Beyond Therapy® at Shepherd Center is a rigorous, activity-based therapy program designed to help people with a variety of neurological disorders, including spinal cord injury, improve their lifelong health, minimize secondary complications and get the most out of any new neural links to their muscles.

True to its name, Beyond Therapy® goes beyond the borders of traditional therapy programs, where the focus is on adapting to a new set of capabilities. Traditional therapy programs are designed to help patients become as independent as possible using compensatory strategies and training on how to care for themselves after discharge from the hospital.

In contrast, Beyond Therapy® focuses on promoting lifelong wellness and maximizing muscle and neural return through a program of intensive strengthening and motor-patterned activity concentrating on weaker muscles and nerve connections that may have been ignored in the initial phases of recovery. Optimizing recovery, toning seldom-used muscles and decreasing secondary complications that typically occur among people with neurological disorders are central objectives of the program.

Beyond Therapy® staff consists of therapists who specialize in exercise physiology, therapeutic recreation and physical therapy. Staff members integrate the neural development and strength goals of each client into an individualized program, incorporating the use of innovative treatments that may result in some level of recovery. Each client will be evaluated by a physical therapist and exercise physiologist to determine the plan of care and program design. The program is intense, at least nine hours per week, and requires a significant time and financial commitment on the part of the client. The program offers training and support for clients and caregivers in implementing a long-term, intense, activity-based program.

Beyond Therapy® incorporates the use of state-of-the-art rehabilitation equipment and may include the following interventions:

- Lokomat: Robotic-assisted treadmill training
- Body-weight-supported manual treadmill training
- Parastep: NMES-based synthesized gait restoration

GOALS OF BEYOND THERAPY®

- Explore the potential of facilitating neural tracts within the spinal cord that have been spared injury and promote neuromuscular recovery.
- Create an individualized, lifelong activity program and help individuals maintain physical readiness for neural recovery.
- Improve the quality of life by decreasing complications, improving sensory and motor function, and increasing self-efficacy.
- Enhance lifelong health and wellness.
• Giger Training: Active/passive coordinated movement of all four extremities and trunk
• FES Cycling: Lower-extremity and upper-extremity cycling using electrical stimulation
• Bioness H200: Neuroprosthetic training for the upper extremities and hands using electrical stimulation
• Bioness L300: Functional electrical stimulation applied to the common peroneal nerve through an external orthosis to assist in improving a stepping response and provide greater lower-extremity clearance during ambulation activities
• Neuromuscular electrical stimulation to key muscle groups demonstrating voluntary movement during activity
• Total body vibration plate
• Zero G
• Sensory-level stimulation to muscle groups not yet demonstrating voluntary movement
• Core and balance training
• Extremity strengthening
• Aquatic therapy
• Developmental sequencing activities
• Gait and pre-gait activities
• Functional training for higher-level mobility skills