



FORCE HEALTH

PROTECTION AND READINESS



SPECIAL ISSUE



A LOOK INTO:

the past...
THE PRESENT...
the future



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From the Desk of
Ellen P. Embrey



Welcome to another issue of Force Health Protection and Readiness Magazine. This issue is not like those in the past. In this issue, our goal is to illustrate both the history of Force Health Protection and Readiness, from its days spent investigating Gulf War illnesses, through the present, and the current status of the important programs that are in place to treat and prevent deployment-related injuries and illnesses.

It is important for those we serve to understand how Force Health Protection and Readiness came to be. Understanding and acknowledging the past is a good way to predict the future. This issue pays tribute to all of the people and programs that have led to the great advances in care and treatment that we see today.

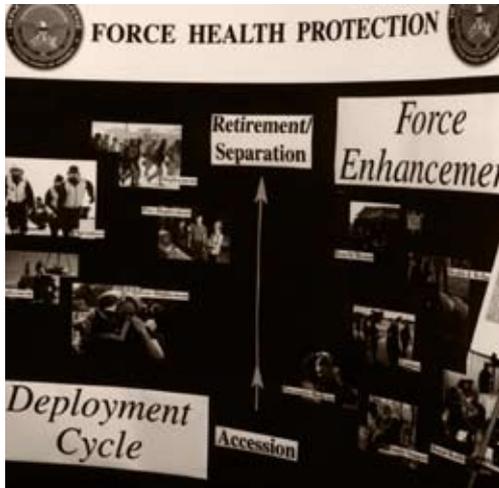
It is also vital to have information about all of the programs that Force Health Protection and Readiness has in place. Our goal is to prevent illness and injury as often as possible, while expertly treating those illnesses and injuries that do occur.

Some of the things we cover in this issue are mental health; the relationship between DoD and the VA; health care for reservists; and research. These topics span the history of Force Health Protection and Readiness, as well as delve into future ideas and goals. I hope this issue will give you a better understanding of Force Health Protection and Readiness and its goals and achievements.

Along those lines, one of our goals is to get reader feedback. If you have any questions, comments, subscription requests or story ideas, please write to us at FHPwebmaster@tma.osd.mil.

Ellen P. Embrey

Deputy Assistant Secretary of Defense
for Force Health Protection and Readiness



A HISTORY OF ADVANCEMENT FORCE HEALTH PROTECTION

By Pamela Houghtaling,
FHP&R Staff Writer

Images Provided By
Larry Sipos

FH&P&R has its roots in the 1990-1991 Gulf War. Veterans' unexplained medical symptoms and illnesses and their concerns over possible chemical, biological and environmental exposures during the war caused DoD to launch a special investigation. On November 12, 1996, Dr. Bernard Rostker was appointed to the Secretary of Defense. His office, known as OSAGWI, grew to a staff of 180 who were located in offices near the Pentagon.

Dr. Michael Kilpatrick, Dr. Francis O'Donnell and Larry Sipos remember the early days. Dr. Kilpatrick, today's deputy director of FHP&R, joined OSAGWI in November 1997 to head the medical section. O'Donnell arrived in April 1998 from the Army Surgeon General's Office to work with Kilpatrick. "We acted as a small medical advisory staff," says O'Donnell.

"OSAGWI's focus was primarily operational – digging out the details on what happened during the 1990-1991 Gulf War, looking at the data and drawing conclusions," explains Sipos, who brought analytical skills to the team in 1996 to investigate veterans' complaints. "It was the right thing to do. As veterans ourselves, we wanted to make sure that DoD addressed the concerns of the

Gulf War veterans." The investigations concentrated on operations and events during which Service members might have been exposed to chemical and biological warfare agents and other potentially hazardous substances.

The OSAGWI staff worked through piles of documents from the Gulf War and backlogs of telephone hotline and e-mail messages. In 1997, Rostker began holding town hall meetings around the country for the public and at military installations to address the veterans' concerns and to encourage them to participate in the Comprehensive Clinical Evaluation Program, a specific medical evaluation for Gulf War veterans, and to apply for veterans' benefits. Kilpatrick and O'Donnell spoke at the military meetings. OSAGWI published many investigations on its Web site.

