



Ferguson molds a prosthetic in his shop June 17, 2013, at the CFI. (Photo by Meghan Portillo)

Center for the Intrepid Helps Amputees Reach Their Full Potential

By Meghan Portillo

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Waking up to the sound of an explosion was not something out of the ordinary for Sgt. Edwin Gonzalez during his tour in Afghanistan. But the blast he heard before the break of dawn July 28, 2012, began a day he would like to forget.

Gonzalez's unit was on a mission to create a decoy to assess the reaction of individuals in the area suspected of making improvised explosive devices. When he heard the blast, he thought it was someone clearing an IED out of the way, someone just doing their job.

But the Soldiers realized one of their own had been hit in the explosion, and the operation was immediately abandoned. Their new mission was to get their

wounded comrade to safety. Yet before Gonzalez knew it, another explosion had gone off, hitting another friend.

Gonzalez and the other Soldiers made their way to the wounded, avoiding the roads where they could.

"I woke up in a ditch," Gonzalez recalled. "It felt like it happened instantly — at one moment, I was on my feet and the next, I was on my back."

He had stepped on an IED made of the carbon rods found in batteries.

Gonzalez looked down and immediately realized he was in trouble. He could see a black foot through his shredded boot, his leg dangling below the knee by strands.



Sgt. Edwin Gonzalez uses his running prosthetic to lift weights June 18, 2013, at the Center for the Intrepid at Fort Sam Houston, Texas. "Before, I wanted to do FBI SWAT, but this experience has changed me," he said. "I love working out. I love training; I love training others. It's awesome. It's great seeing someone come in not being able to walk, all scrawny and whatnot, and seeing them walk out healthy and strong." (Photo by Meghan Portillo)

A buddy close behind Gonzalez called out to him, "Can you put a tourniquet on?"

After he applied the tourniquet, Gonzalez was carried to a recovery vehicle. He waited several hours for the two other wounded Soldiers before being evacuated to the nearest forward operating base.

"Thanks be to God, we are all doing well now," he said.

From Afghanistan he was transferred to Germany, then to Fort Sam Houston, Texas. He spent about a month at the Brooke Army Medical Center before heading across the street to the Center for the Intrepid, where he continues his rehabilitation.

An outpatient facility under BAMC's Department of Orthopaedics and Rehabilitation, the CFI provides a full spectrum of services to amputees, as well as to burn victims and limb salvage patients with residual function loss. Rehab includes physical and behavioral medicine, case management, occupational and physical therapy, wound care and prosthetic fabrication and fitting. The center uses some of the most advanced technology in the world to assist wounded Soldiers as they return to the highest possible levels of physical,

psychological and emotional function. Even after suffering injuries that not too long ago would have ended their lives, many Soldiers are able to continue to serve on active duty. They may even deploy several times, proving they are as strong as ever.

A center full of hope

The state-of-the-art care Gonzalez has received at the CFI has changed his life, he said. He has been inspired by other amputees and his therapists, and now wants to help others. When he has finished his rehabilitation, he hopes to go back to school to become a physical therapist or a personal trainer.

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Gonzalez said that even if he had known he would lose his leg, he still would have joined the Army.

"I'd do it all over again," he said. "I have no regrets."

The best technology and care at their fingertips

Though Gonzalez still has a lot of nerve pain, the prosthetics created for him at the CFI allow him to pursue almost any physical activity.

“They work with you for everything,” Gonzalez said. “If you want to rock climb, they have legs for that. Swimming, biking — they have legs for everything.”

“I have a boxing leg. It’s pretty much a running leg with a heel in the back — like a foot with no toes. I have that bounce, but I still have leverage if I need to lean back quickly or come in for a strike. It’s pretty cool.”

In addition to in-house prosthetic fitting and fabrication, Soldiers at the CFI have access to a wide range of the best technologies to help them reach their full athletic potential.

A motion analysis lab assists specialists in detecting the slightest irregularity in a Soldier’s gait on different types of terrain. They use infrared cameras, force plates in the floor and electromyography to measure motion, ground reaction forces and electrical activity during muscle contraction. Therapists and doctors use the data to assess a patient’s progress and tailor his or her treatment.

Occupational therapists utilize the center’s fully functional model apartment to help Soldiers practice the skills needed for independent living. Soldiers can also immerse themselves in a 3-D, computer-assisted rehabilitation environment that uses sensors placed on the body to simulate interactive, lifelike situations on a 300-degree screen.

Physical therapists use cutting-edge sports equipment to help Soldiers regain strength and range of motion. In addition to an indoor track, rock-climbing walls and several weight rooms, they can use an anti-gravity treadmill to gradually increase the amount of weight they bear while walking. In the natatorium, Soldiers body surf on the FlowRider, a wave simulator that helps them increase their balance and core strength.

