

A National Newsletter for Veterans and their Health Care Providers

WRIISC *Advantage*

SEPTEMBER 2009

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The WRIISC:

Experts in Post-Deployment Health

The War Related Illness and Injury Study Center (WRIISC, pronounced “risk”) is a national Department of Veterans Affairs (VA) program established to develop and provide expertise in post-deployment health for Veterans and their health care providers. Recognizing that deployed Veterans have unique health care problems, we strive to improve the health of Veterans with war related illnesses and injuries. There are three WRIISCs - located in East Orange, New Jersey, Washington, D.C. and Palo Alto, California. We provide specialized *clinical and referral services* to Veterans and their *health care providers* for a wide variety of post deployment health concerns.

Each WRIISC has a multidisciplinary team of health professionals who are experts in responding to a wide variety of post-deployment health concerns. This includes focusing on exposure related concerns and symptoms and syndromes that do not have clear medical explanations. The WRIISC has access to a wide variety of medical professionals including: medical doctors, physician assistants, nurses, nurse practitioners, specialists in environmental exposure assessments, psychologists, neuropsychologists, social workers, chaplains, health professionals that specialize in Complementary and Alternative Medicine (CAM) such as acupuncturists and yoga instructors, and risk communication, and health education specialists. We focus on maintaining and increasing our knowledge about deployment health topics important for both recently returned Veterans and Veterans of prior conflicts. Because there are only three WRIISCs, an important part of our mission is to educate providers on how to respond to Veterans with deployment related health concerns.



Giving the Care Veterans Deserve – A focus on clinical services

A unique aspect of the WRIISC program is that Veterans have the opportunity to be evaluated by our multi-disciplinary team of health professionals in one visit and findings from all of these providers are integrated. Our comprehensive clinical evaluations take a holistic approach, focused on addressing the health issues of concern to the Veteran and are unique in the context of the (Department of Defense) DoD-VA medical system. These examinations allow us to help the individual Veteran and their providers to better address the Veteran's post-deployment health issues.

At the end of an evaluation, each Veteran is provided with an individualized treatment plan – or road map - for managing their health going forward into the future. To ensure appropriate follow up care, the findings from the WRIISC evaluations are shared with the Veteran's primary care doctor. Because we focus on making the Veteran an active part of their treatment plan, we emphasize the importance of a good relationship with a regular health care provider. We work to help connect Veterans with health services in the VA health care system and regular VA health care providers.

Responding to Medically Unexplained Symptoms

Since our inception, the WRIISC has developed significant expertise on evaluating and assisting Veterans with complex deployment related health problems or symptoms that are difficult to diagnose or medically unexplained. Although there is no traditional “cure” for these symptoms and they often remain

unexplained, there are ways to manage these symptoms and improve the quality of life of Veterans with Medically Unexplained Symptoms (MUS). WRIISC clinicians and researchers are experts in looking at things shown to improve the quality of life from fitness and exercise to cognitive behavioral therapy to improving sleep hygiene. We focus on improving the Veteran's level of function through these things and also by empowering the Veteran to take an active role in treating their symptoms.

Recently Returned Veterans – Meeting the Mark

The WRIISC is on the front lines of responding to and caring for Veterans of Operation Enduring Freedom/Operation Iraq Freedom (OEF/OIF). One of our most important clinical missions is to prevent the development of long-term health problems related to deployment. On a broader level we recognize the significance of rapidly assessing emerging post-deployment health problems and concerns that may affect large numbers of recently returned Veterans nationally, which we then educate the VA and non-VA provider community about. Most importantly, we recognize that our newest Veterans need special attention and care during the transition to civilian life. Our programs and services for OEF/OIF Veterans focus on promoting Veterans' emotional wellness by identifying the issues affecting their well-being, readjustment, and offering assistance in managing those very real problems.