In May 2002, Ellen P. Embrey, current Deputy Assistant Secretary of Defense for Force Health Protection and Readiness, was appointed director of the newly created Deployment Health Support Directorate (DHSD), which absorbed OSAGWI. Other deployments, such as Bosnia and Kosovo, had not received any particular attention. "We evaluated ways to expand the scope of OSAGWI to address all deployments," says Embrey.



Under her direction, the function of health policy was integrated with strategic deployment programs, combining OSAGWT's focus on investigation and outreach with the occupational and environmental concerns associated with deployment and the medical readiness of the force. Embrey also worked to implement the concepts expressed in an earlier Joint Staff document on force health protection – maintaining a healthy and fit force, prevention and protection from disease or injury, and medical and rehabilitative care – in preparation for the war in Afghanistan.

The principles of force health protection continue to guide the work of her organization today. “Drawing on the rich origins of OSAGWI, our mission has grown in scope, knowledge and effectiveness,” says Embrey. “Our goal is to provide the best possible health care and rehabilitation for those who deploy.”



 **Want More?**

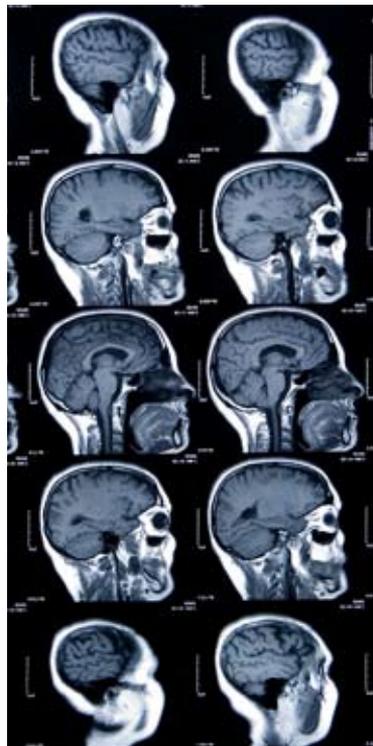
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addressing TRAUMATIC BRAIN INJURY

By Bill Yamanaka, FHP&R Staff Writer



America's Armed Forces in Iraq and Afghanistan have sustained repeated attacks from weapons such as rocket propelled grenades, improvised explosive devices and land mines. Service members suffering brain injuries from these devices require specialized care from providers experienced in treating traumatic brain injury (TBI) from mild to moderate and severe. Exposure to these incidents and to the stressors that inevitably accompany them has a dramatic effect on the overall psychological health of our deployed troops.

The collaborative efforts of the Defense Centers of Excellence for Psychological Health and TBI (DCoE) integrates

military prevention and protection, family and community outreach and support, clinical care and research expertise from across the federal and private sectors. Core components of the DCoE network include: the Defense and Veterans Brain Injury Center; the Center for Deployment Psychology; the Deployment Health Clinical Center; the Center for the Study of Traumatic Stress; the Telehealth and Technology Directorate and Center; and the National Intrepid Center of Excellence. [See box for more on these centers.]

DoD and the VA are working together everyday to: increase the number of mental health providers working with our Wounded Warriors and personnel

returning from theater; improve access to psychological health care; and jointly train together to meet the needs of Service personnel and veterans with psychological health and TBI issues.

CULTURE OF LEADERSHIP AND ADVOCACY

A culture of leadership and advocacy within DoD and the Services is a key principle on which they are focused. This principle gained momentum with the creation of the DCoE which opened its doors November 30, 2007. This "Center of Centers" is leading clinical efforts to have excellence in practice standards, training, outreach and direct care for the military community with



psychological health and TBI concerns. It will also provide research planning and monitoring in these important areas of knowledge. The DCoE will collaborate with the VA, National Institutes of Health (NIH) and elsewhere to create the clinical standards.

