

Real Life:

Case Study of a Catastrophic Knee Injury

By Lynda Huey, MS

*Note from the author:
Please look up any words you don't fully understand.*

The woman in the grassy field didn't see the large black German Shepherd before he crashed into her and knocked her to the ground. Over ten minutes passed before she could roll over, slowly sit, and painfully stand with the help of the man who owned the shepherd.

The results of the MRI the next day showed six major structures had been damaged. They were the anterior cruciate ligament (ACL), the medial collateral ligament (MCL), torn medial meniscus, torn lateral meniscus, compression fracture of the tibia and a torn popliteofibular ligament. Not only did the results of the MRI scare her, but also forced her to look up that last ligament.

Thankfully, her friend and orthopedic surgeon downplayed the injuries to reassure her. The hospitals were closed to elective surgeries due to COVID, so it was going to be a non-surgical recovery.

It was going to be *my* non-surgical recovery. For the first time in my life, I was totally disabled, unable to walk except with a walker, no weight on my right leg. I found it embarrassing. I was the one who helped injured people recover. *I wasn't supposed to be this injured!* And yet I was, and it damaged my self-respect. So, pride sealed my lips. First, I had to turn this catastrophic injury into something decent and respectable. I had to gain new understanding of both my spiritual

world and my physical body before I could talk about it.

After three days packed in ice on the couch, I decided to make a 100% come back. I would take the work ethic from my fitness lifestyle and apply it to my new rehab life with the same vigor, commitment, and consistency. After all, this was my road to fitness; I would just have to go a lot slower. I had made many come backs from sprained ankles, a broken foot, strained Achilles, and multiple hamstring strains. This was much bigger, but it was the same experience – one that would require infinite patience.

First, I saw my integrative manual therapist for help with the swelling, lymph drainage, and pain. On Tuesdays and Thursdays, my assistant Gigi drove me to Julie Shishino, a highly skilled PT near the Los Angeles airport. Every tiny movement hurt my knee, so I had to sit sideways on the back seat, a pillow beneath my knee, lifting my leg as we crossed any bumps. Jostling on bumpy roads had me hollering in pain. Once at Julie's, she used her hands-on Shock Treatment to get my adrenals working again, and she applied Kinesiotape to pull the swelling out of my ballooned-up knee. Then she used Compression Syndromes to make sure those fluids could get past a blockage she found at my hip and up into the lymphatic duct.



Next, I went to the most experienced sports PT in Santa Monica, Robert Forster, my co-author on *The Complete Waterpower Workout Book*. He kept his shock at the severity of the injury to himself until months later and started me on the daily discipline of a home exercise program (HEP). There were only three exercises as I began. I had 74° of flexion in my knee. My calf and ankle were a traumatized purple, turning to green, turning to yellow. Every week new exercises were added or repetitions or sets increased. Without an ACL, my hamstrings were going to have to help stabilize my knee, so we added more work. Soon it was a 2-hour program doing more than a dozen exercises. The program took me so long because I had to move so slowly and cautiously from one position to the next. Any quick or wrong movement caused sharp pain.

Nothing came between me and my daily HEP from Bob. *Every single morning*, it was the first thing I did. I couldn't take my dogs hiking or go boogie boarding, but I could do my exercises on a mat on the floor. For many weeks, I listened to jazz at Lincoln Center's full-length "Concerts from the Vault," for company and

good cheer. Eventually I would screen mirror the webcams from my Surline app onto my Apple TV, watching my favorite surf breaks in real time and playing wave sounds to make it real.

My routine was set: Bob on Monday, Wednesday, Friday mornings and Julie on Tuesday and Thursday afternoons. I was grateful to have two incredible geniuses helping me through this. Soon I was able to push my right heel to the ground as Julie freed up the Achilles and calf muscles and repaired fascia, bone bruises, and blood vessels damaged in the trauma. Bob did the manual work over the MCL and the capsule. He explained to me that when there were multi-ligament injuries and tears, we had to rely on the whole joint capsule.

“Don’t let an injury take you down a notch and keep you there. Fight your way back to full function every time!”

“The MCL and LCL aren’t free-standing,” Bob said. “There’s the fibrous capsule around the knee and the MCL and LCL are huge reinforcements on the medial and lateral sides. With the ACL fully torn, we are going to rely on the capsule to keep the joint together. I have to make sure I don’t mobilize your knee too fast into flexion and extension. I’m trying to get the capsule to develop capsular adhesions, become kind of ‘shrink wrapped’ around the knee joint. Once that happens, then we can push for range of motion.”

In the third month while I was still on the walker, I was doing a quad set, seeing the right quad begin to develop definition. It dawned on me that every single repetition of each exercise had value. I had to give each one the same respect that I would have given to running a 200M interval. *This is my program to regain my abilities,* I convinced myself. I was exercising and going to PT two to five hours every day even though I couldn’t drive for 12 weeks. Gigi drove, got my walker out of the back, and picked me up.

Where was my pool therapy? It occurred to me that I have always said, “you can always do something in the water” to countless students, patients, and reporters. I found out that wasn’t true. When you’ve lost the stabilizing ligaments of the knee, it hurts too much to move in the water. I tried the pool at weeks 3 and 5 and both times I felt my knee wobble. I had to wait until the capsule “set” and I had some stability. My bathtub became my daily “body of water” that soothed me.

I felt a deep anguish knowing I was missing a whole summer of waves. How easy it would have been to go down a rabbit hole of despair, misery, and hopelessness, but I couldn’t stand that. I reached out to brilliant friends with upbeat mind sets. I listened to motivational, insightful tapes every day. *Heck, yeah, I’m coming all the way back!* I taught myself to maneuver on the walker around the house and down the back stairs to the back yard.

