




CENTER FOR RESEARCH ON
INTEGRATIVE MEDICINE
IN THE MILITARY





An underwater photograph showing several Navy recruits in a pool. They are shirtless and wearing dark swim trunks. One recruit in the foreground is looking towards the camera, while others are in various poses, some with hands on hips. The water is clear and blue.

“MY BUDDIES ASK ME WHY I MEDITATE.
I TELL THEM, ‘BECAUSE I CAN STAY
UNDERWATER LONGER.’”

(A US Navy SEAL)

*Navy recruits performing drown proofing exercises at BUDs
(Basic Underwater Demolition) training to become US Navy SEALs.*

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Center for Research on Integrative Medicine in the Military

“I FEEL EMPOWERED, KNOWING I CAN CHANGE
THE WAY I FEEL, AND IMPROVE MY MOOD.”

(A Yoga Nidra military research participant)

The Center for Research on Integrative Medicine in the Military (CRIMM) at the Samueli Institute is dedicated to keeping our troops healthy, thriving and “in their boots.” The CRIMM was developed for the specific purpose of conducting research to enhance performance, to manage pain and other symptoms of chronic disease and to reduce stress disorders for our troops and veterans. Our scientific discovery is rooted in identifying, investigating and evaluating complementary and integrative medicine approaches that augment the current care our troops and veterans are receiving.

More medical providers within the military medical system practice complementary and integrative medicine (CIM) than ever before. It is estimated

that up to a third of the active duty military and 50 percent of veterans may use a complementary or alternative medicine product or practice in any given year. Historically, the military has not undertaken a systematic approach to evaluating the use of these therapies, or the process for integrating them with conventional care to optimize performance. Now, military and veterans’ facilities across the country are implementing care programs and practices that use integrative medicine and focus on healing environments, and are looking to the Institute to develop and analyze the evidence base for these approaches.

The CRIMM collaborates with these military stakeholders and academic institutions across the



Center for Research on Integrative Medicine in the Military (continued)

country to conduct research that addresses the diverse populations and health needs within the military, such as:

- Young adults who may benefit from healthy life-management skills programs
- Troops suffering from recent acute injuries
- Veterans requiring chronic or end-of-life care
- Troops dealing with long-term recovery from disease or injury and the restoration of function
- Military family members

Our research applies to various levels of care:

- Veterans' and military hospitals
- Outpatient clinics
- Field and in-theater medicine
- The community and family

...and all stages of deployment:

- Active duty, National Guard and Reserve mobilizations
- Home convalescence
- Re-deployment
- Retirement