The DCoE is responding to recommendations of the DoD Task Force on Mental Health. This response includes the creation and/or maintenance of:

1. A pro-resilience campaign through partnerships with the Uniformed Services University

of the Health Sciences, NIH, VA, the Substance Abuse and Mental Health Services Agency, coalition partners and others in the public and private sectors.

2. Effective outreach and educational initiatives, including an information clearinghouse, a public Web site, a wide-reaching newsletter and a 24/7 call center for Service members, family members and clinicians.
3. A Telehealth network for clinical care, monitoring, support and follow-up. Such

a network involves electronic communications and state-of-the-art technology to apply diagnostic and treatment services to remote areas and from remote sources.

4. An overarching program of research relevant to the needs of Service members in cooperation with other DoD organizations, VA, NIH, academic medical centers and other partners – both national and international.
5. Training programs for providers, line leaders, families and community leaders.

The Centers Comprising the DCoE

Over the last 16 years, the Defense and Veterans Brain Injury Center has made significant contributions to our knowledge of traumatic brain injury (TBI); its members serve as DoD's primary subject matter experts. They have had a robust research program including the first-ever randomized controlled study of rehabilitation therapies and the first-ever Institutional Review Board (IRB) approved prospective study in a combat zone. They have a comprehensive network of clinical sites throughout DoD and the VA. They've created clinical practice guidelines for management and treatment of brain injured patients in theater, developed evidence-based guidelines for comprehensive care for severe injuries, and conduct surveillance of TBI in Service members.

In mid-2006, DoD established the Center for Deployment Psychology at the Uniformed Services University of the Health Sciences to train Service members and civilian mental health professionals to provide high quality deployment-related behavioral health services to military personnel and their families. They recently expanded their training audience to include all care-givers within the Military Health System.

Established in 1994, the Deployment Health Clinical Center (DHCC) developed the Specialized Care Program for those 1990 - 91 Gulf War veterans whose health concerns and symptoms presented unclear etiology. With Operations Iraqi Freedom and Enduring Freedom, DHCC's responsibilities expanded to include clinical care for veterans of all conflicts, deployment related health research, and deployment-related health education and training for patients and families.

The National Intrepid Center of Excellence (NICoE) is designed to provide leading edge services for advanced diagnostics, initial treatment plan and family education, introduction to therapeutic modalities, referral and reintegration support for Service members with post-traumatic stress disorder, complex psychological health issues, or traumatic brain injury. The NICoE will conduct research, test new protocols and provide comprehensive training and education to patients, providers and families while maintaining ongoing telehealth follow-up care.

The Center for the Study of Traumatic Stress (CSTS) provides knowledge, leadership and applications for preparing for, responding to and recovering from the consequences of war, operations other than war, disaster and trauma. As a partnering center of the Defense Centers of Excellence for Psychological Health and TBI, the CSTS focuses on translational research and knowledge - from the laboratory to the bedside, field and clinic, as well as in operations and public policy. The CSTS advances knowledge, health care and preparedness through education, research, consultation and training.



SEVERITY RATING FOR TBI

6. The National Intrepid Center of Excellence, currently in its design and planning phase, is anticipated to be completed by the end of 2009. It is funded by the Intrepid Fallen Heroes Fund and will be located adjacent to the future Walter Reed National Military Medical Center in Bethesda.

TBI DISCUSSION

A Traumatic Brain Injury may arise from direct or indirect force to the head that temporarily or permanently disrupts brain function. This can be caused by a direct blow to the head (e.g., boxing, a baseball bat, motor vehicle crash), an indirect force (car whiplash), a penetrating injury (fragmentation from blast/explosion), or blast/explosive pressure wave (explosion alone without other injuries).

Little is known about how blast related brain injury is similar or different from those brain injuries sustained via acceleration/deceleration mechanisms such as a motor vehicle crash. Research programs are examining this issue aggressively to find answers that will help us to better care for service members and veterans with TBI.

TBI is usually categorized based on injury severity. See chart to the right.

DIAGNOSING AND TREATING TBI

DoD is implementing an exposure screening program for all Service members returning from theater -- exposures to events that carry a risk of TBI will trigger further evaluation by the screening health care provider and possibly yield a referral to a specialist. This will complement the screening program begun by the VA. DoD and the VA are ensuring these data are shared across the Departments.

