Shepherd Step

Shepherd Step is an intensive walking program to assist participants with motor-incomplete spinal cord injury in regaining the highest possible functional level of walking. Shepherd Step is staffed with a group of dedicated professionals who have received specialized training to deliver walking interventions. Based on the judgment of the participant’s physician and physical therapist, these interventions may include use of the following devices:

- Body-Weight-Supported Locomotor Training (BWST) with either manual or robotic assistance
- Neuroprostheses
- Parastep
- Orthotics or Braces
- Training in Over-ground Walking

What are Neuroprostheses?
Neuroprostheses are devices that deliver functional electrical stimulation (FES) to help move the legs, which would not be functional without such a device. Neuroprostheses use electrodes placed over the legs and consist of a control box and a cable connected to a walking device. The box houses the command switch(es) for step functionality. The most widely used FES devices also have been designed to address foot drop to improve over-ground walking. Research shows promising results in all outcome measures of walking, including functional mobility, speed, spatiotemporal parameters and the physiological cost of walking.

What is Training in Over-Ground Walking?
For individuals with strong leg movement who can support their body weight in an upright position, over-ground walking may be an option with or without specialized equipment and custom orthotics.

Potential outcomes include:

- Improved quality of walking
- Increased walking speed
- Increased walking endurance
- Decreased use of devices

Because of these well-documented results, over-ground walking has become a standard of practice at Shepherd Center to integrate locomotor training across the continuum of care for individuals with leg movement. The program serves inpatients and outpatients, including those in Shepherd Center’s Day Program and Beyond Therapy®.

Specialized Equipment

- Bioness/Walk Aide Neuroprosthesis - A device used to stimulate the lower leg during locomotor training
- Lokomat® - Robotics-assisted treadmill training with body-weight support
• **Orthotics or Braces** - Evaluation and training completed in conjunction with a consulting orthotist
• **Pacer and Arjo** - Professional equipment resembling a "super" walker used to provide over-ground training
• **Parastep** - A neuroprosthetic device used to stimulate the entire leg during locomotor training
• **TheraStride** - Manual treadmill with body-weight support
• **Zero G** - A static or dynamic system with body-weight support used with over-ground training

**CRITERIA FOR ADMISSION TO SHEPHERD STEP**

Individuals selected for Shepherd Step must meet the following guidelines:

- Must safely tolerate upright position and weight-bearing
- Have defined and realistic functional ambulation goals
- Must have prescription from physician

**MORE INFORMATION**

To get additional information, contact Velma Moore, Shepherd Center Post-Acute Case Manager, at 404-350-3102 or velma_moore@shepherd.org