Our Research

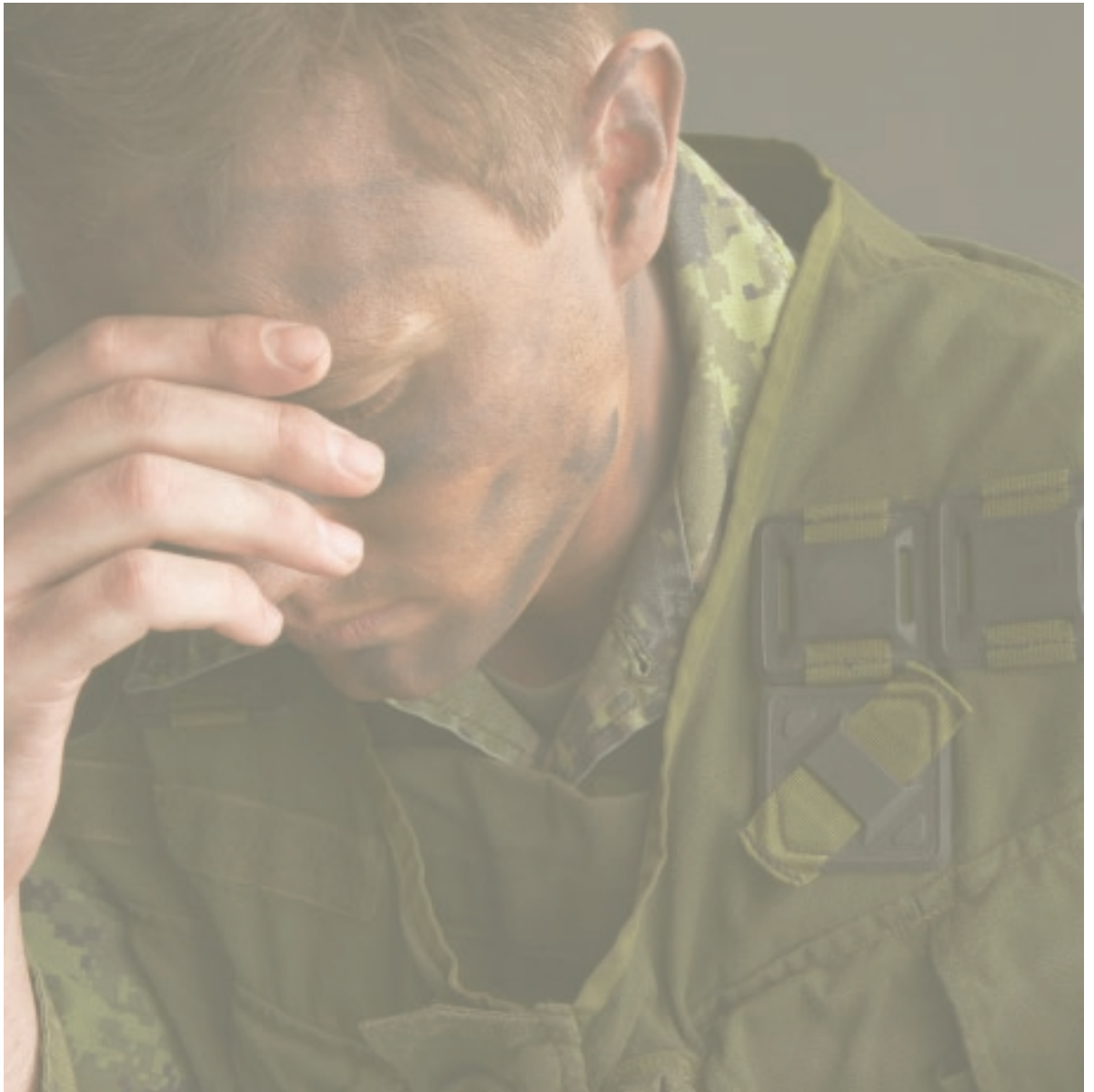
“AFTER YEARS OF SEEKING TREATMENT FOR CHRONIC BACK PAIN, I WAS TOLD BY MY DOCTOR THAT MEDICINE HAD NOTHING MORE TO OFFER ME. THEN, BY CHANCE, I FOUND THE INTEGRATIVE HEALTH CENTER. THEY TAUGHT ME HOW TO TAKE CONTROL OF MY PAIN, THROUGH MEDITATION AND GUIDED IMAGERY. I AM SO GRATEFUL...

(A patient at a V.A. Integrative Medicine Clinic)

Performance Enhancement Research Department

Because the military focuses on optimizing function and performance, often in the face of compromised and sub-optimal conditions, the Samueli Institute has dedicated a CRIMM research department to exploring complementary and integrative therapies that enhance performance of military personnel. Such therapies as acupuncture, vitamins and supplements, spinal manipulation and mind-body interventions have been shown to support and improve the well-being and readiness of today's war fighters.

One effort within the Performance Enhancement Research Department is the Metabolic Defense Research Program, which is investigating dietary and nutritional supplement use by military personnel. The program includes a survey of supplement use in the military; the development of a research agenda on dietary and nutritional supplements for military purposes; and pilot projects. These projects are exploring particular compounds to enhance performance through anti-inflammatory, immune-boosting or cognitive/physical resilience-promoting activity.