Addressing Exposure Concerns

Many Veterans, including those recently returned, have concerns that military exposures may have negatively impacted their health or could in the future. Addressing exposure concerns of our newest Veterans upon their return to the United States is an important part of meeting their needs and providing high quality post-deployment care. The WRIISC has extensive experience in conducting Veteran exposure assessments.



WRIISC occupational and environmental specialists conduct environmental exposure evaluations on all Veterans seen for comprehensive evaluations. These evaluations are also available as a stand alone service to any Veteran with deployment or service related exposure concerns in person or by telephone.

A National Resource for Providers

Part of the national mission of the WRIISC is to educate the primary care community on a wide variety of Veterans' post deployment health concerns, including medically unexplained symptoms and environmental exposures. Our efforts are modeled on good principles of risk communication and focus on communicating and providing education and training that will enhance knowledge of deployment health. We continue to provide educational and risk communication support to other clinicians throughout our local VA communities by providing seminars, workshops and conferences and developing written products such as fact sheets.

We provide specialized clinical and referral services to Veterans and their health care providers.

Importance of Research

Teams of researchers and clinicians at the WRIISCs work side-by-side to use research to improve clinical care. We are dedicated to conducting research aimed at preventing and treating war related health problems. Current WRIISC studies focus on issues including women's health, traumatic brain injury (TBI), and readjustment and reintegration. We envision that through our work there will be improved health of the Veteran population on a national level. [↪](#)



Identifying Emerging Problems in RECENTLY RETURNED VETERANS

The WRIISC, as a nationwide specialty service, evaluates Veterans after they come home from their deployment in hopes of quickly identifying issues they are dealing with that might affect large numbers of Veterans nationally. Identifying these emerging concerns of Veterans when they come home from their deployment is essential to most effectively addressing the problems our returning Veterans are faced with and to prevent problems from occurring in the future to the extent possible. Another goal is to educate the VA and Non-VA primary care community about our findings so that post deployment health can be improved for Veterans nationally. We accomplish this goal through many methods including the development of written educational materials, publishing research findings, and hosting seminars, workshops, and conferences.

Veterans seen at the WRIISC are provided with an individualized and comprehensive clinical assessment of

post deployment health which includes a thorough history and physical, psychological interview, neuropsychological screening, environmental exposure assessment, social work evaluation, and education session. Prior to their appointment, WRIISC Veterans are asked to complete an extensive health intake packet. This questionnaire consists of over 400 questions and screens the Veterans for chronic fatigue syndrome, irritable bowel syndrome, widespread pain, migraine disorder, depression, PTSD, traumatic brain injury and blast injury. The Sf-36 which is a health survey used in both clinical and research settings is incorporated to collect data on physical function and mental health symptoms. The questionnaire also assesses past medical history, family history, social history and military exposures.

In 2005, the WRIISC located in East Orange New Jersey (NJ WRIISC) implemented a clinical research extraction project for the purposes of methodically identifying

emerging post deployment health concerns. With approval from the New Jersey Health Care Institutional Review Board (IRB), we have been systematically extracting, through a retrospective chart review, the health concerns of the OEF/OIF Veterans we evaluate. With this effort, we hope to identify the medical and mental health concerns as well as the environmental exposures being reported. These findings along with the information collected in our screening intake packet, are data based for future analysis. As the numbers of Veterans we evaluate continues to grow, we will continue to look for emerging post deployment health trends in this population.

What have we seen so far?

In 2007, the WRIISC published an article in the Journal of Occupational and Environmental Medicine (Helmer et al, 2007) reporting the health and exposure concerns of the first 56 OEF/OIF Veterans evaluated at the NJ WRIISC. In this review, we found that the most commonly reported health concerns were related to three systems; musculoskeletal, ears, nose and throat (ENT) and gastrointestinal. Examples of specific conditions within these systems include rhinitis, sinusitis, chronic knee pain, and low back pain. Among the mental health concerns, PTSD was the most prominent diagnosis. Exposure concerns varied with the three most common being air quality, depleted uranium, and multiple vaccinations.

