

# Muilenburg Prosthetics and Orthotics REVIEW

## This Amputee Exemplifies That Attitude Is Everything

As a recreational athlete, John LeBlanc, 26, of Houston, enjoyed the challenge of completing a marathon, hiking the backcountry, and biking on rough terrain. But following a 2004 Labor Day weekend outing, John's life took a sudden turn, and challenges took on an entirely new meaning.

John and his girlfriend, Wendy Panzarella, were in Austin for a reunion with college friends from his alma mater, the University of Notre Dame. On their way home to Houston, John's Toyota pickup hydroplaned during a severe rainstorm. The Toyota flipped, but John and Wendy, aided by other drivers who stopped to help, were able to crawl out of the truck with no apparent injuries. While waiting for emergency help, another driver offered them refuge in his pickup, which was parked nearby on the shoulder of the road. As they were about to enter the parked vehicle, they heard a loud crash, and John saw an SUV hurtling towards them at a high rate of speed. Wendy and the others nearby were able to run out of the way. But John attempted to escape by jumping up on the tailgate of the parked truck, just as it was impacted by the SUV. "The truck spun around like a merry-go-round, and I hung on with my legs flying off the back," he said. When the vehicles finally



John LeBlanc & Wendy Panzarella

came to a stop, John's left foot was hanging by a sliver of bone and tissue, and his right leg was severely injured. Fortunately, one of the passersby who stopped to help was in the U.S. Army, whose medical training enabled him to stop the bleeding and keep John stable until Life Flight arrived and could transport him to Brackenridge Hospital in Austin. There, doctors immediately told him they would not be able to save the foot. When John woke up some time later, he was a left leg below-the-knee amputee, with his right leg held together by an external fixtator. Because of the nature of the accident, a lot of road debris and mud had become embedded in his wound, and John ended up having three surgeries on his residual limb to keep it clear of infection.

### PLANNING FOR COMPETITION

It was during that time in the hospital and recovery, that John set a new challenge for himself. He was going to run in a competition that he had considered signing up for before the accident - the Hood to Coast relay race, spanning 197 miles from the top of Oregon's Mt. Hood to the Pacific Ocean in Seaside, Ore. "My goal for getting better was to form a 12-member team of close friends and complete the run," he said.

Jon Holmes, his prosthetist from Muilenburg Prosthetics and Orthotics (MPO), heard of the plans early on, and he wasn't sure it was possible to rehab and train for the race in such a short period of time, especially given John's injuries to his right leg. "He is a get-it-done kind of guy and because he was in such top shape before the accident, he was able to get right into a training program," Jon said. "He was determined to continue the lifestyle he had before the accident."

After being released from the



John and his team after the San Diego Triathlon Challenge.

## John LeBlanc, from page 1

hospital, John ended up spending two weeks at TIRR in Houston, where he was introduced to Jon Holmes. “Jon visited me on a weekly basis and we talked a lot about the fittings and logistics of prostheses,” said John, who as a mechanical engineer was naturally interested in how the design and fitting would help him walk again. “I was satisfied with all of his recommendations, but I wanted to do due diligence and visit other prosthetists to make sure I made the right decision. I decided my best course of action was with Jon and MPO.”

Fitted with a prosthesis on a slower schedule following an amputation than most patients and due to his right leg being injured, John was forced to spend over three months in a wheelchair. When he got his prosthetic leg in December, it was going to have to function as his “good leg,” while his right leg continued to heal.

“Even though he was still very swollen and weak, we had to fit him to get him out of the wheelchair and acclimated to a new way of walking,” Jon said. “We had to change out sockets several times, due to the natural progress of the residual limb shrinking.”

### GETTING BACK UP TO SPEED

Following his initial fitting, John underwent several more weeks of outpatient physical therapy. He used crutches for five weeks while waiting for his right leg to become full weight bearing. But to keep his upper body in shape while in the wheelchair, he would push his wheelchair up and down the ramps of his apartment building’s four level parking garage.

Five months after the accident, in early 2005, John’s injured right leg had healed enough that he could stop walking with crutches, and concentrate on training for the run with his prosthesis. He also returned to his position as a project controls engineer in the project management group at Exxon Mobil in Houston. After work hours, he worked out a training schedule for himself beginning with weight training to strengthen his upper



John and Wendy running in San Diego.

body and core. Then, he hit the treadmill.