Our Research (continued)

“...THEY EMPOWERED ME TO BE MASTER OF MY OWN WELL-BEING. IN ADDITION, THEY TAUGHT MY HUSBAND ONE SMALL ACUPUNCTURE TECHNIQUE; NOW HE CAN ACTUALLY HELP ME WHEN I AM IN PAIN, INSTEAD OF STANDING BY AND WATCHING ME SUFFER.”

(A patient at an Integrative Pain Medicine Clinic)

Stress Disorders Research Department

Military personnel face extreme conditions of high stress on a daily basis. The Army’s studies of the mental health of troops returning from in the war in Iraq find that about one in eight report symptoms consistent with post-traumatic stress disorder. A recent survey also showed that fewer than half of those experiencing problems sought help, mostly out of fear of being stigmatized, hurting their careers or failing their battle buddies. Many complementary and integrative medicine approaches, such as yoga and meditation, can be taught outside of mental health environments and then self-administered, do not include drugs or invasive procedures and work in collaboration with ongoing care plans. This ease of application makes CIM approaches

conducive to field implementation and integration into military and veteran populations.

The Stress Disorders Research Department is committed to researching and evaluating CIM therapies that aim to mitigate stress symptoms in military populations. The Department evaluates treatments for stress management through research projects involving approaches such as:

- Yoga
- Guided imagery
- Meditation
- Acupuncture
- Biofeedback



Our Research (continued)

Pain and Chronic Disease Management Research Department

For most of its history, the military has depended upon opiate medications like morphine to treat pain. Although highly effective to treat acute pain, these drugs create problems of dependence and tolerance, which trigger the need for higher doses and more powerful medications. Eventually, prolonged opiate medication use may lower the pain threshold, putting patients in the intolerable situation of being in constant pain that is non-responsive to maximum drug doses.

Today, more than 90 percent of wounded troops make it off the battlefield—the highest survival rate in American history—only to overwhelm chronic pain clinics when they come home. The Pain and Chronic Disease Management Department is conducting research on new and innovative ways to control this escalating pain crisis. It is committed to researching CIM therapies that promote healing mechanisms for chronic pain and other symptoms of chronic illness in military populations. Chronic diseases, like pain problems, are rapidly becoming entrenched and poised to exact a heavy toll in military populations. For example, about

one-third of U.S. veterans suffer from arthritis that may be related to orthopedic injuries they sustained while in the military.

The Samueli Institute's MILCAM Program includes a number of research projects investigating CIM therapies and approaches for pain and chronic disease management. Such studies include:

- Acupuncture to treat both acute and chronic pain, such as low back pain and headache, in military medical settings
- Manual/Manipulative therapy for acute low back pain in combat-ready troops
- Auricular (ear) acupuncture in the Emergency Room for treating acute pain
- Evaluation of a multi-disciplinary Center for Integrative Medicine to treat pain in an Army medical center
- Evaluation of low-energy devices to treat pain and heal musculoskeletal overuse injuries such as shin splits and ankle sprains
- Assessment of a picotesla device to treat movement disorders in patients with Parkinson's Disease at a VA hospital

Our Partners

In order to take the lead in developing research projects of relevance to military health care, the CRIMM has developed strategic partnerships and collaborations with major military medical centers and training facilities across the nation, including:

- Walter Reed Army Medical Center
- Madigan Army Medical Center
- William Beaumont Army Medical Center
- The National Naval Medical Center
- Malcolm Grow Medical Center (U.S. Air Force)
- Uniformed Services University of the Health Sciences

Our civilian partners include academic, medical, and research institutions such as:

- Georgetown University
- Indiana University School of Medicine
- RAND Corporation
- Duke University



About the Samueli Institute

The Samueli Institute is a non-profit, medical research organization supporting the scientific investigation of healing processes and their application in health and disease.

The Institute's mission is to explore the scientific foundations of healing and to apply that understanding in medicine and health care to promote optimal healing environments (OHESM). The Institute is one of an elite group of organizations in the nation with a track record in both complementary and integrative medicine (CIM), healing relationships and military research.

For More Information

www.SamueliInstitute.org



SAMUELI INSTITUTE
EXPLORING THE SCIENCE OF HEALING

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