The findings in this paper offer insight into some of the unique needs of this population. Specifically, Veterans reporting exposure concerns were primarily worried about the possible long term health effects. This finding indicates the need for individualized evaluation of Veterans and education about exposure concerns. In recognizing this need the WRIISC has championed the effort to educate primary care providers about how

Veterans reporting exposure concerns were primarily worried about the possible long term health effects.

to conduct an environmental exposure assessment on Veterans and how providers can effectively and efficiently communicate with Veterans about their concerns. WRIISC clinicians have also hosted several events to teach providers about the top exposure issues, to give them the facts and the most recent research findings.

At the Association of Military Surgeons of the United States (AMSUS)

2008 conference, a poster titled Pain, mental health, and physical function in OEF/OIF Veterans was presented. We described the prevalence of self-reported chronic widespread pain in a sample of 223 OEF/OIF Veterans evaluated at the WRIISC. We looked at the associations among pain, mental health concerns, and function in this growing cohort using standardized self-report screening instruments which are incorporated into the WRIISC intake packet. In conclusion we found that pain is common in OEF/OIF Veterans, including chronic pain occurring in multiple locations and that this pain interferes significantly with daily functioning.

Currently, we are examining our data to find the prevalence of migraine in the OEF/OIF population evaluated at the WRIISC.

As the number of Veterans evaluated at the WRIISC continues to increase, we will continue to look for post deployment health trends in this population. Identifying these issues can have implications in practice which may include what recently returned Veterans should be screened for and how they should be treated. A unique strength of the WRIISC is our capacity to impact health and health care for our newest Veterans and Veterans of future eras by learning from both our clinical and research efforts and sharing this knowledge within the VA and non VA general provider community. 



COMPLEMENTARY AND ALTERNATIVE MEDICINE at the War Related Illness and Injury Study Center

The popularity of Complementary and Alternative Medicine (CAM) has grown tremendously over the past several years. One of the reasons for this is the growing recognition that conventional treatments have limitations—for example, medication side effects, prolonged time commitments, and perceived psychosocial stigma. As a result, more and more people, including Veterans, are turning to CAM therapies. At the WRIISC located in Washington, D.C. (DC WRIISC), we recently started a Complementary and Alternative Medicine Program dedicated to improving the health of combat Veterans returning from Iraq and Afghanistan. This program was created in response to some of the health concerns of returning combat Veterans who wanted additional treatment options for some of their complex health issues. Since the establishment of the DC WRIISC CAM program, many Veterans with deployment related injuries or illnesses have found these therapies helpful in reducing their symptoms and increasing their level of function. In our ongoing mission to improve the health of deployed Veterans, the VA's three WRIISCs are actively looking at how CAM treatments might further meet the needs of our combat Veterans.

What is CAM?

CAM is often described as a diverse group of health care practices and products that generally are not considered part of conventional medicine. CAM typically refers to any practice that does not fall within the conventional realm of Western medicine. There are many different types of CAM therapies. CAM treatments usually are divided into several categories:

- 1. MIND-BODY TREATMENTS:** These therapies use a variety of techniques designed to improve the mind's ability to affect bodily symptoms. Examples include meditation, relaxation therapy, prayer, and creative arts and music.
- 2. BIOLOGICALLY BASED THERAPIES:** These therapies are based on substances found in nature such as herbs, food, and vitamins. Examples include dietary supplements and herbal products.
- 3. MANIPULATIVE AND BODY-BASED TREATMENTS:** These therapies focus on manipulation and movement of one or more body parts. Examples include massage therapy, chiropractor manipulation, yoga therapy, and tai chi.

4. **ENERGY THERAPIES:** These therapies focus on the use of energy fields. Examples include therapeutic touch, Reiki, and bio-electromagnetic based therapies.
5. **WHOLE MEDICAL SYSTEMS:** A primary example of this is the theory of Traditional Chinese Medicine (on which acupuncture is based).