He knew his “walking leg” wouldn’t stand up to the rigors of a cross-country race, so he wrote to the Challenged Athletes Foundation (CAF), San Diego, to request help in obtaining a prosthesis. CAF provides grants for adaptive sports equipment for physically challenged athletes and sponsors athletes in training and competition. Through CAF and Ossur, a Flex-Run™ was donated, and MPO handled the fabrication.

“They provided me with a foot, but it had to be modified to fit my leg and socket. The MPO staff was able to put

**“I’m not limited,” John says. “I feel really blessed.”**

it all together for me,” John said. “The balance on the running leg felt different at first, so I worked on the treadmill to get comfortable. After about two weeks, I was comfortable with the treadmill and moved on to the track at a local high school. From there I began working out at Houston Memorial Park, which has a three-mile running loop. I ran a mile, walked a mile, and ran a mile until I could run three miles straight. I continued to do this until I could run 13 miles at a time.”

### MISSION ACCOMPLISHED

Less than a year after the accident, and less than nine months after getting his prosthesis, John’s team finished the Hood to Coast race, with the team averaging an 8:05-minute mile, of which John had run 16. “It was a big goal for me to accomplish, and it symbolized my

recovery,” he said. “I wanted my friends to participate with me too because they played such a vital role in my getting better.”

Two months later, John participated with a six-member team in the annual San Diego Triathlon Challenge 2005, which encompasses a 1.2-mile ocean swim, a 56-mile bike ride, and a 13.1-mile hilly run. John was able to complete the run in a respectable 2 hours, 21 minutes.

John also wanted to give back to CAF for the help they gave him, so as part of the Triathlon Challenge the team raised more than \$7,000 for CAF.

### MORE TO COME

John also plans to acquire a biking leg, a water leg, and a ski leg, all of which will be customized by MPO.

“It’s gratifying to see someone so successful, and I’m happy to help him realize his dream,” Jon said. “He approaches his life with the right attitude. He’s never felt sorry for himself, or asked, ‘why me?’”

John’s success is credited to his willingness to learn and to adapt. “I like

to say that I can make someone a tool, but it’s the patients’ responsibility to understand the tool, so they know how to use it,” Jon said. “He takes all the steps to do everything the right way. He’s done everything asked of him, and then some, and that’s the secret to his success.”

John’s tenacity and attitude helped him overcome adversity, but he also credits the support from his family, friends, and Wendy.

“Everyone was very supportive from family and friends to coworkers, and they all helped me in my recovery,” John said. “Wendy and I are still together. I was told that relationships sometimes can’t handle this type of accident, but instead, this whole experience has made our relationship stronger.

“I’m not limited,” he adds. “I feel really blessed.”

# Endolite Offers Patients Products For Varying Lifestyles

Muilenburg Prosthetics and Orthotics has built its reputation on offering products for patients at all levels and varying lifestyles. For its patients looking for versatility in their knee control system and dynamic feet, Endolite offers a variety of options. Two of those options are the Endolite Dynamic Response Foot 2 and Endolite Shin Module Uniaxial Lightweight Knee.

The Endolite Dynamic Response Foot 2 is a second-generation foot that has enhanced properties from the previous model. The carbon fiber keel has been extended into the toe on this model, which helps the foot provide greater energy return from heel strike through toe-off. On average, the Dynamic Response Foot 2 returns 90



percent of stored energy to the user.

Other features of the foot include its increased heel volume for superior shock absorption and enhanced comfort, as well as the improved spring assist at toe-off to ensure no loss of performance regardless of terrain. Plus, the integral stiffness mechanism allows rapid and easy adjustment of keel resistance to suit a variety of activity levels.

The Endolite Uniaxial Knee is lightweight and designed for active walkers. It provides cadence control and stance stability, and can be manually locked.

“We initially started using the European carbon fiber knee because it was the lightest one available that utilized our preferred U.S. hydraulic control unit,” said Ted Muilenburg, CP, FAAOP.



Ted Muilenburg, CP, FAAOP, (right) at the recent Academy Meeting in Chicago visits Jon Bork and the Endolite display to learn about new innovations.