I learned that I create my own emotions. When bleakness tried to descend on me, I decided it was much more fun to be happy, so I switched my thoughts to how well my business was doing during the pandemic. As an essential physical therapy practice, we were the only pool open. We re-invented the practice for COVID, which made it more efficient and prosperous.

Just before the 4th of July in 2020, I visited my long-time collaborator and orthopedic surgeon Dr. Robert Klapper. My knee ROM was up to 110°. He tested the MCL and said, *“I feel the end range.”* A solid stop. Next, he tested the ACL, saying, *“You’re not unstable.”* He told me, *“We were worried about your knee being stable, but now we don’t have to worry about that. It’s a tribute to your strength of spirit and your discipline to do the exercises every day. Now get a spinning bike and bike every morning to regain the full range of motion and function in your knee.”*

Now I could also start my pool program. Three days a week in the pool meant three to four more hours of exercise each week. I put on a flotation belt and stayed non weightbear-

ing in deep water. My knee felt awkward while running. Pain behind my knee stopped me from doing powerwalk with any force. That one tender spot told me when I could push a little and when to back off. After deep-water intervals, I did deep-water exercises and my kicking series that athletes love so much. It was slow at first but gathered speed gradually over the months. I finished with standing leg-strengthening exercises, progressing by adding more sets and reps. My flexion was at 120° and improving.

Julie continued to use her Bone Bruise and Disruption of Membranes techniques to encourage my own tissues to rebound quickly. Where there was muscle, tendon, blood vessel, ligament, and bone all mangled together from the impact, she helped each structure regain its integrity, thereby reducing my pain and improving my function. If my knee turned hot and red while Julie did Compression Syndromes, she would say the tissues are releasing whatever they had been holding onto. Bob would say that the tissue is still remodeling. Both made sense to me.

I learned many of Bob’s favorite sayings, such as *“Live to train another day,”* his way of saying it was okay if I didn’t do an exercise because it hurt. Or another one, *“You’re only one day away from feeling good again.”* If I did too much one day and the knee was sore, I would take a day off from walking, biking, or pool to recover and he was right – it felt good again.

Inching forward, months went by. By November, it was time for another MRI. Five of the six damaged structures had healed. My ACL had healed! Dr. Klapper had a theory for this rare occurrence, *“This is the worst knee injury I’ve seen, and I think because you had so much damage, the body sent all of its healing cells there to do the job.”* I told that to a friend and he said, *“That, and your 2-5 hours of physical therapy every day for the past seven months!”*

My walking was getting better, but with an awkward gait. My former confident athletic stride was nowhere in sight.





Once every week or two, I tried to increase my longest walk by 0.1 miles. It took weeks and months, but a year after the injury I finally arrived at 2 miles. I walked in Palisades Park overlooking the Pacific Ocean for inspiration and a lovely flat walk. The next week, I used my late mother's walking sticks for hiking that same distance. I would turn around halfway to my goal, and my dog hiker would take the dogs another few miles. I was still a long way from my normal fitness lifestyle.

The ups and downs didn't seem to want to level off into steady upward progress. This injury was going to test me and make me modify many of the theories I had developed from my 40 years of working with injured athletes and patients. I was learning a lot about the knee from the inside out and would put that new knowledge to good use.

I learned to celebrate small victories. At nearly 14 months post-injury, my right hamstring still felt vulnerable when I did one-legged bridges. Then one morning, it felt stronger, didn't feel like the hamstring might spasm or tear. My spirits were always lifted from the little things that were healing.

Any of you who have taken my classes have heard me say, *"Don't let an injury take you down a notch and keep you there. Fight your way back to full function every time!"* I'm charging ahead on a long road to reach the physical capabilities of my former self. I'm visualizing taking my dogs for a hike every morning again instead of paying others to have fun with my two pointers. And with some hot months ahead, I'm picturing the day when I put on my wetsuit and paddle out into the waves with my friends. ■

Author



Lynda Huey, MS pioneered the use of water rehab with Olympic and professional athletes in the 1980s and 1990s. She owns CompletePT Pool & Land Physical Therapy in Los Angeles.

Lynda has taught conferences on six continents. She has authored six books on aquatic fitness and rehab, one of them a textbook that is part of her Aquatic Rehab Online Course. LyndaHuey.com

Finding Relief In The Water

By Monique Acton

The human body is wonderful when it's in optimal working condition. It can jump, bend, twist and move with ease. Over the years though, the body eventually begins to break down causing aches and pains. Getting into the water can be a great option for individuals to experience some relief, especially if the pain is muscle or joint related.

Meet Robert, age 77, who had his spine fused and rods placed in his spine about 20 years ago due to degenerative disc disease. Over the years the rods began to bend, which caused pain in his spine once more. When the pain became unbearable, to the point that it interfered with his abilities to perform his daily activities, and along with his doctor's recommendation, he had the old rods removed and new ones put in its place. This was eighteen months ago. With a successful surgery, along with the completion of physical therapy, Robert was given exercises to help gradually return back to his regular activities.

I met Robert through one of my existing clients. His doctor and physical therapist felt aquatic exercise would be a great way to improve his overall physical health and along with his balance when walking and standing. They recommended that he also continue with his home exercises.

With Robert's permission, I reached out to the physical therapist to talk about how I could help create Robert an aquatic home exercise program. The therapist stressed working on overall muscular strength, core strength, improving balance and walking. The contraindications for exercise, due to the rods in lumbar area of the spine, include no exercises involving forward flexion of the spine as well as limiting trunk rotation since this can place a lot of stress on the spine where the rods were located.