

OFF duty

Mental exercises can build power

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hen it comes to building mental toughness, it's all about conditioning your core - vour cerebral core.

Like the rest of your body, your brain can be flabby or ripped. And just like building rock-hard abs, if you want a six-pack brain, you've got to target the right mental muscles with a workout that builds mass

"There's research that shows you can actually change the shape of your brain with the right training," says John Schaldach, senior coach for the Mind Fitness Training Institute in northern Virginia

MFTI was founded by Elizabeth Stanley, a former Army intelligence officer who did tours in the Balkans and South Korea, studied under some of the top mind-bending fitness gurus and is now a professor of security studies at Georgetown University in Washington, D.C.

"There is a profound parallel between physical fitness and mind fitness," Stanley wrote in a recent edition of National Defense University's Joint Forces Quarterly. "Athletes know that with repetition, physical fitness exercises can produce training-specific muscular, respiratory, and cardio-vascular changes in the body."

Researchers are just beginning to learn how true that is for the mind as well. And just like strong bodies help protect against physical injury and sickness well-developed minds can help fend off brain drain and mental breakdowns.

"Mind fitness can be maintained even in high-demand and high-stress contexts by regularly engaging in certain mental

exercises," Stanley says. Just ask Maj. Jeff Davis. During the intense train-up for a deployment to Iraq in 2008, he and 30 of his Marines learned Stanley's mind-expanding techniques.

"I had my doubts going in, but I'm a true believer now," says Davis, who was the detachment commander of an Air Naval Gunfire Liaison Company at the time and now works at the Marine Combat Development Command in Quantico, Va.

"The techniques were hard at first. It was like running — a few miles kills you at first, but then one day you realize you're just in better shape. It was the same with this.

As part of a Defense Department study, the Marines were given tests to measure working memory and emotional state.

For those who used the mind training more while on their deployment, testing showed improved memory and mental health. The more they did the exercises, the better they fared. Marines who used the training less, or not at all, saw significant losses in working memory while tests of emotional steadiness put them on par with those suffering from post-traumatic stress disorder.

Davis could see the difference in his Marines. "The ones that were doing it regularly during the deployment were able pick up new tasks quicker and perform them better than the ones who weren't."

Stanley and MFTI are now involved in a broader study with units from the Army's 25th Infantry Division to track the benefits of mind training from pre-deployment through reintegration.



Think better —feel better

ou don't have to be a Jedi to know that your brain is your most powerful weapon. Whether you're trying to defeat the Dark Side of the Force or just get through your day, developing your ability to think about what you're thinking can boost your brainpower in surprising ways, say experts in the growing field of "mindfulness" training.

A few tricks to try for yourself:

Boost energy

"There is a commotion machine at work in our heads that creates tension in our bodies, usually

without us even realizing it," says psychiatrist Dr. Stanley Block, who is co-author of the "The Mind-Body Workbook for PTSD" and works regularly with activeduty troops and veterans.

You'll never disconnect the machine entirely, but you can learn how to switch it off. When that happens, energy levels rise.

Here's how: Pick one of your senses and focus it on something specific. "You can do this anywhere," Block says. "If you're driving, focus on how the steering wheel feels in your hand or the vibrations coming up from the road. Even if you're scrubbing a toilet, vou can focus on what the brush

Other thoughts will come, he says. That's OK. Notice them, label them positive or negative or just a passing thought, and then shift your focus back. It's the act of focusing on the moment that will boost your batteries.

Sleep better

Whether it's because you're worried or excited, exhausted or pumped up, if you're having trouble sleeping, it's usually because you can't stop thinking about the past or the future.

Even the noise of a snoring roommate — or artillery fire outside — keeps you awake more

A recent Defense Department study shows that Marines who performed an average of 15 minutes of mind-focusing workouts each day improved their working memory while reversing the brain drain that comes from high stress.

"Working memory is where you get situational awareness and mental agility, the ability to make good creative decisions," says John Schaldach, a mind fitness trainer involved in the study. "The benefits are tied directly to the time spent doing the exercises." Schaldach says. "Like any workout plan, doing it consistently is the key to success.