Clinical care practice may include

SEVERITY	GCS	AOC	LOC	PTA
mild	13 - 15	≤ 24 hrs	0-30 min	≤ 24 hrs
moderate	9 - 12	> 24 hrs	> 30 min < 24 hrs	> 24 hrs < 7 days
severe	3 - 8	> 24 hrs	≥ 24 hrs	≥ 7 days

GSC - glasgow coma score, AOC - alteration of consciousness
LOC - loss of consciousness, PTA - post-traumatic amnesia

- * MILD TBI is more difficult to diagnose both in civilian life and on the military battlefield. Mild TBI, otherwise known as concussion, can occur on the sports field and can range in recovery patterns.
 - * With mild TBI patients, full recovery can be within minutes to hours; a small percent age have symptoms that may persist months or years.
 - * Symptoms of mild TBI include headache, dizziness, nausea/vomiting, trouble concentrating, memory problems, irritability.
- * MODERATE TBI is defined as a Glasgow Coma Scale score between 9 - 12 and is a population of patients which fall between the mild and severity spectrum. Moderate TBI patients have the most variability in the clinical presentation picture.
 - * There is usually loss of consciousness, from an hour to a day; there can be confusion for days to weeks; and mental or physical deficits that can last months or be permanent.
 - * The vast majority of these Service members are identified and evaluated at theater-level medical facilities and are evacuated back to the United States for further evaluation and care.
- * SEVERE TBI usually results from a significant closed head injury, as in an automobile accident or most open or penetrating injuries, where there may be considerable residual deficits of brain function.
 - * Those with severe TBI may never return to normal, though this can be difficult to predict.
 - * There is an aggressive initial treatment program in theater, with neurosurgical expertise.

treatment of symptoms, rest /recovery strategies, an educational intervention and rehabilitation to optimize function. Additional factors in dealing with TBI include patient care coordination; provider, patient and family education; and emerging medical technologies that enhance TBI care.

The brain has a remarkable way to adjust after injury. Each brain injury and its recovery are different. Brain injury rehabilitation assists in reaching

maximum levels of independence. Care strategies are based on the severity of brain injury. The more severe brain injuries may require a variety of approaches to care. Physical therapy, occupational therapy and speech language therapy are all examples of the type of services that may need to be incorporated into a rehabilitative care program for a TBI patient.

DEPLOYMENT READINESS: A REVIEW OF HEALTH SURVEILLANCE

By Tamara McCall, FHP&R Guest Writer

Force Health Protection and Readiness operates with the goal of medically protecting and preparing Service members throughout their commitment to the Armed Forces. Now more than ever, with ongoing combat operations in Iraq and Afghanistan, DoD believes that providing Service members with individual health assessments, education and proper health care is of utmost importance.

DoD and the VA were directed to create a new Force Health Protection Program and instructed to ensure that every Service member will have comprehensive, life-long medical record of all illnesses to include: injuries, care received, inoculations and exposure to hazards. The goal of this new program was to prevent illness and identify and treat those that occur. During this same year, DoD created a policy that required pre- and post-deployment health assessments and blood samples. This instruction's objective was to evaluate Service members' health readiness for deployment or redeployment.

DoD went a step further and, through the revision of the DoDI 6490.03 'Deployment Health,' redefined the definition of 'deployment' to include 'all deployments.' This document also reemphasized the conducting of comprehensive health surveillance, which applies to all phases of deployment.

Most important are the activities associated with pre-deployment. As the instruction affirms, comprehensive health surveillance is one of the key components to monitoring an individual Service member to prevent health ailments commonly associated with deployment.

PRE-DEPLOYMENT

Pre-Deployment Health Assessments are administered within 60 days of deployment at a home station or mobilization processing station. The assessment consists of health-related questions geared towards determining a Service member's readiness to deploy.

POST DEPLOYMENT

Once a Service member returns from theater, he or she is required to complete a Post-Deployment Health Assessment, which includes a face-to-face assessment with a trained health professional within 30 days of returning home, either during in-theater medical out-processing or at a processing station.

