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Enemy Unseen

Veterans living with post-traumatic stress disorder find comfort through CrossFit.

By Chris Cooper

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Tai Randall/CrossFit Journal

The American Veterans Disabled for Life Memorial in Washington, D.C., honors those armed-forces veterans who have been permanently disabled during their service.

Twenty-two veterans will kill themselves today, according to the nonprofit group Iraq and Afghanistan Veterans of America (IAVA).

Officially added to the third edition of the "Diagnostic and Statistical Manual of Mental Disorders" in 1980, post-traumatic stress disorder (PTSD) is a relatively new name for a condition that's been around as long as war. Unfortunately, its popular

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image is one of weakness—picture a crazy old shell-shocked uncle in wartime comedies—and few seek help.

Left untreated, PTSD is devastating. A 2012 [report](#) by the Department of Veterans Affairs (VA) shows almost 25 percent of all suicides in the United States are committed by veterans. Female veterans are more likely to attempt suicide; male veterans are more likely to succeed.

After battling a visible enemy, many veterans return home to find they've brought an unseen foe with them. Can coached fitness supply an ally in the fight on the home front?

Home, With Scars

David Lochelt, a paratrooper, was trained as a forward observer and served in Vietnam with E Company Recon, 4th Battalion, 503rd Infantry, 173rd Airborne Brigade. He spent two years sweating and fighting before he was honorably discharged from the army at 22 in 1970. He holds specific details of his service in Vietnam close to his chest.

"The term 'PTSD' hadn't been invented yet," Lochelt said. "They called it 'shell shock' or 'battle fatigue.' But I didn't think I had it."

Lochelt, now 67, began his post-service life with heavy drinking and drug use.

"For about six years I was rolling around the country," he said. "I was a musician, and I rolled around, played music and did drugs and alcohol."

At the time, Lochelt thought it was just part of the culture but now recognizes the pattern of PTSD.

After an alcohol-induced seizure in 1976, he found help in a 12-step program. He included exercise as a distraction.

"I became a runner," he said. "I ran marathons, did triathlons. I had two knee surgeries. I ran through my 30s, 40s and into my 50s. But I could still only sleep if I really put in a lot of miles."

He added: "When you're running, you can still think—know what I mean? I can have flashbacks while riding my bike."

Lochelt found CrossFit through another veteran's PTSD story online. After starting at CrossFit Portland in Oregon in June 2014, he started sleeping at night.



Courtesy of David and Lori Lochelt

Before leaving to fight in the Vietnam War, David Lochelt had to pose for this so-called "death picture." The U.S. Army kept it on file in case they needed it to identify his body.

PTSD and the Brain

The brain can rewire itself to meet the needs of its environment. This adaptability is necessary for survival but can also be a detriment.

When placed in a prolonged state of stress, the amygdala (responsible for fight-or-flight responses) enlarges by commandeering free neurons around its borders. The result is a state of heightened readiness—called "alarm" by neuroscientists—that keeps the body at full alert. When stress is removed, the amygdala should downsize to its normal state.

But when the stress isn't removed, the hippocampus—responsible for memory retrieval and distinguishing between new information and memory—shrinks. The brain loses its ability to provide context for new information; memories can appear to be happening in the present. To make matters worse, the ventromedial prefrontal cortex—which regulates response to fear—also

shrinks with prolonged stress, and the brain loses its ability to determine appropriate levels of response.

It's a downward spiral: The brain is primed to perceive threats, memories are confused with the present, and the response to stress is exaggerated. The amygdala keeps growing while the hippocampus shrinks, and even mild stressors are amplified.

While the brain is very plastic, it isn't made of rubber, and it doesn't bounce. Even mild jarring over time can cause long-term damage. Football players who have suffered a concussion show **reduced hippocampal volume** decades after their last game, which can trigger a descent into depression, memory loss and other conditions similar to the long-term effects of PTSD.

PTSD and traumatic brain injury (TBI) can go hand in hand. One might cause the other in some cases, or both can be sustained at the same time but carry different symptoms.



Courtesy of David and Lori Lochelt

Today David Lochelt finds CrossFit occupies his mind, helping to make his PTSD manageable.

Lochelt thinks the PTSD suffered by Vietnam veterans is primarily psychological, while that suffered by Iraq and Afghanistan vets might be more physical. In other words, he thinks the nature of warfare is changing the nature of brain injury.

