

YourCorps

Bulletproofing your brain

Corps plan's aim:
Sharpen your focus,
prevent PTSD

By James K. Sanborn
jsanborn@militarytimes.com

The Marine Corps has a plan to rewire your brain, but it isn't a mind-control plot inspired by a bad sci-fi movie. It's part of an effort to improve resilience throughout the service and, officials hope, stave off post-traumatic stress among those who work in dangerous or demanding environments.

Called Mind Fitness, this bold new program relies on a regimen of meditation-like exercises believed to alter the brain by strengthening the areas that help us keep focus and cope with stress. Through an eight-week guided course consisting of several classes that force Marines to address topics such as anger, sadness and fear, students are taught a slew of mental and physical exercises they are expected to continue on their own. Much like physical fitness, Mind Fitness is continual.

With stress a universal aspect of military life, officials are examining how the training could help Marines in all corners of the Corps. I Marine Expeditionary Force at Camp Pendleton, Calif., is already using it, and Training and Education Command in

Quantico, Va., has plans to include it as part of its Enhanced Infantry Squad Leader Course this spring. From there, it may become part of standard training for every Marine, much like the Marine Corps Martial Arts Program, according to Maj. Gen. Melvin Spiese, deputy commanding general of I MEF and one of Mind Fitness' biggest advocates.

"This is really about exercising the brain like you would exercise a muscle," he said. "You go through conditioning drills and exercises that enable you to strengthen certain aspects of the mind, that allow you to then more deliberately navigate the challenging situations that you might be in."

And the need is real. After a decade at war, stress-related disorders have been a significant drain on the ranks. In a recent Military Times poll, for instance, 11 percent of the respondents — 124 of 1,109 — said they had been diagnosed with PTSD or another mental health setback.

Compounding the problem: a culture that shuns perceived weakness and stigmatizes PTSD. Mind Fitness could help stave off and treat stress-related prob-

lems, while also sending a message it's natural to experience stress, and it's important to get help for it, the creator of Mind Fitness said.

The program is the brainchild of Elizabeth Stanley, a Georgetown University professor and former Army intelligence officer. She began developing it about a decade ago after struggling with stress and experimenting on herself with various stress-reduction techniques.

Combat, she said, is only one trigger for stress. Marines who work in an office are also susceptible. And if untreated, the effects can wreak havoc, altering a person's behavior and ability to focus on the job, disrupting sleep and impairing cognitive abilities.

Drawing on her own experiences, which include two deployments to the Balkans, Stanley realized that managing stress is more than simply feeling good. It hones a more effective warrior.

Mind Fitness marks a departure from the "stress inoculation training" the military has relied on for decades. There, the idea is to expose Marines to battlefield sights and sounds so that they illicit less of a reaction the next

time. But, Stanley said, these efforts to desensitize troops can actually contribute to chronic stress, which impairs readiness.

The ideal approach, she said, would pair stress inoculation with Mind Fitness.

"To build a resilience, we need a stress response to push us out of our comfort zone, but we also need effective recovery to come back to base line," she said.

The scientific concept behind Mind Fitness centers on the brain's ability to make new neural connections. Until about 20 years ago, doctors believed that by late adolescence the brain's structure was set, Stanley said. Modern research, however, has shown that the brain can be molded throughout one's life. It's a process called neuroplasticity.

How it works

Here's how Mind Fitness works:

Let's say you're in a vehicle convoy in Afghanistan. All of sudden, there's a blinding flash followed instantly with a deafening boom. The vehicle ahead of you disappears into a cloud of dust. It's an IED attack. No, it's an enemy ambush.



LANCE CPL. RYAN CARPENTER/MARINE CORPS

Marines take cover from paintball fire in July during a counterinsurgency field exercise at Camp Pendleton's Infantry Immersion Trainer. Researchers used the drill to evaluate the effectiveness of the Corps' new Mind Fitness training.



You pile out of your vehicle, and bullets are snapping all around. Your squad springs into action, repels the ambush, finishes the patrol and heads back to base. Sounds like any other day in Helmand province, right? But this time, something is different. Your hands won't stop shaking.

This is your body's natural reaction to stress. Whenever we are faced with real or perceived danger, our "fight or flight" response kicks in, Stanley said. It sharpens our senses, speeds up our heart rate, and contracts peripheral blood vessels in the arms and legs, leaving us less likely to bleed out if injured and more prepared to either run from or defeat what's threatening our well-being.

Once the threat is over, our mind and body should return to a relaxed state. Unfortunately, our "thinking mind" can prevent us from shedding all of our stress, especially when we are faced with fear over and over again, Stanley said.

"I've had many Marines share stories of having been out on a patrol, and they come back and they are inside the wire and they go to light a cigarette and their hands are shaking," she said.



SCOTT OLSON/GETTY IMAGES

Members of 3rd Battalion, 12th Marines, ride silently back to base last year following the death of a squad member during a patrol in Kajaki, Afghanistan. The Marine Corps is experimenting with new “Mind Fitness” training that aims to teach Marines how to confront traumatic situations and overcome them, lessening the likelihood they will develop stress-related disorders.

“They put the cigarette down and stick their hands under their arms to stop it because they are thinking ‘Oh, I must be such a coward. Why am I doing this?’ Well, by stopping it, they are preventing that discharge from happening, and over time that can lead to deregulation.”

