

SOUTHWESTERN NEWS

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INNOVATIVE PHYSICAL THERAPY TECHNIQUE ALLOWS PATIENTS TO TRADE WHEELCHAIRS FOR WALKERS

DALLAS – February 28, 2000 – An innovative method of physical therapy in use at UT Southwestern Medical Center at Dallas is helping some disabled individuals trade in their wheelchairs for walkers.

For Sherrie Drakeford, the therapy, which uses a special treadmill and a harness that partially suspends body weight, is the answer to her children's prayers.

Drakeford's mobility was reduced by multiple sclerosis, and she was later further incapacitated by aggressive therapy for breast cancer.

But for the past three months, Drakeford has been undergoing rigorous training.

During a routine session, Drakeford is secured in a mountain-climbing harness that is suspended over a treadmill. As the treadmill starts turning at .4 mile per hour, her physical therapist grasps her weaker right foot and guides it during her first, faltering steps.

In essence, Drakeford is being retrained to walk.

"The weight-suspended ambulation system has been used for some time to rehabilitate stroke patients. But Dr. Anton Wernig, a German researcher, was the first person to use the treadmill training for patients with spinal-cord injuries. Previous studies had shown that paralyzed animals' function improved with treadmill therapy, and their condition deteriorated once they stopped.

Wernig trained Dr. Patricia Winchester, chairwoman of physical therapy at UT Southwestern Allied Health Sciences School, on the system. She said the locomotion of patients with neurological deficits, like spinal-cord injury or multiple sclerosis, is often impaired by poor muscle strength, decreased muscle tone and poor balance. Although conventional gait training usually focuses on retraining these components, gait deviations often persist.

"The basis for treadmill training is to facilitate the locomotive center in the spinal cord, which is thought to control the patterned reciprocal-stepping motion observed during walking,"

(MORE)

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said Winchester, who works with Drakeford. “Body-weight-supported ambulation is an interactive training program that consists of graded weight support, thus allowing the patient to bear only the amount of weight that he or she can cope with during treadmill walking.

“The No. 1 outcome is improving a person’s function. Once they start walking, they will maintain the level they have achieved through therapy. Our hope is that if they learn to walk over ground independently, they won’t have to rely on other people or wheelchairs for assistance.”

Drakeford, who can now walk with the assistance of a walker, said she is experiencing the benefits of the therapy.

“When you get up on the treadmill, it’s good for you emotionally and physically,” she said. “Now I am able to do things I wasn’t able to do before.

“When I got cancer, it wasn’t so important to walk at that point. It was more important that I receive treatment and be able to see my kids grow up. But my kids would pray that I would be able to walk again. To them, walking is synonymous with being healed. And when they see me up and walking, it means that I am getting well.”

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***SPECIAL NOTE: A black and white photo of this device is available on the World Wide Web at
<http://www.swmed.edu/news/web/AMB.tif>***

Cutline: Dr. Patricia Winchester helps Sherri Drakeford begin her first steps as Drakeford tries a weight-suspended ambulation system.

SPECIAL NOTE: A video news release related to this device will be available via satellite:

<u>Date</u>	<u>Time</u>	<u>Sat.</u>	<u>Trans.</u>	<u>Downlink</u>	<u>Audio</u>
2/29/00	8-8:15 a.m. EST	GE-2	11 C-Band	3920 V	6.2&6.8
2/29/00	3-3:15 p.m. EST	Telstar4	24 C-Band	4180 H	6.2&6.8