



NEURORECOVERY NETWORK



Shepherd Center is one of seven rehabilitation centers that have partnered with the Christopher and Dana Reeve Foundation and the Centers for Disease Control and Prevention (CDC) as part of the NeuroRecovery Network.

The NeuroRecovery Network (NRN) is designed to provide and develop therapies to promote functional recovery and improve the health and quality of life of people living with paralysis.

The NRN translates the latest scientific advances into effective, activity-based rehabilitation treatments.

The NRN program at Shepherd Center is staffed with a group of dedicated professionals who have received specialized training to deliver the NRN's therapies. The staff includes center directors, physicians, administrative and clinical supervisors, data managers, physical therapists, rehab technicians and case managers.

The NRN is an intense treatment program in which individuals participate in therapy five days per week for 1.5-hour sessions each day. The therapy consists of body weight supported treadmill training. The minimum number of sessions that NRN recommends is 60 sessions. However, Shepherd Center has found that many individuals benefit from participating in more than 60 sessions.

WHAT IS BODY WEIGHT SUPPORTED TRAINING?

In the body weight supported environment, the participant

is suspended in a harness over a treadmill, while specially trained therapists move their legs to simulate walking.

Body weight supported training on a treadmill derives from recent advances in scientific understanding about neural plasticity (the ability of the neurons in the nervous system to develop new connections and "learn" new functions) and the role the spinal cord plays in controlling stepping and standing. This intervention works to "awaken" dormant neural pathways by repetitively stimulating the muscles and nerves in the lower body.

WHAT RESULTS CAN I EXPECT?

A range of results and health improvements are reported in the scientific literature; others are beginning to emerge as we apply this therapy to humans. What we know is that results will vary from individual to individual. No two NRN participants will respond in exactly the same way, nor is each participant likely to experience the entire range of possible changes and improvements. This therapy may contribute to improved cardiovascular and pulmonary function and blood flow to the arms and legs. In some individuals, it may boost the healing potential of the skin, help increase bone density and improve bladder function. Functional results among NRN participants have ranged from improved trunk stability to recovery of standing and stepping ability.

CRITERIA FOR ADMISSION TO THE NRN PROGRAM

Data collected from evaluations and sessions with participants in the NRN will become part of a network-wide database that contains comprehensive medical and functional information about the progress of each individual. By collecting and analyzing this information, the NRN will be able to accurately measure program outcomes.

Individuals selected for the NRN must meet the following guidelines:

- Not actively participating in an inpatient rehabilitation program.
- Stable with no deteriorating medical condition. Patients with a pacemaker or ventilator cannot participate.
- Non-progressive spinal cord lesion at level T10 or above; T11 and T12 may be considered in the absence of lower motor neuron signs.
- Absence of anti-spasticity medication.

MORE INFORMATION:

To get additional information, contact Neile Manning at 404-350-3102 or email her at neile_manning@shepherd.org

NEURORECOVERY NETWORK CENTERS

- Shepherd Center, Atlanta, GA
- Frazier Rehab Institute, Louisville, KY (lead center)
- Magee Rehabilitation Hospital, Philadelphia, PA
- The Institute for Rehabilitation and Research, Houston, TX
- Boston Medical Center, Boston, MA
- Kessler Medical Rehabilitation Research and Education Center/Kessler Institute for Rehabilitation, West Orange, NJ
- Ohio State University Medical Center ³/₄ Dodd Hall, Columbus, OH