The effects can be cumulative, meaning each time this response kicks in and it’s not properly addressed, a Marine’s ability to handle stress can diminish. And that can lead to anxiety disorders, with PTSD being on the most severe end of the scale. Consequently, critical battlefield assets such as memory and observation can be dulled.

“It’s really about adjusting the base line in the nervous system after you go through the spike,” Spiese said. “You don’t react any less when there’s an IED, a fire-fight or anything like that. What

does happen, though, is you’re able to re-regulate yourself much more quickly. But you can also maintain much better situational awareness. Part of the exercise is improving situational awareness at the time things are going on.”

That is done through repetitive mental exercises that force Marines to focus their concentration on the present, instead of allowing their minds to race with daily problems. Other exercises help them discharge built-up anxiety by thinking about bothersome things

and confronting them head on. And still others encourage them to visualize themselves in a calm, inviting place like on top of a mountain.

Initially, exercises build on developing concentration by focusing on a single thought such as breathing, or the body’s connection with its surroundings, be it the floor or a chair, or awareness of specific body parts. The idea is to

be “in the moment” and not let your mind wander.

Later exercises force Marines to confront painful or upsetting memories and adverse physical sensations such as trembling hands or difficulty breathing. That completes the stress cycle, she said, and helps an individual return to a calm “base line” state.

“Just like physical exercise changes our body, our muscles, our cardiovascular system, ... if we do these exercises that train our attention and concentration, we are beginning to rewire the brain,” Stanley said. “We are building new neural pathways.”

To do that, though, Marines have to develop the exercises as a habit, even after completing the initial eight-week, 20-hour guided course. They must continue to spend at least 30 minutes each day on Mind Fitness, she said.

‘Applicable to everything’

In 2009, while serving as the commanding general of I MEF, now Assistant Commandant of the

Marine Corps Gen. Joseph Dunford hosted a seminar to better understand PTSD and devise a strategy for helping Marines cope with stress. Mind Fitness, also being used by the Army and briefly tested by the Marine Corps in 2008, emerged as a possible solution.

I MEF has remained out in front on the initiative. This summer, several platoons with 1st Battalion, 4th Marines, and 3rd Battalion, 1st Marines, both out of Camp Pendleton, participated in Mind Fitness courses as part of their predeployment workup.

To determine how well the Mind Fitness training worked, military researchers wired them up and put them through Pendleton’s Infantry Immersion Trainer, which is meant to simulate realistic combat scenarios using role players and Hollywood-style effects. They monitored Marines’ heart rate, blood pressure, breathing and posture. The way a person carries his body is an indicator of stress and anxiety.

Results from the study, conducted by the Office of Naval Research, are being finalized, but Marines who participated have said they felt an immediate difference. After battle scenarios, they were able to calm themselves more quickly than those who had not had Mind Fitness training.

“The feedback that we’re getting from the Marines who have participated at the platoon level is, they think there’s something to it,” Spiese said.

Sgt. Muhesien R. Hassen, a squad leader with Lima Company, Battalion Landing Team 3/1, 11th Marine Expeditionary Unit, which is underway for a training exercise off the California coast, said that like many Marines who participated in the study, he was skeptical at first. Now, though, he has found it to be a powerful tool to help cope with stress.

“I was diagnosed with PTSD, and I went for almost three years with just keeping everything bottled up inside,” he said. “And finally, I just hit my threshold. ... With seeing a psychologist and medication, it really didn’t seem like it helped. With something like Mind Fitness, you can use it wherever and the biggest thing about it is, you have your Marines around you who have been through hell and high water. Those are the best people to talk to.”

Hassen began taking the Mind

Fitness course this past June and has stuck with the individual exercises ever since. It has made him a calmer, more thoughtful leader in the field and in garrison, he said. He has become more patient with his Marines and has developed the wherewithal to think of creative solutions to unpredictable situations.

Those who have battled severe anxiety aren’t the only Marines who find the training helpful. Maj. Jim Toth, a CH-46 pilot who serves as the staff secretary for I MEF’s commanding general, said it has helped him focus better while on the job.

During an hour-long, boring flight, pilots may find their minds wandering, but Mind Fitness, he said, has helped him stay sharp and thinking about the mission, instead of letting everyday worries creep into the mix. Toth, who deployed once to Afghanistan in 2001 and to Iraq in 2004 and 2008, said he wishes he had had the training before those deployments.

“It helps with everything. It’s applicable to everything you do, whether at home with family or at work in the Marine Corps,” he said. “This can be used for elite athletes, military, IBM executives — anyone who has any type of stress.”

Because of its wide applicability, Spiese has predicted that the training will likely spread to the rest of the Marine Corps.

“I mean, if this is something that we see is important to the being of a Marine, then we’d probably look at places that are common to all Marines — the entry-level training pipeline being one of them, boot camp, School of Infantry, The Basic School,” Spiese said.

But for Mind Fitness to really grab hold, it could require a change in attitude, because some may regard their participation in these exercises as an admission of weakness, Stanley said. Some even make fun of classes when they start, but they come to recognize the training’s benefits as they begin to experience positive results.

“There are still cultural barriers, but over the eight weeks of the course, they begin to see changes in themselves and the other guys in the unit, and they come around,” she said. “Be open and give it a try. It really works. It’s one of those things you have to experience yourself.” □