It's a downward spiral: The brain is primed to perceive threats, memories are confused with the present, and the response to stress is exaggerated.

"These IEDs are bigger and stronger now. In Vietnam, we had smaller booby traps, like hand-grenade size. We mostly had loss of limbs," he said. "And we were walking on trails. Soldiers now are in a carrier."

The concussive force inside a carrier hit with an IED can have a reverberating effect on the brain. When a blast occurs outside, its shock is dissipated. Inside a carrier, the blast is absorbed by the bodies of the carrier's occupants.

Whether the nature of PTSD is different now is debatable, but what's clear is blast-induced neurotrauma and "mild TBIs" can create just as many problems as shrapnel. In fact, the National Geographic article "**Blast Force**" referred to brain trauma as the "signature injury of the Iraq and Afghanistan campaigns."

A Constant Battle

Brett Casavant knows the interplay between TBI and PTSD all too well.

A machine gunner with the 1st Battalion, 8th Marines, 2nd Marine Division in Iraq, Casavant suffered a series of head injuries in his 20s while deployed between 2002 and 2008.

"Once, my truck was hit with an IED. I was never fully unconscious but don't remember the rest of the day at all," he said, evidencing a classic concussion symptom.

He also had a “lot of rockets land inside the area where we were sleeping.”

Though these incidents occurred several times, no documentation of injury exists because Casavant’s records were blown up in attacks.

Casavant, now 32, began suffering headaches while still in Iraq and noticed a loss of balance and coordination. He started writing things down on paper and said other soldiers would occasionally have to cover up his forgetfulness. He was medically retired in 2008 with a very general diagnosis:

“Due to injuries sustained in Iraq.”

In other words, he was retired without a diagnosed brain injury, though he almost certainly had one. Casavant said the diagnostic technology simply wasn’t available then.

“Now, they have triage set up for head injuries. They’re looking for it,” he said.

Casavant’s vague injury diagnosis qualified him for a pension that was “ridiculously low but included health-care coverage.” After six years as a soldier, Casavant had to try and create a new life with a broken back and damaged brain.

When Casavant’s squad lost a man, he—as team leader—was forced to carry over twice his body weight in ammunition and gear for the unit’s machine gun. When he jumped over a wall into a stairwell with the load, he ruptured several discs in his lower back. He returned home with a TBI, PTSD, degenerative disc disease with annular tears, spinal stenosis, lumbar radiculopathy and lumbar neuropathy. He needed help just to walk, couldn’t think straight and still replayed battle scenes in his mind on an endless loop.

“That’s when depression set in,” he said.

Casavant knew his recovery would involve exercise.



Chris Cooper/CrossFit Journal

Brett Casavant works out at an adaptive-athlete seminar at Reebok CrossFit Bare Cove in Massachusetts.

He credits his wife—his high-school sweetheart—with pushing him to seek help. At her urging, Casavant sought both mental help and physical therapy.

“Seeking help early on helped me stay sane,” he said. “One guy I was with in the Marine Corps for four years came back and locked himself in the basement. But I had a purpose.”

Casavant knew his recovery would involve exercise but wasn’t sure he could handle CrossFit workouts.

“I learned about CrossFit while at Quantico (in 2007). It was always in my mind, but I didn’t think I could do it, so I started at Planet Fitness,” he said.

“But it wasn’t making me happy. I was by myself doing everything, and I just kept thinking about it. So when I found out about what Chef (David Wallach) was doing at (CrossFit) Rubicon, it opened my eyes to the community within the community.”



Chris Cooper/CrossFit Journal

Brett Casavant learned of CrossFit while in the Marine Corps. Today he shares his story as part of the Crossroads Adaptive Athletic Alliance seminar team.

Headquartered in Vienna, Virginia, Wallach's Crossroads program for adaptive athletes has introduced many amputees and PTSD victims to CrossFit. Casavant now travels with the Crossroads Adaptive Athletic Alliance (CAAA) seminar team, sharing his story with affiliate owners and coaches several times each year. CAAA's mission is to "facilitate the reintegration of permanently-injured athletes back into both the sporting community and community at large through sport," according to its site.