Why CAM?

There is a growing body of research that supports the use of CAM therapies for many physical and mental symptoms including depression, PTSD, addiction, headaches, musculoskeletal pain, Fibromyalgia, and insomnia. However, there are still a number of unanswered questions about CAM treatments, including questions about efficacy, quality, safety, and cost-effectiveness. As more Veterans and their providers seek CAM therapies, there is an increased demand for more research to support the use and integration of these therapies into the mainstream care of Veterans. As a national post-deployment health resource for the Department of Veterans Affairs, WRIISC researchers are actively trying to answer some of these questions so that returning combat Veterans can have a wide array of available options to meet their health needs.

CAM at the WRIISC:

Many VA Medical Centers across the country offer CAM treatments. Some examples include acupuncture, acupressure, aromatherapy, massage therapy, meditation, music therapy, progressive relaxation, stress management/relaxation therapy, tai chi, and yoga therapy. The CAM program at the WRIISC

“Wow - this is the most relaxed I can remember ever feeling”

is part of our overall comprehensive clinical program and is one of our ongoing efforts to provide innovative treatments to deployed Veterans with complex illnesses or injuries. Presently, Veterans enrolled in the DC



Yoga Nidra is a guided meditation practice that can lead to improved psychological, physical, and spiritual well-being. It teaches meditation skills that can be used to help people master and deal successfully with difficult situations and thus achieve a sense of ease in their lives. Yoga Nidra can be beneficial in healing unresolved issues, traumas, and wounds in the body, mind and senses and in recognizing the peace of mind that is always present in the midst of all of life's changing and sometimes challenging circumstances.

WRIISC CAM program may receive individualized acupuncture, group acupuncture, and/or Yoga Nidra therapies. So far, Veteran reaction to these CAM programs has been positive. Due to the high degree of Veteran satisfaction with these programs, all WRIISC locations are taking steps to expand their CAM programs. Some possible additional therapies may include Reiki and massage therapies. The goal of the WRIISC CAM program is to improve the overall health and well being of our combat Veterans.

Summary:

As Veteran demand for CAM therapies intensifies, we anticipate more and more VA Medical Centers will begin to offer these therapies. CAM therapies are valuable treatments that can be used to address many Veteran health concerns, including deployment related health concerns. However, it is important to discuss any CAM treatment decisions with your primary care provider as CAM treatments may, on rare instances, have side effects or interfere with conventional health care treatments. Additionally, because CAM treatments may vary in terms of quality, it is important to seek treatment from a reputable CAM practitioner. If you are interested in CAM therapy at the VA, please contact your VA primary care provider to find out

which CAM programs are available at your local VA. If you are interested in learning more about the WRIISC and our focus on CAM please see our website at:

www.warrelatedillness.va.gov.

For More Information:

The following websites provide more detailed information on CAM therapies:

- National Center for Complementary and Alternative Medicine:
www.nccam.nih.gov
- Office of Dietary Supplements:
www.ods.od.nih.gov
- U.S. Food and Drug Administration Center for Food Safety and Drug Administration (FDA):
www.cfsan.fda.gov

Some information was adapted from: **Department of Health and Human Services. National Institutes of Health. National Center for Complementary and Alternative Medicine.** Fact sheet: CAM Basics, Retrieved June 16, 2009 at:

<http://nccam.nih.gov/health/whatisacam>. ↗

TBI: What is it and how do we recognize and treat it?

HOT OFF THE PRESS

Traumatic brain injury (TBI) is a hot topic in the news beginning with an article in Newsweek citing brain injury as the “singular” injury of the Iraq conflict (March, 2006) to a pop culture magazine reporting on the seemingly minor, yet eventually fatal head injury suffered by Natasha Richardson (March 2009). There is increased interest in studying brain injury in the military and

growing concern for the long term health consequences of brain injury.

