Patient Case Story: Bryan LaPooh

When Bryan LaPooh tells people he has an incomplete spinal cord injury and is paralyzed on the right side of his body, people don’t believe him. “They don’t believe it’s the brace that allows me to walk like this,” he says. “That’s a testament to how great C-Brace is.”

C-Brace® helps individual with spinal cord injury break free of locked leg braces

The accident
Bryan doesn’t remember the accident in December 2008 that left him with broken C4 and C5 vertebrae and ended his 20-year career as a police officer. What the father of four from New Jersey does remember is being dispatched to help a vehicle that had become disabled on a steep incline during a snowstorm. Bryan helped the motorist and proceeded to shut down the roadway when another car got stuck. He got out of his police car and walked around it so he could help turn the other vehicle around. The next thing he remembers is waking up in a hospital and being intubated.

According to witnesses at the scene, Bryan had stepped on a patch of ice that was so slippery, his feet went out from under him. He fell and landed on his head. He was unconscious for almost an hour. “I was paralyzed on the right side of my body from midway down my neck all the way to my toes,” he says. “If I had broken one more vertebrae up, I would have been in a wheelchair for the rest of my life.”

The severity of his injuries didn’t sink in for Bryan until about a week and half after the accident when he was transferred from the hospital to a rehabilitation facility. “They wheeled me into a cafeteria with people who had similar injuries to mine,” he recalls. “I looked around and saw a whole bunch of people being spoon fed. That’s the first time I realized how bad I was.”

Anticipating technology
Bryan’s journey to the Ottobock C-Brace involved hope and forethought — hope that orthotic technology would advance to a point that would address his mobility needs and forethought on the part of Bryan’s orthotist, Geoff Hill, to document the type of technology that would benefit Bryan, even though nothing like it was available at the time.

The most advanced leg braces at the time were stance control orthoses (SCOs), which, instead of being completely locked during walking, are able to lock and unlock at just the right time during walking to help the user achieve a more natural stride.

Although Bryan displayed nearly all of the factors that would have qualified him for an SCO, “it would not have been safe for him,” Geoff says. “Getting him from sit to stand was too precarious. There was nothing available that allowed for an automatically controlled lock going
from sit to stand, so we fit him in a locked KAFO [knee ankle foot orthosis] but included in the notation that when a microprocessor controlled SCO became available, he would benefit from it.”

About a year later, just such a device became available. After undergoing a laminectomy and spinal fusion of the C3 through C6 vertebrae to relieve tightness that had begun to impact his ability to move his left side, Bryan was fit with the Ottobock SensorWalk*, a stance control KAFO. The SensorWalk improved Bryan’s safety from sit to stand and allowed him to walk greater distances, but it didn’t have the ability to change walking speed. “Bryan has such a strong gait that the device was fighting his momentum,” Geoff explains. An avid hunter and fisherman before his accident, Bryan pushed the orthosis beyond its capabilities on many occasions. A device that “would respond to ground reaction forces and allow for changes in walking speed along with stability and control through all phases of gait” would be even more beneficial, Geoff explains.

Again, Geoff documented Bryan’s success in the SensorWalk as well as the type of device that would benefit Bryan should it become available in the future.

**Then along came C-Brace.**

C-Brace is an entirely new class of orthotic device — an Orthotronic Mobility System. C-Brace measures a person’s walking in real-time and makes adjustments that allow for more controlled, more natural movement. This new device fit Bryan’s requirements nearly to a t.

**Overcoming insurance obstacles**

There was just one problem. Bryan does not meet the criteria for C-Brace. Candidates for C-Brace must have hip flexor strength of at least grade 3. “Bryan is trace at best,” Geoff says. But because he had demonstrated so much success with initiating momentum from the hip using the previous stance control support, Geoff and the Ottobock Professional Clinical Services team decided to evaluate Bryan in a pair of trial orthoses. The benefits were immediately apparent.

“He walked beautifully,” Geoff says. “Bryan demonstrated that he could take advantage of all the wonderful things the brace has to offer. We took video of him walking on ramps and through grassy knolls — we put it through the paces. We had taken video of him in the locked KAFO and the SensorWalk, and now we had video documentation of him walking in the test C-Brace.”

Unfortunately, the insurance company would not authorize C-Brace for someone who did not meet the criteria for the device. Instead, they offered to authorize another SensorWalk. Geoff refused, stating that he wasn’t interested in fitting his patient in a device that restrained his activity demands and, as a result, was broken more often than not.

This back and forth went on for nearly eight months. Bolstered by the support of his wife, Bryan contacted his lawyer and filed a motion with the court to compel the insurance company to cover the device. Geoff agreed to provide a written deposition. On the day they were due to appear in court, the insurance company called Bryan and approved the C-Brace.

Geoff’s detailed documentation played a big part in getting insurance to pay for Bryan’s C-Brace.

**From zero to 14 in 3 braces**

Bryan wears his C-Brace from morning to night — sometimes for nearly 18 hours straight. On a scale of good to better to best, Bryan ranks the locked KAFO as good, the SensorWalk as better, and the C-Brace as “most definitely” the best. With the locked KAFO, Bryan walked less than a mile a day “mainly to get from point A to point B.” To propel himself forward in the brace, he had to throw his body forward with every step. This compensation was taking a huge toll on his back — he was in near-constant pain.

*SensorWalk is no longer available.*
With C-Brace, Bryan still throws his body forward, “but only once,” he says. “The brace takes over after that. I can speed up, slow down, and turn left and right. The only thing I can’t do is stop short.” Other benefits: no more back pain and no more falls.

On his “best-ever” day with C-Brace, Bryan walked a total of 14 miles. He averages between five and six miles of walking a day — twice the distance he was able to achieve with SensorWalk — and has gotten back to hunting and fishing and helping out around the house. “I do everything I did before, it just takes me a little longer,” he says. “It’s hard to explain because I can’t feel my leg, but with C-Brace, it doesn’t feel like I have a mechanical implement strapped to my leg; it feels more like I have a leg. When I want to sit down, I sit down. If I want to stand up, I stand up. If I want to walk, I walk. I don’t think of my brace; I don’t think of anything other than just walking.

“I’m disabled, but I’m not disabled,” Bryan says. “C-Brace gives me the ability to be free.”

To learn more about C-Brace and how it can help your patients achieve a successful outcome, call 800 328 4058 (800 665 3327 in Canada) and ask to talk to a Sales Representative.