“Over the years, Endolite has continued to develop additional knee and feet systems. They have very lightweight hydraulic systems that are sized perfectly for the one-piece cosmetic endo-skeletal cover. It is an excellent choice for those who do not need to get on their knees.”

Endolite makes knees and feet geared to a variety of activity levels. Be sure to discuss your lower limb options with your Muilenburg prosthetist, who can help you make the patient-specific choice.

## Muilenburg Practitioners Attend Scientific Symposium

Ted Muilenburg, CP, FAAOP, and Andre Martinez, CP, attended the 32<sup>nd</sup> Annual Academy Meeting and Scientific Symposium held in Chicago in early March. Ted and Andre had the opportunity to participate in seminars and workshops, as well as visit exhibitors showcasing the latest technology for the prosthetics and orthotics profession.

Ted was able to observe how a state-of-the-art prosthetic system allows upper-limb amputees enhanced functionality. The arm is controlled via a nerve transfer technique developed by Todd Kuiken, M.D., Ph.D., and his team at the Neural Engineering Center for Artificial Limbs at the Rehabilitation Institute of Chicago. “This advanced procedure for targeted sensory reinnervation provides a prom-

ising outlook for upper limb amputees,” Ted said.

Among the seminars attended by Andre included “Promoting Amputee Life Skills (PALS),” presented by Paddy Rossbach, RN, president and CEO of the Amputee Coalition of America. PALS is



Andre Martinez, CP, (right) learns about a computerized foot that is being developed.

a research study sponsored by the Centers of Disease Control and Prevention, and is conducted by the Johns Hopkins Bloomberg School of Public Health, the University of Washington, and the Amputee Coalition of America. “The study indicates that peer support is extremely beneficial to amputees in terms of self-empowerment and skill acquisition,” Andre said.

Other events at the Meeting were the Government Relations Forum, which brought attendees up-to-date on recent regulatory activities affecting the industry, and a Gala Trilogy Fundraising Dinner for the Northwestern University Prosthetics-Orthotics Center (NUPOC).

Ted and Andre will share more of what they learned at the Meeting in future newsletters.



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Office hours: 7:30 am to 5:30 pm, Monday through Thursday • 8 am to Noon, Friday

## *Ann Sanders, PT, Returns to MPO Enhanced Care for our Patients*

Welcome back to Ann (Machinski) Sanders, a physical therapist, specializing in amputee rehabilitation and manual spinal therapy. She recently moved back to Houston, her hometown, and rejoined the company after a six-and-a-half year hiatus. "I'm thrilled to be back at Muilenburg Prosthetics and Orthotics," she says. "I love working with patients—enhancing the rehabilitation process for them. Muilenburg is one of a handful of prosthetic/orthotic facilities in the country to have an in-house physical therapist.

It is such a benefit to the patient to work hand-in-hand with our prosthetists through the gait training and prosthetic adjustment process." She will also work with other members of the rehab team to further improve outcomes for our patients.

She received her Bachelor of Science Degree and Certificate in Physical Therapy from Texas Woman's University. She



trained and practiced at Houston's Memorial Southwest Hospital, Oklahoma City's O'Donoghue Rehabilitation Hospital, Memorial Hermann City Hospital, and TIRR (The Institute of Rehabilitation and Research). She resides in Bellaire and enjoys spending time with her husband, Mitch, daughter, Alyssa, and stepson, Rhett.

## *ACA Peer Training Seminar Scheduled*

The Amputee Coalition of America (ACA) is offering a Peer Visitor Training Seminar in Houston, Saturday, May 13, from 8:30 a.m. to 5:30 p.m. at TIRR Kirby Glen, 2455 S. Braeswood. The cost of the program is \$30, and registration, which is due by May 5, can be made by calling ACA at 888-267-5669, ext 8132. Scholarships are available, contact Kristin Reeve at [ReeveK@tirr.tmc.edu](mailto:ReeveK@tirr.tmc.edu) for information.

Presentations, discussions, and role-playing sessions include presenting an appropriate demeanor, understanding the stages of grief and loss, communication techniques, promoting emotional recovery, listening skills, and dealing with difficult issues.

After completing your training, ACA will enter your name in a database and will match you with a patient who recently suffered limb loss. Amputees are matched as closely as possible to those with similar limb loss and comparable age. While personal visits to a new amputee are desired, communication can be done by phone, fax, email, and regular mail.