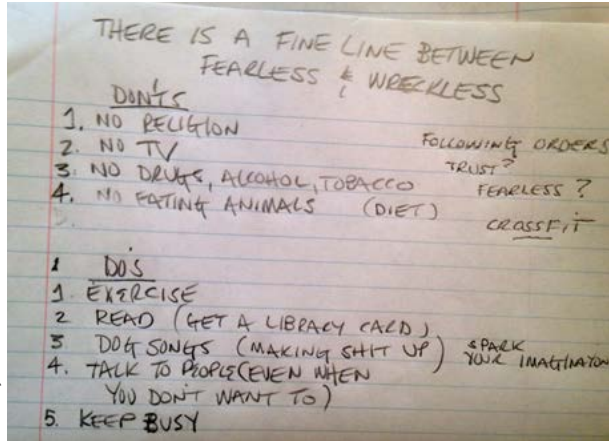
Unfortunately, Casavant's story is atypical. As a [2014 member survey](#) conducted by the IAVA revealed, many veterans are still hesitant to get help: 27 percent of survey respondents believed they had a "mental health injury" but were not seeking care. Their reasons: 46 percent didn't want to be perceived differently by friends, family or peers, and 33 percent were concerned it might affect their careers.

The IAVA is taking steps to increase awareness and access to care. President Barack Obama signed the [Clay Hunt Suicide Prevention for American Veterans Act](#) into law Feb. 12, 2015. Among other things, it will help the Department of Veterans Affairs recruit psychiatry students to ease the PTSD caseload. The act facilitates networks not unlike the 12-step peer-support group through which Lochelt finally sought help.

Each aspect can be part of a survivor's strategy, but none will break the cycle completely. Lochelt struggles daily, but he believes he's on the right track. When asked if he has daily thoughts of suicide, his answer was simple:

"Yes."

He continued: "There have been literally thousands of times when I didn't want to survive. But I usually had a reason: my kids or my wonderful wife and grandchildren."



Courtesy of David and Lori Lochelt

David Lochelt created a list of do's and don'ts on which to focus. The blueprint reminds him of what's important as he tries to keep his PTSD in check.

If PTSD is a battle, his family members are allies.

"I think they're depending on me not to do it. To not commit suicide," he said.

Over the years, Lochelt has put together a list of do's and don'ts that help keep him grounded. He wrote down his "plan" before his phone interview with the CrossFit Journal.

Lochelt lists familiar reasons for enjoying CrossFit—novelty, challenge and community—but especially enjoys the regular break from thinking.

"The moment I walk through the door, all I think about is CrossFit because I'm getting instructions about the workout of the day. I never look to see what it is before I go. I just show up and do whatever I can with that workout. And in that hour or even a little more sometimes, my mind is, like, flushed. It's absolutely amazing. I think I'm getting endorphins in a different way. I think, scientifically, that's what is happening to me."

In other words, Lochelt feels a full hour of engaged coaching helps him break the stress-response cycle of PTSD. Casavant agreed.

"It gives me something positive to focus on and gives me a break from all the things bouncing around in my head," he said.

Though it's not always easy to make the 5-a.m. class, Casavant relies on his military training to get his boots on the floor in the morning.

"I know if I don't go, I'm not going to be a better person or a better father," he said. "I'm not a Marine if I don't follow through when I'm tired. I've done more stuff when I'm in pain, more stuff when I'm tired—I know I can do it, but it's a battle."

The mental break is helpful, and the 2006 article "[The Protective Role of Exercise on Stress System Dysregulation and Comorbidities](#)" underscored "the beneficial effects of regular exercise in preventing or ameliorating the metabolic and psychological comorbidities induced by chronic stress." The study presented in the more recent article "[Exercise Augmentation of Exposure Therapy for PTSD: Rationale and Pilot Efficacy Data](#)" showed increased levels of brain-derived neurotrophic factor (BDNF) in PTSD victims post-exercise. BDNF helps with the production of new neurons and synapses, a critical process for replacing cyclical responses to fear.

And other athletes suffering from PTSD have recounted the benefits of group exercise in such CrossFit Journal articles as "[Post-Traumatic Stress Disorder: Finding Purpose Through CrossFit](#)" and "[Virtuosity 5: Therapy](#)." Whether the evidence is scientific or anecdotal, Lochelt doesn't need to be convinced.

"I'm not going to mess with it. I just know it works. It's not a cure, but it's amazing what it does for me," Lochelt said.

"They (the VA) put lots of people on antidepressants, but I'm going to CrossFit. That's what I say. Don't try to do this alone. You won't."



About the Author

Chris Cooper is a CrossFit Journal contributor. He owns [CrossFit Catalyst](#) in Sault Ste. Marie, Ontario, and is a founder of [CrossFit Brain](#).