The challenges we face in diagnosing and treating TBI can be illustrated by the stories of Marine Cpl. Samuel Reyes, Jr. and Natasha Richardson. Natasha Richardson fell and hit her head during a ski lesson (no helmet). Although she appeared fine after the fall no loss of

consciousness and no obvious symptoms of head injury, a few hours later she was pronounced dead from bleeding inside the skull. Her injury would have initially been characterized as a “mild” traumatic brain injury (mTBI).

Cpl. Reyes suffered a non-penetrating head injury as a result of a roadside bomb. Due to advances in body armor, helmets, and drastically improved battlefield medicine, he survived a blast that as recently as 15 years ago may have been fatal. Cpl. Reyes received no penetrating injury to the head yet he is left with severe deficits in memory and concentration.

It is estimated that 20-30% of returning Veterans from the conflicts in Afghanistan and Iraq (OEF/OIF) have reported some type of head injury while serving on active duty. Head injury in combat is not new – what is new is that veterans are surviving other catastrophic injuries and left to struggle with the effects of TBI. The increasing number of TBI survivors and the vexing

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limitations they face has become an enormous challenge for both military medicine and for the Department of Veterans Affairs, which will treat these survivors for life.

What is TBI?

TBI is an event. It is typically defined by the experience of any outside force that leads

to at least one of these symptoms: loss of consciousness, loss of memory for things that happened immediately before or after the event, a change in mental state at the time of the event, or problems with specific neurological functions. The TBI event can be a direct blow to the head, an indirect force from a motor vehicle accident involving whiplash, a penetrating force of an object entering the brain, or force generated by a blast pressure wave.

Symptoms resulting from a TBI can differ widely depending on what part of the brain is involved (see diagram).

TBI Symptoms Based on Parts of the Brain Involved

Frontal Lobes:

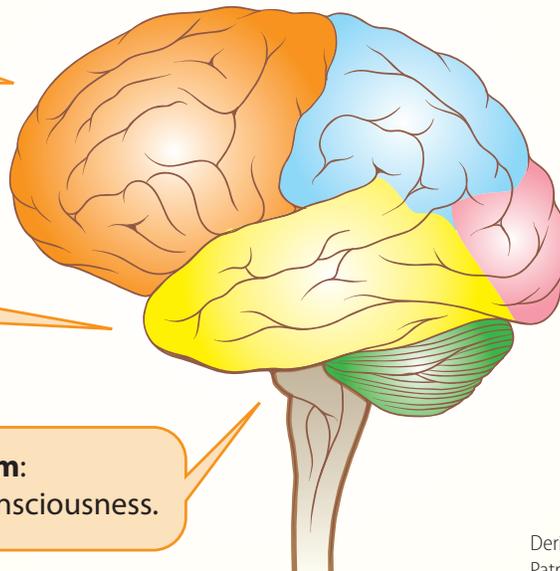
Loss of working memory, difficulty with attention, loss of immediate memory.

Medial Temporal Lobes:

Post-traumatic amnesia, loss of new learning, short-term memory loss.

Brain Stem:

Loss of consciousness.



Dominant Half of Brain:

Language, calculations.

Non-dominant Half:

Visuo-spatial (finding your way around).

Derivative work based on a medical illustration by Patrick J. Lynch (<http://patricklynch.net>) licensed under Creative Commons Attribution 2.5 License 2006

How do we recognize a TBI?

It is easy to recognize a penetrating brain injury but symptoms resulting from non-penetrating injuries may not appear until days or weeks after the injury. At the time of injury severity of TBI is characterized by ratings on several tests such as the Glasgow Coma Scale (GCS) which measures eye movement, ability to talk, and the ability to move. Other tests measure length of time that the individual lost consciousness or was disoriented, and whether or not they remember events before and after the brain injury.

