

ATM Project

Sutton's History:

In November of 1999 a tragic accident occurred when Sutton Howell, a twenty-year-old junior at Auburn University, was heading home to Blakely, GA, for the Thanksgiving break. Sutton lost control of her car, a red convertible, and flipped over and over until the car's momentum was spent. It took the Jaws of Life to extract her from her vehicle, along with the kitten traveling with her. Over the next few following days in Southeast Alabama Medical Center in Dothan, Sutton's family and friends agonized over the uncertainty of each diagnostic report. Was there brain damage? Would she ever be capable of breathing without the aid of a respirator? Was her spinal cord severed?

Thankfully, there were positive answers to some of the questions. Sutton remains as mentally bright as before her wreck. However, doctors diagnosed Sutton with a complete C-6 spinal cord injury, which meant that she had lost all feeling and movement from her chest down. Since the diagnosis was a complete C-6 (low cervical) spinal cord injury, her family was told that she would not regain any movement back from the chest down. Doctors also told them that one lung was partially collapsed and predicted that she would not be able to breathe on her own again.

After Sutton was stabilized at the Medical Center in Dothan, her doctors transferred her to Shepherd Center in Atlanta, where she was placed in an intensive care unit for 3-4 weeks until she was weaned off the respirator and could breathe independently. She received rehabilitation therapy there for the next four months.

At home that summer, Sutton suffered from a low body temperature, a typical reaction of spinal cord injury patients, so her parents took her to the hot springs in Cottonwood, AL, where they met a couple, massage therapists from Tallahassee, FL. The couple told them about a relatively new type of therapy, Integrative Manual Therapy, and about a trained therapist in Tallahassee.

Following this lead, the Howells put Sutton under the care of the therapist in Tallahassee for several months. The therapist worked with Sutton as far as her level of training in Integrative Manual Therapy allowed, then suggested that the Howells go to an Integrative Manual Therapy Center in Albuquerque, NM, where she had received her training.

Sutton went to Albuquerque to the therapy center in March 2001, was evaluated and given her treatment plan. The treatment plan is ongoing at the Center for Integrative Manual Therapy in Fayetteville, GA where a specific Recovery Program utilizing the Integrative Manual Therapy (IMT) for Spinal Cord Injury (SCI) was gaining excellent functional gains with the spinal cord injury population.

Sutton Howell has been in the IMT SCI Recovery Program, named FIRST STEP, under the guidance of the program's Director, Sue Leger, D.Sc., PT, IMT, C, for two and a half years. She is now doing things she was told would never be possible. Sutton benches seventy pounds and transfers herself in and out of her wheelchair independently. In a gait trainer (a device similar to an infant walker, only adult sized) and with leg braces on, Sutton walks independently all directions; forwards, backwards and sideways. Sutton has begun locking and unlocking her knees and is now training with forearm crutches!

Sue Leger describes FIRST STEP as the first spinal cord injury program of its kind in the world. FIRST STEP has four phases that a person progresses through. Phase One, with its full structural hands-on focus, is where recovery begins. Phase One

emphasizes reversing spinal shock, spinal cord edema, spinal cord fibrosis and opening the flow within the cord. All added medical concerns are addressed during this phase. Phase Two begins when a person has spinal cord and muscle motility. This second phase expands the structural IMT with a functional component. The functional IMT is diagnostically driven to reveal structural integrity problem areas for correction. Phase Three begins once full spinal and muscle rhythm is established and the hard frame biomechanics are addressed. Sue Leger reports that clients in Phase Three are taking steps and progressing towards independence. Sutton Howell took six months in FIRST STEP to begin taking her first steps. Now Sutton has advanced through IMT SCI Recovery Program to Phase Four, which continues the IMT structural emphasis, with the addition of a strong exercise component. Sutton's recovery has been continual with her newest ability of independently locking and unlocking her knees when she is standing in the gait trainer.