Three to six months later, the Service member is required to complete a Post-Deployment Health Reassessment (PDHRA). This second post-deployment assessment is designed to identify health concerns that may have surfaced after completing the Post-Deployment Health Assessment.

Service members are required to complete a Periodic Health Assessment (PHA) annually. The PHA is designed to identify health problems and provide care.

Health Surveillance begins with determining pre-deployment readiness, which is an ongoing cycle. Today, Service members have the potential to encounter multiple deployments within a few years of service. FHP&R continues to provide quality long-term medical readiness.

Want More?

PDHRA Information

<http://fhp.osd.mil/pdhrainfo/index.jsp>

DHCC

<http://www.pdhealth.mil/>

medical research LEADS TO PROMISING DEVELOPMENTS FOR THE BATTLEFIELD

By Pamela Houghtaling, FHP&R Staff Writer

Discoveries in the laboratories are contributing to increased survival rates on the battlefield and improved therapies for rehabilitation and recovery. Today, 97 percent of those wounded on the battlefield survive because of the medical care. For example, new first-aid products designed to stop bleeding, such as a one-handed tourniquet and a fibrin-mesh bandage, are used by medics and corpsmen on the battlefield. DoD and all of the Services sponsor a number of research programs

PERSONAL PROTECTION EQUIPMENT

The last few years have seen improvements in personal protection equipment for Service members in theater. Protective body armor has become more effective with changes in standard issue equipment. Shoulder and neck areas are now covered with Kevlar material. Body armor includes ceramic chest and back plates, which are designed to prevent penetration by AK47 and M16 rounds. Protection is also now role- and mission-specific. Proper sizing of body armor is stressed to mitigate injury.

Research has led to the design of lighter helmets worn by today's Service members. Researchers are now looking at how the padding can be improved to reduce traumatic brain injury due

to motion and blunt trauma. Service members are wearing improved goggles and sunglasses, which lessen the chance of penetrating eye injuries. Eyewear has gone from regular sunglasses to a new wraparound type that offers ballistic protection. In addition, new hearing protection helps to counter hearing loss.

REHABILITATION AND RECOVERY

Medical research is focusing on the rehabilitation and recovery needs of returning Service members who have been wounded in Iraq or Afghanistan. It is reported that 82 percent of this group is suffering from injuries to their extremities, 33 percent has face or head wounds and 5 to 6 percent is suffering from burns.

Progress is seen in the development of prosthetics for Service members returning from theater with missing limbs. The Defense Advanced Research Projects Agency (DARPA) sponsors a major research program, Revolutionizing Prosthetics, with the goal of developing prosthetics that can be controlled by the brain and function as a natural limb. Clinical trials will begin in two years. DARPA reports that, this year, patients at Walter Reed and Brooke Army Medical Centers will begin trying out prototypes of these new limbs in a virtual training environment. Earlier

prototypes of prosthetic arms that allow far greater control and range of motion have entered clinical trials.

Important research is underway in psychological health and traumatic brain injury (TBI), which includes post-traumatic stress disorder (PTSD). For fiscal year 2007, the Congressionally Directed Medical Research Programs, which funds research in this area, received \$150 million for PTSD and \$150 million for TBI. This research is aimed at prevention, detection, diagnosis and treatment. More attention is being paid to combat-related mild TBI, or concussion, which can result from blast explosions. Within the last two years, there have been increased reports of mild TBI by returning Service members.

DoD has also established the Defense Centers of Excellence (DCoE) for Psychological Health and Traumatic Brain Injury with the goal of developing a national collaborative network of medical resources in support of Service members and their families. Scheduled to be fully functional by October 2009, the DCoE will serve as DoD's primary source of expertise on PTSD and TBI.

