

RUNNER'S WORLD

Running Back From Hell

PTSD is shattering the lives of thousands of American soldiers. But some experts believe running can counter the disorder's debilitating symptoms—and help restore the joy that war erased.

By
Christine Fennessy;
Published
February 24, 2014

Normally, James Buzzell avoids crowds. Being surrounded by strangers makes the former turret gunner anxious: *Where did they come from? What are they up to? How the hell do I get out of here?* He does not like being in situations where he can't control the variables, because he knows if you don't pay attention to 100 percent of the variables 100 percent of the time, people die. But there he was, at the starting line of the Rock 'n' Roll Mardi Gras Half-Marathon in New Orleans with more than 5,000 other people, not worried about something awful happening. In fact, he was laughing. Joking around with the guys he was going to run with, guys on his team. If you'd asked him then, he would've been hard-pressed to find words for the sense of peace he felt. During most of his eight years in the Army's Airborne Infantry, Buzzell, now 36, had plenty of stiffness and pain thanks to blunt-force trauma from a couple IED blasts in Iraq. But he ran 10-plus miles and did PT with guys in his squad at Fort Polk, Louisiana, every day, and when his shoulder or his ankle or his knee or his neck started really hurting, he took it easy, took some aspirin, and soaked in some Epsom salts. No big deal. Until his 1st sergeant saw his right hand involuntarily ball up into a claw, which it did sometimes because of nerve damage in his shoulder. The Army restricted his exercise, and he started to gain weight. As he lost muscle, stuff started hurting more, and doctors prescribed meds for the pain. Inactivity combined with a 35-pound weight gain left him

depressed and anxious, and they gave him meds for that, too. Ask his wife—that's when the irritation and the impatience and the distrust and the anger snowballed and cost him nearly every friend he'd ever had. Doctors tried to reconstruct an ankle they could hardly believe he could walk on, let alone run on. In May 2012, he was diagnosed with PTSD, and two months later, he was medically discharged from the Army, from his career, from his life. He slipped down a hole. Unable to work or tolerate restaurants or movie theaters, Buzzell rarely left his house in Columbia, South Carolina. His brain coursing with survivor's guilt and memories of things he did and friends he lost, he drank a pint of vodka almost every day before bed. Doctors kept telling him to relax and prescribed him more meds, but drugs weren't what he wanted. He just needed a better way to deal. So when a physical therapist suggested he regain fitness after his surgery, he bought a pair of running shoes. And he couldn't believe what he felt in those first runs in the woods. Peace. It just shoved all the anger and despair to the side and took him over. In time, he noticed that within the first mile, his anxiety fades. His rage evaporates. And he knows it sounds crazy, but the chronic pain in his shoulder and his ankle and his knee and his neck goes away, too. The sense of calm can linger for days, if things with his wife and baby are okay, and while the pain often comes roaring back the minute he stops, sometimes it takes a couple hours. He told his doctor that if he could run 16 hours a day and sleep for eight, he would.



Finding a team to train and connect with helped save Buzzell (with flag). Photo by Daniel Seung Lee.

But it was connecting with other runners that finally pulled him out of that hole. Don't take it the wrong way, he says, but there's an intimacy he has with his buddies from Iraq, a camaraderie that makes a lot of his PTSD symptoms go away. He found a similar reprieve when he joined Team Red, White & Blue, an organization that helps soldiers transition into civilian life, in part by connecting them to their communities through athletic groups and races. Now he's part of a team again, and the soldiers and civilians he runs with don't judge him. But they don't let him wallow, either. They'll tell him to shut up, stop feeling sorry for himself. And he listens, because he trusts them. And because he trusts them, he can stand at the starting line of a big race in a major city and instead of feeling like someone might die, he feels happy.