These tests are important initially but they do not help to predict long-term problems. As Natasha Richardson and Cpl. Reyes cases illustrate, an initially labeled “mild” TBI can lead to severe problems later on including severe disability or death.

Symptoms of TBI correspond to the location of injury in the brain (*see diagram on previous page*). Neuropsychological testing can pinpoint specific functions that are impaired which map to particular locations in the brain.

A person may feel dazed and confused and not like themselves for several days or weeks after a mild TBI. Some symptoms appear right away and some develop days or weeks after the injury. Symptoms include headache, confusion, lightheadedness, dizziness, blurred vision, ringing in the ears, bad taste in the mouth, fatigue, change in sleep patterns and mood, and trouble with memory, concentration, attention, and thinking. These symptoms are often called post concussive symptoms. In battle, soldiers are often unaware they’ve experienced a TBI because the urgency of the battlefield is their number one priority. They may not realize it until much later when they begin to experience post concussive symptoms such as slower reaction times and emotional and cognitive problems.

How do we treat TBI?

On the battlefield, initial medical care prevents further injury by maintaining blood flow, blood pressure and oxygen. Once the soldier is stable, they assess the brain injury using the GCS and will rate the TBI accordingly. If available, tests such as X-ray, CT scan or MRI can detect if the skull is cracked and if there is bleeding or swelling. It is important to relieve pressure on the brain before more damage is done so these initial diagnostic tests are important.

Once a patient has recovered from the initial trauma, many brain injury experts recommend that the patient receive a thorough assessment by a trained neuropsychologist to determine the level of cognitive function, assess impairments in specific skills, executive function, and other behavioral changes. Based on these findings, it is possible to develop a customized program of rehabilitation for each patient.

Medications can help but caution should be used when prescribing medications to patients with brain injury. Brain injury can make the patient more sensitive to side effects of medications so it is important to start with very low doses and increase dosages very slowly. Avoid medications that can impair cognition such as certain anti-anxiety and pain relief medications.

What’s Next?

The WRIISC is involved in clinical research to improve diagnosis and treatment for OEF/OIF veterans who have received a brain injury as a result of deployment. Injuries that are the result of exposure to blasts from improvised explosive devices (IED) are difficult to diagnose. One goal is to determine the location and nature of the injury and to develop injury-specific rehabilitation programs that will help veterans regain function and enable them to lead healthy and productive lives. 

*It's possible to develop a
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GETTING THE WORD OUT

It is our goal to spread the word about WRIISC programs and services in both the broad VA community and other settings that serve Veterans. We work hard at this goal on both a local and national level- we want to help as many Veterans as possible. Each WRIISC is responsible for outreaching to Veterans and providers in their geographic/ assigned catchment area.

Some key employees in the VA community include hospital directors, primary care doctors, OEF/OIF coordinators, mental health clinicians and local vet center staff. Organizations outside the VA community include colleges and universities, military organizations and Veterans' service organizations. A key form of outreach is word of mouth from the Veterans we see and providers who have referred Veterans to us.

The WRIISCs are also involved in joint outreach/education efforts on a national level. One example is the breakout sessions we will host at a VA/DoD OEF/OIF Conference, *Evolving Paradigms II* in Las Vegas the week of September 21, 2009, that focuses on the health concerns of OEF/OIF Veterans. Topics that we will cover in this event will include understanding and assessing environmental exposures, an update on deployment research and complementary and alternative medicine. By sharing our expertise and educating a large number of health care providers about our programs and services we hope to reach more Veterans nationally.

In the past year, our efforts to "spread the word" have resulted in the establishment of a National WRIISC website. This site contains information for both Veterans and providers including information on our clinical services, the referral process, deployment related health conditions and concerns, exposure related information, current research studies and upcoming educational events and conferences. Both Veterans and providers will find links to fact sheets specific to their needs. [↪](#)



Please visit our National Website for more information on specific services and programs:

WWW.WARRELATEDILLNESS.VA.GOV

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