DoD is investigating the promising new field of regenerative medicine to help seriously wounded Service members. In April 2008, DoD established the Armed Forces Institute of Regenerative

Medicine (AFIRM), a cooperative research initiative led by the Army, to develop clinical therapies to help Service members recover from severe, disfiguring injuries. The regenerative medicine initiative is looking to apply stem cell research and technology in ways to re-grow new skin, muscles and tendons using a patient's own cells. The five major research areas are:

- Burn repair
- Wound healing without scarring
- Craniofacial reconstruction
- Limb reconstruction, regeneration or transplantation
- Compartment syndrome – a condition related to inflammation after surgery that can lead to increased pressure

AFIRM falls under the U.S. Army Medical Research and Materiel Command (USAMRMC), the Army's lead medical research organization. Program funding

is provided by DoD, National Institutes of Health, Department of Veterans Affairs and local public and private entities. Universities are participating in the initiative. AFIRM will work with the U.S. Army Institute of Surgical Research (USAISR).

Part of USAMRMC, USAISR, which is located with the Brooke Army Medical Center (BAMC) in San Antonio, conducts both laboratory and clinical trauma research. USAISR's Combat Casualty Care research includes bone and soft tissue injury, resuscitation fluids and treatment on the battlefield and hemostasis, or stoppage of bleeding. USAISR's Burn Center recently was combined with BAMC's Trauma and Critical Care Services to form DoD's Trauma Division, which will foster a link between trauma and trauma research.

These are some of the major ongoing research initiatives and organizations involved in saving and restoring the

lives of Service members. Military medical science will continue to focus on force health protection, moving the products of research from the bench to the battlefield.

The MHS delivers timely, quality mental health and behavioral healthcare. This includes Behavioral Health in Primary Care, Mental Health Specialty Care, Clinical Practice Guidelines and ready access to high quality, occupationally relevant primary care, along with model and demonstration programs designed to continuously learn and improve the system of care delivery.

Because no two individuals are alike, multiple avenues of care are open to our military community to create a broad safety net that meets the preferences of the individual. DoD does not rely on one single method or program to care for our military members and families.



U.S. Army Surgeon General Lt. Gen. Eric Schoomaker explains how researchers are growing a new ear for a badly burned Marine.

the right patient THE RIGHT PLACE the right time

By Jennifer Stone, FHP&R Staff Writer

“The fate of the wounded lays with those who apply the first dressing.”

Col. Nicholas Senn, 1844-1908

While on foot patrol in Iraq, a squad of soldiers encounters an improvised explosive device and comes under small arms and rocket-propelled grenade fire. In the midst of the chaos, the squad’s combat medic runs over to assess the injuries and determine what actions need to be taken to save the lives of his fellow soldiers.

Through lessons learned from previous military conflicts, the treatment outcomes and survival rates for these soldiers will be markedly improved. Implementation of the Deployable Medical Capability helps make this possible.

The Military Health System (MHS) works to ensure that the Deployable Medical Capability is effective, interoperable, agile and responsive to the needs of Commanders during times of conflict. The components of the MHS’s Deployable Medical Capability involves all aspects that improve the “deployability” of US military forces and include: First Responder Care, Essential Care (Forward Resuscitative Care), Definitive Care In-Theater (Theater Hospitalization), En Route Care, Patient

Movement within a Joint Operational Area (Intra-Theater), Patient Movement Outside of a Joint Operational Area (Inter-Theater), Joint Medical Logistics and Infrastructure Support, Joint Theater Medical Command and Control (JTMC2).

One segment of the Deployable Medical Capability involves the ongoing efforts across the Services that have lead to improvements in how Soldiers, Sailors, Marines and Airmen receive treatment when injured while deployed and, therefore, have increased the survivability of Service members injured on the battlefield. The development of a joint Services theater trauma system is part of these efforts.

Military leadership has based their efforts for developing and improving the theater trauma system on the idea of getting “the right patient to the right place at the right time.” Each of the components of the Deployable Medical Capability are in keeping with the meaning of this motto.

The first step in improving the survivability rate of those injured on the battlefield is to improve care given by first responders. The Services have developed numerous training programs and evolved them to teach medical providers how

to treat the injured within the realities of medical care on the battlefield. Courses such as Tactical Combat Casualty Care, Emergency War Surgery and the Joint Forces Combat Trauma Management Course have been integral in improving the Deployable Medical Capability of the MHS.

