are less occupied.

"I don't know how practical it will be," Riepenhoff said. "I'm going to play around with it at home and at work and see what I can do."

But the \$16,000 device offers other medical and psychological benefits, said Nancy Hake, a physical therapist at Good Samaritan who has been working with Riepenhoff.

The ability to activate leg muscles and stand on weight-bearing bones increases blood flow, slows muscle atrophy and helps keep leg bones strong, Hake said.

More important, getting out of the wheelchair — even for a few steps — helps build self-esteem and morale, Hake said.

Many private health plans cover the costs of the Parastep on a case-by-case basis; Medicaid and Medicare do not cover it, Blitz said.

Riepenhoff, now 32, lives in Mason and works as a human resources manager at the Miller Brewing Co. plant in Trenton.

Even before the Parastep, Riepenhoff stayed active since the accident. She swims and plays wheelchair racquetball. Last summer, she went waterskiing.

Studies involving fetal tissue and transplanted optic nerve tissue offer some hope that someday, somebody will find a way to repair spinal cord injuries.

When that day comes, Riepenhoff plans to be ready. "I want to make sure I'm doing everything I can do," she said.

But on Wednesday, after 32 sessions of training since August, it was time to celebrate. "Now, it's Miller time," Riepenhoff said.