They are not alone

Master Sgt. Dan Hendrix was first treated at a civilian hospital in Illinois after bones shot through the bottom of his foot during a parachuting accident. He went through treatments for a year to save his leg, but two staph infections eventually made amputation his only option.

“That’s when I was sent here, and thank God,” Hendrix said. “The prosthetics care I got out there compared to the prosthetics care I receive here at the CFI, it’s like night and day. At the civilian hospitals, they are not used to treating someone who wants to be so active.”

He recalled the “pirate leg” he had received from a civilian company — nothing more than a metal pole with a wooden foot at the end.

“No flexibility. No bending. No moving. Nothing. Now, with this new leg, I can move, pivot. I’m part of the kayaking program, and I’m even starting to run a little bit. I just want to get back to doing everything I was doing before.”

Staff Sgt. Lennis Gray, an Active Guard Reservist, was also treated at a civilian hospital after a car accident led to the amputation of his left arm. He received



Staff Sgt. Lennis Gray practices using his prosthetic June 17, 2013, by picking up clothespins and attaching them to a plastic board. Gray has been a patient at the CFI since February 2013. (Photo by Meghan Portillo)

a prosthetic from a hospital in Nashville, Tenn., but became discouraged by his lack of progress.

“They only gave me a four-hour block of instruction,” Gray recalled. “It was very frustrating; I could close it, but I couldn’t open it. Frankly, I didn’t even wear it much at all.”

Gray was sent to the CFI and instantly regained his motivation. He described his progress as he practiced picking up brightly colored clothespins with his training prosthetic and clipping them to a circular board hung above the table.

“I want to be able to use my prosthetic on a day-to-day basis — really use it, not just put it on for show-and-tell. I thought I would never get to that point. But now, coming here and seeing the progress of all the others, I realize it can be done.”

Gray flexed his triceps to rotate the prosthetic in the other direction.

“There were probably amputees at the hospital where I was, but I never saw one,” he said. “Then I got here, and there are so many others like me. They really encourage me because, even though they have had this misfortune, they just drive on. They are just being themselves — proud to be alive, just like I am.”

The sky is the limit

John Fergason, chief prosthetist at the CFI, watched Hendrix walk back and forth. With each step, Hendrix put his weight on the prosthetic carefully, compensating for discomfort.

“Every time you take a step, just tell me when you feel pain,” Fergason told Hendrix.

Hendrix walked back across the room. “Now... now... now...” he said.

From the timing of the pain, Fergason knew exactly where to adjust the prosthetic. He took the leg to his shop in the next room to reshape a small section.

When Hendrix put his prosthetic back on, he was surprised the pain was completely gone. He stood with his head high and walked with a spring in his step.

“What I just did probably couldn’t be done in the field,” Fergason said, “but I train these guys how to make adjustments on their own prosthetics. If someone is deployed or is declared deployable, we set them up with extras and backups and some tools to service them.

“It’s not a career-ending situation for a lot of the guys. Some choose it to be because they can’t go back to doing exactly what they were before. Boots-on-the-ground infantry might be difficult for someone



Gray uses his training socket to pick up clothespins. He controls the prosthetic’s elbow by moving his shoulder, and turns the wrist right or left by contracting his triceps or biceps. To open and close the hand, he flexes both his triceps and biceps at the same time. (Photo by Meghan Portillo)

with an above-knee amputation and an injury on their other side. But many, like Hendrix, have no problem. NCOs should never limit them.”

Ferguson said he hopes NCOs will acknowledge the capability that someone has with limb loss. He spoke of a former patient who is now leading a Ranger unit. While other Soldiers are changing socks, he changes legs or liners. But he is absolutely capable of performing all that is required of him and more, Ferguson said.

“NCOs shouldn’t have a preconceived notion of what someone can or can’t do. Let them show you,” Ferguson said. “They wouldn’t be back to you if they hadn’t already demonstrated that they could do it. Now that they are back, you have to trust that their rehab has been appropriate and has prepared them — otherwise, they wouldn’t be there.”

Hendrix, now on active duty and stationed at Fort Sam Houston, recently celebrated 20 years in the Army. He said that once his leg was amputated, he was astonished at his progress and at what he was capable of. It was a blessing in disguise, he said, and he is not going to let anything hold him back.

“I was in a wheelchair and on crutches for over a year,” he said. “I was in a state of limbo — one step forward, two steps back. Now, I’m taking leaps, jumps, runs forward. I’m doing it all.” ■

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Master Sgt. Dan Hendrix explains to Chief Prosthetist John Ferguson where he is experiencing pain. Within minutes, Ferguson had reshaped the inside of the prosthetic, allowing Hendrix to walk out of the CFI pain-free. (Photo by Meghan Portillo)

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