In addition to training, improvements to care in the battlefield center on treating the most preventable causes of death on the battlefield. Based on the experiences of medics and corpsman on the battlefield, new devices for hemorrhage control are used. Examples include dressings that stop bleeding and newly tested tourniquets.

Once evacuated from the immediate battlefield environment, the wounded receive basic surgical resuscitation at a mobile medical unit. Care is limited to life sustaining surgery that stops further damage. Each of the Services offers a slightly different set-up at this level, but the type of care remains the same. Under the Deployable Medical Capability, this is known as Essential Care or Forward Resuscitative Care.

2006 Comparative US Combat Casualty Statistics

	World War II	Vietnam War	Iraq/Afghanistan
Killed In Action (%)	23.7	21.3	12.5
Died Of Wounds (%)	3.4	3.5	4.1
Total Mortality (%)	22.8	16.5	8.8

If injured Service members need care beyond life-sustaining surgery or resuscitation, they are transported to a facility with the capability to immediately repair, restore, stabilize, or rehabilitate casualties within the theater.

Surgery at these medical facilities focuses on immediate repair of the injury. Care at this level, known under the Deployable Medical Capability as Definitive Care In-Theater or Theater Hospitalization, also varies slightly by Service and is not as mobile as the medical units at the Essential Care level. This is the highest level of care available in a combat zone, and rivals the care provided at US trauma centers.

The reduced mortality rate of Service members involved in the conflicts in Iraq and Afghanistan is directly attributed to these improvements to the military theater medical system to provide the “right care at the right time.”

For Operation Iraqi Freedom and Operation Enduring Freedom the injured are typically evacuated out of combat zone facilities within two days to Landstuhl Regional Medical Center (LRMC) in Germany. It is here that injuries are further assessed and treated before moving the injured, usually after only a few days, to an appropriate state-side military medical treatment facility for additional care.

Critically injured patients with multiple trauma, burns and other life-threatening conditions are sometimes immediately evacuated to LRMC and receive En Route Care while in the air on specially equipped airplanes. A large percentage of the wounded that pass through LRMC, before heading back to the States suffer from non-battle injuries.

The Deployable Medical Capability encompasses the development and use of medical information systems for patient tracking from in-theater facilities to state-side facilities, as well as technologies that can be used in

theater to allow for better assessment of injuries.

The Deployable Medical Capability provides a level of care never seen before, as demonstrated in the increased survivability of combat and deployment related injuries. With increased survivability and recovery rates comes a healthier, stronger fighting force.

A less tangible, but arguably equally important outcome of providing care under the credo of “the right patient to the right place at the right time” through the Deployable Medical Capability, is the comfort that comes with the knowledge that the wounded will be well cared for. The impact can be seen in the morale of Service member’s and their families.



Photos by: Staff Sgt. Austin May, Barry Hirayama, Senior Master Sgt. David H. Lipp, Cpl. Michael Haas, Staff Sgt. Angeliqne Perez

LET'S TALK ABOUT DEPLETED URANIUM AND EXPOSURE TESTING

By Derek White, FHP&R Staff Writer

Veterans and Service members have been concerned with Depleted Uranium (DU) exposures and the possibility of health effects for some time. DoD and the VA continue to collaborate to ensure Service members and veterans are knowledgeable about the uses and benefits of DU, the medical science pertaining to DU health risks and the policies and programs on DU exposure testing.

WHAT IS DEPLETED URANIUM?

Depleted uranium is a form of uranium, a naturally occurring, slightly radioactive heavy metal found all over the world. Depleted uranium is the byproduct remaining after enriching uranium for use in nuclear power plants and nuclear weapons. DU, which has had most of its radioactivity removed, is 40 percent less radioactive than natural uranium. People are routinely exposed to low levels of natural uranium in food, water and air.