Since 2001, nearly 2.5 million U.S. military personnel have deployed to Iraq and Afghanistan. One in six of these men and women return home with post-traumatic stress disorder, which denies them peace, erodes their relationships, and erases joy from their lives. Countless more come back with post-traumatic stress, a term that applies to those who test below a diagnostic threshold but who have enough symptoms of PTSD that their lives are degraded or impaired. Yet, while PTSD is the most common mental-health diagnosis among veterans of the wars in Iraq and Afghanistan, fewer than half of those affected seek help—many are halted by the stigma of being "broken." Those who do get help can find relief: Several cognitive behavioral therapy treatments can essentially "cure" PTSD. But of those vets who seek treatment, 20 to 40 percent drop out. They do so for lots of reasons: difficulty accessing care, discomfort with mental-health professionals who don't understand a soldier's job, disillusionment. Our veterans need an alternative. And one is starting to emerge. For years, studies have found that exercise improves mood and is beneficial to those with depression, anxiety, and chronic pain. Now, based on this body of evidence, a few experts are researching how exercise might help those with PTSD. At the same time, soldiers are discovering on their own that physical activity eases their symptoms. And groups like Team Red, White & Blue are increasingly bringing those veterans together to instill a vital sense of mission to their recovery. There's long been a gap in exercise research as it relates to PTSD, but at two research facilities in Texas, an effort is under way to tap all the supporting evidence, to measure

what guys like James Buzzell feel, and to answer a potent, provocative question: Can running help soldiers heal?

Mark Powers, Ph.D., believes the answer may well be yes. He's a research associate professor at the Institute for Mental Health Research at the University of Texas at Austin, but up until July, he was codirector of the Anxiety Research and Treatment Program at Southern Methodist University in Dallas. There, he led a 12-week pilot study. Powers, 42, with spiked black hair and the thick arms and stocky frame of a bodybuilder, wanted to examine the effect of exercise on PTSD symptoms. Specifically, he wanted to know if patients who ran moderately hard on a treadmill for 30 minutes prior to therapy reported a greater reduction in symptoms compared with those who underwent therapy alone. The therapy employed in Powers's study was prolonged exposure therapy, or PE. In it, a person repeatedly recalls his memory of a traumatic event for about 45 minutes, while he's being recorded. The therapist then asks questions that help him process the memory—to fill in gaps and provide context around the images in his head. So, for example, an Army medic who blames himself for not saving his wounded buddy learns to incorporate details like their remote location, the extent of his friend's injuries, and the prognosis for such injuries. Fleshing out his memory makes it clearer, and as he develops a better understanding of what actually happened, his guilt and sense of responsibility subside. He'll spend time in highly stressful environments—say, the trauma ward of a hospital—and listen to the recording daily between therapy sessions. Recovery comes from not only clarifying the memory, but being able to talk about it without falling apart. A memory can be so visceral that talking about it can prompt an uncontrollable fight-or-flight response. So the medic's heart might race, his hands might get sweaty. He might get sick to his stomach, or cry. He knows he's in an office in the suburbs, but his body responds to the memory like he's in the firefight. That response is terrifying, overwhelming, maddening. It's so intense that it can feel like he's going crazy—or about to die. So his therapist asks him one crucial question: *Has anything bad happened to you as you've been talking?* "Remembering a trauma is not threatening—the trauma was, but remembering it is not," says Powers. "But we're programmed such that, when something really bad happens, the brain says, *Don't unlearn this too easily*. So it takes a lot more effort to unlearn something than to learn it—you can be in

combat once and have the experience override everything else. We do the exposure, then draw attention to the fact that they're safe—and that's what we want them to remember." Essentially, Powers wants that Army medic to leave the session remembering that when he talked about ammunition cooking off from the burning Humvee, and the trees exploding from the force of 40mm grenades, and his buddy extinguishing the flames that had melted the skin from his face, *none of it was actually happening*. He didn't need to react, he didn't need to run. The quicker he makes the connection that he feels safe when he talks about his trauma, the more muted his physiological reaction becomes, and the faster he'll recover. And that's where running comes in. Powers believes running might speed up that connection by boosting levels of a brain protein called brain-derived neurotrophic factor, or BDNF. The protein helps the brain adapt to stressors and repair itself, and it's low in most people with depression and anxiety—and particularly in those with PTSD. It's also involved with learning and memory: Essentially, more BDNF is associated with a larger hippocampus. And when you have to learn and remember stuff, bigger is better. That's because the hippocampus is a part of the brain responsible for contextual memory. According to Powers, brain scans have shown that like BDNF levels, hippocampal volume is low in people with PTSD. Which may explain why their contextual memory is off and every big bang is a bomb. Their brains aren't differentiating between being at a cookout on the Fourth of July with fireworks going off and being in a convoy in Iraq that hit an IED.