Sutton goes to the Center for Integrative Manual Therapy in Fayetteville, Georgia every two or three weeks for 2-3 days of therapy. She is on a Six Weeks On/Six Weeks Off program. During the Six Weeks On period of therapy, Sutton is on a rigorous schedule of exercises. After three days of therapy at the Center in Fayetteville, Sutton comes home and works six hours a day for six days a week for six weeks to strengthen the muscles that are returning from the therapy she has received at the Center. She lifts weights, walks in a gait-trainer, and swims for hours in a pool in the warm weather. Her regimen includes exercises designed to strengthen muscles that have atrophied in her legs, torso, and hands. During the Six Weeks Off period of therapy, Sutton exercises 1-2 hours a day for maintenance of muscle strength, but she essentially lets her body rest.

After her accident in 1999 she could not move, nor feel from the chest down and now through her dedicated work under the direction of the Integrative Manual Therapy program, Sutton Howell now practices walking with the help of forearm crutches and knee braces.¹

History of Progress:

Sutton: During my week of using the ATM I feel a lot of progress was made. Now, when standing my core and pelvis are no longer as wobbly as they were previously and I have more stability in my stance. Also, there is a noticeable difference in my breathing, I am able to take in deeper breaths than I was prior to using the ATM.”

Laurie: Sutton’s pelvic stability improved significantly following work on the ATM. After the first day, she was able to stand with improved posture, improved pelvic midline orientation, and increased balance. Following the fifth day of ATM use, Sutton’s gait showed a remarkable improvement. There was improved stability on the stance leg and increased efficiency in advancing the swing leg, using her hip flexors verses hip hikers as she had been doing previously.

Suttons Car

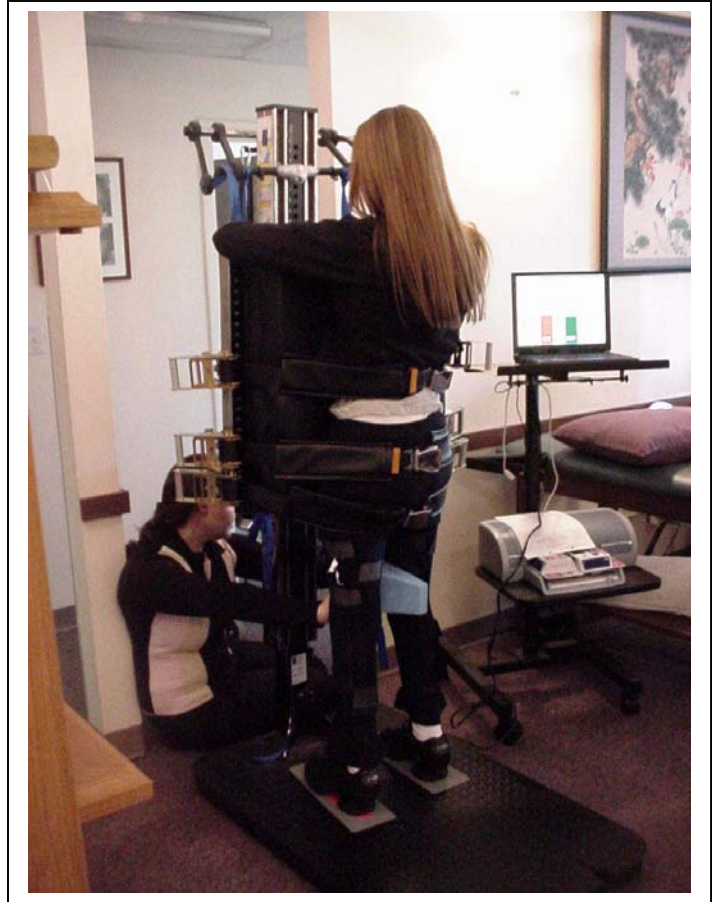


Sutton on the ATM





Sutton,
on the ATM and also using
the Unicam force plates:



Sutton,
Walking in the gait trainer.