Some mental exercises he recommends:

The basic mental push-up

- 1. Sit with an upright posture, eyes closed or loosely focused on the ground in front of you. 2. Do a quick mental scan of your body, from head to feet, becoming aware of any areas of tension or discomfort - not necessarily to make it go away, just to see if it lessens by bringing attention to it.
- 3. Focus your attention on the physical sensation of where your bottom makes contact with the ground or your chair.
- 4. When you realize your attention has drifted, and it will - usually within a few seconds -

bring it back to the sensation of contact. 5. Every time your mind wanders and you bring it back, that counts as one rep.

The inner and outer shuttle

This exercise builds from the basic mental push-up.

- 1. Begin by focusing your attention on your main point of contact with the ground.
- Pay attention to the moment when your concentration locks onto that sensation. "It almost feels like landing, or striking the

tarnet " Schaldach says

- 3. Now deploy your focus to any specific sound around you - the hum of a computer or refrigerator, for example.
- 4. Once you feel your concentration has landed firmly on that sound, shift back to your contact point. This is the shuttle, shifting your attention back and forth from the inward to something outward. As you find your attention wandering, bring it back and continue.
- 5. Add variety to this exercise by shuttling between any of your five senses. "We've gotten feedback from soldiers downrange who've done this exercise while on patrol, shifting their focus from the feel of their weapon in their hands or the sensation of their feet as they walk to scanning their surroundings," Schaldach says.

3-5 minutes

Mindfulness with breathing

- 1. Sit with your back straight
- 2. Focus on your breathing.
- 3. Target your attention on whatever part of your

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because of your internal chatter about it than the noise itself, Block says.

To quiet your brain and get some rest, Block recommends focusing on a sound, ideally something continuous like a fan or other white noise.

When mind chatter or other noises start to distract you, "just notice those thoughts and then bring yourself back to focusing."

Rubbing your sheet with your finger or toe can also work, he says.

Zap stress

You may not ever be able to tame the chaos of life, but you can tune your mind to better handle it. "With breathing, you can bring the mind and body under better control and balance," says Sarah Ernst, a co-founder of San Diego-based Warrior Mind Training who has been teaching mind control techniques to troops across the country since 2005. Her advice to zap stress in three minutes or less:

- 1. Find a quiet spot. Sit down with your spine straight and close your eyes.
- 2. Breathing in through your nose, follow each inhale and each exhale with your mind. Begin to slow your breathing down by extending your inhales all the way down to your belly.
- 3. Notice places where you are holding tension. Is your neck cramped? Are your shoulders tense? Relax those muscles.
- 4. When thoughts arise, ignore them by simply staying focused on the air entering and leaving your body.
- 5. Inhale to a count of four

breathing is felt most prominently. "It could be the feel of the air moving through the nostrils or the rise and fall of your chest or belly."

4. As your mind wanders, recognize what has happened and bring it back to your breath. "There's nothing magical about the breath," Schaldach says. "It's the focusing and refocusing that's important."

3-5 minutes

Mindful movement

- 1. Stand with your arms at your sides.
 2. Slowly move your arms out to the sides and up, clasping your hands above your head. The movement should take about 20 seconds.
- "Notice the micro movement of the arms as they go up, tracking the way the sensations change. Notice the heat, tingling, soreness, coolness, whatever it is you're feeling in your arms as the stretch continues," Schaldach says.
- **4.** Slowly bring your arms back down again and repeat, continuously refocusing on those physical sensations as your attention drifts.

3-5 minutes

and exhale to a count of six or eight. With each in-breath, imagine the feeling of well-being pervading your body and mind. With each out-breath, imagine all the stress, worry and anxiety leaving.

6. Continue until the stress

subsides. Remind yourself to focus on the present moment.

Improve focus

Research confirms diaphragmatic — or belly — breathing, can help focus the mind, not to mention improve health and well-being.

With the help of retired Lt. Col. Dave Grossman and his book "On Combat: The Psychology and Physiology of Deadly Conflict in War and in Peace," Army researchers released an iPhone app dubbed the Tactical Breathing Trainer.

"Through repetitive practice and

training, anyone can learn to gain control of your heart rate, emotions, concentration, and other physiological and psychological responses to your body during stressful situations," according to officials with the Defense Centers of Excellence for Psychological Health. \square



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