

In the Swing Again



Physical therapy grad regained her father as a golf partner after making him the subject of her research project.

For her master's-level physical therapy research project, Beth Balusik '07 decided to use an unusual study subject – her father.

In October 2004, a 50-pound bag of fertilizer fell 20 feet onto Gary Balusik's head while he was at work, causing an incomplete spinal cord injury, which means that Gary maintained some sensation and motor control. The accident put Gary in a rehabilitation hospital for more than two months, and he worked with physical therapists for the next year while his daughter was studying to be a physical therapist at UF.

"The first set of physical therapists did a great job of getting me to where I was," Gary said. But even after he was released, he still had difficulty with his balance, agility and endurance, which prohibited him from enjoying activities such as walking and golfing.

According to Mark Carroll, faculty adviser and assistant professor of physical therapy, there is generally a six-month period during which a patient can expect to gain most of his or her improvement. Beth, however, wanted to help her dad improve his quality of life – two years after the injury.

Many physical therapy programs focus on building the patient's strength, but Beth wasn't convinced that was the problem. With assistance from faculty adviser Sharon Fleming Walsh, assistant program director for physical therapy, Beth conducted many tests to measure strength and balance: Berg Balance Scale, Dynamic Gait Index, rate of perceived exertion, bilateral lower extremity range of motion, bilateral lower extremity manual muscle testing and others.



Gary's strength tested well, and both Beth and Walsh concluded that the source of the problem was likely his balance. Using techniques that had been discussed in Walsh's class, Beth developed a six-week treatment plan, which consisted of 60-minute sessions twice a week. Treatment included intense static and dynamic sitting and standing balance activities.

Beth led her dad through exercises such as blindfolded walking, foot-over-foot walking and grapevine walking. "He was very dependent on his vision when we started, so we practiced walking on a variety of surfaces," she explained. "We focused on strengthening the vestibular system and proprioception, which is the feeling you have in your lower legs in relation to where your body is in space."

Gary explained that it felt like he was walking on three-foot tall wooden stilts. He was unable to feel his feet on the ground, was unstable, couldn't bend down without falling, lost his balance easily and relied on a cane. Videos of Gary taken before he began Beth's program show him walking with a flexed right knee and his head down while he made sure one foot moved in front of the other.

Now, after just six weeks of treatment with his daughter, Gary walks up and down stairs with the aid of only a handrail. He walks with his head up and without a cane. "His physical therapists couldn't believe it when they saw him walking into a patient reunion," said Beth with a smile.

Gary still gets tired easily, and he still has difficulties walking on some surfaces and up and down steep staircases. "But it's the little stuff that improves the quality of life. It sure made a difference in how I went about my daily work."

"This type of work is such an important capstone to the education. This is one of the best examples we have ever had. It's so incredibly rewarding to see the ideas students come forward with," said Carroll.

Walsh agreed. "It was two years post. Singling out balance is different, and to make such improvement with just 12 treatments over six weeks is remarkable. That will make a significant impact clinically both in the amount of improvement and the potential low cost of treatment."

Although Gary can't walk an 18-hole golf course, he is now able to bend down to put the ball on the tee and swing a club, using a cart to move around the course. Just two weeks after their final treatment session, the father and daughter pair entered an annual tournament that they had missed the previous year. "I hit the ball, and it went right down the middle. I turned around and gave her a big ol' hug. The ball didn't go near as far as it used to, but it was still a good hit," said Gary, who, because of his daughter, enjoys a better quality of life.

"His physical therapists couldn't believe it when they saw him walking into a patient reunion." – Beth Balusik'07