The health effects associated with natural uranium, which has the same chemical properties as DU, are very minimal, and are based on 50 years of scientific research. The military uses DU in armor-penetrating munitions fired by Abrams tanks, Bradley Fighting Vehicles and several aircraft systems to defeat enemy armored vehicles. Depleted uranium is also used as armor in Abrams tanks, where it saved the lives of many US Service members during the 1991 Gulf War. Commercial uses of DU include aircraft and sailing ship counterweights and radiation shielding of industrial and medical radiation sources.

HOW MIGHT SERVICE MEMBERS BE EXPOSED TO DU?

After 5 years of assessing possible DU exposures in over 2500 US Service members who served in Operation Iraqi Freedom, it appears that the only definitive means of experiencing a meaningful exposure to DU is through DU metal fragments entering one's body. This usually occurs as a result of a DU weapon striking an armored vehicle.

DU must be taken into the body to be a potential health hazard. Some Service members have been exposed to very small amounts of DU dust particles when they occupied vehicles hit by DU munitions, rescued occupants from those vehicles or performed other operational duties involving damaged, contaminated vehicles (equipment removal, repair, salvage, etc.). In such cases, low level exposures may have occurred when breathing air containing DU dust or transferring DU dust from contaminated surfaces to the mouth or to open wounds.

In nearly all cases, the small amount of DU dust that enters the body is cleared so rapidly that by the time people are tested for exposure to the DU dust, it is no longer detectable even at very low levels.

HEALTH RISKS ASSOCIATED WITH DU EXPOSURE

Based on current medical science, there is no reason to believe that levels of

exposure to DU normally anticipated with its use on the battlefield pose either short- or long-term health risks to our Service members or veterans. However, there are still some unanswered questions regarding any health risks that may be associated with long-term exposures, especially in the form of retained DU fragments.

In 2007, the VA requested the Institute of Medicine (IOM) to perform a follow-up literature review to complement an earlier study that the IOM performed to "review, evaluate and summarize the scientific literature regarding the association between exposure to DU and long-term human health outcomes." The IOM's overall mission is to serve as adviser to the nation to improve health. Using the best medical scientists throughout the United States, the IOM provides unbiased, evidence-based and authoritative information and advice concerning health and science policy to policy-makers, professionals, leaders and the public.

Based on the IOM's review of over 1000 recently published scientific studies, they concluded that there was "insufficient evidence to determine whether an association exists between exposure to depleted uranium and all the health outcomes examined."

While the IOM's conclusion is reassuring based on many years of study by noted scientists throughout the world, the DoD and the VA remain cautious on the possibility of long-term health effects. For this reason, they both maintain very active DU urine testing programs

to identify personnel who may have DU exposures. Service members with significant exposures to DU are offered a referral to the VA's DU Follow-Up Program.

Since the 1991 Gulf War, the VA has medically followed about 80 Service members with high level DU exposures. Through extensive medical testing offered to these Service members every two years, no evidence of any health effects resulting from their DU exposures, including any birth defects in their children, has been identified.

DU EXPOSURE TESTING

In 2003, DoD policy established a process to ascertain Service members who should be tested for DU. These personnel are required to complete a DU exposure assessment form and have a 24-hour urine test as soon as possible. Active duty personnel may request this test at a military treatment facility. Veterans who are separated may request this test at a VA Medical Center.

Service members who test positive for DU are offered referral to the Veterans Affairs Depleted Uranium Medical Follow-up Program at the Baltimore

VA Medical Center. To date, only 10 individuals deployed with Operation Iraqi Freedom have been identified with detectable levels of DU in their urine out of the approximately 2500 individuals tested. None of these individuals have uranium levels (natural or depleted uranium) that are known to pose a risk to their health.

THE DU FOLLOW-UP PROGRAM

In 1993, following the 1991 Gulf War, the VA and DoD established the DU Follow-up Program at the Baltimore VA Medical Center to monitor possible health effects associated with high level DU exposures and to provide treatment recommendations. The DU Follow-up program provides comprehensive physical exams and testing of the kidneys, liver and immune and central nervous systems of the veterans, most of whom have confirmed DU metal fragments in their bodies.

Because the DoD and the VA both remain cautious on the question of whether there might be some long term health effects associated with DU exposures, they will continue to support research and operate a DU exposure testing

program to identify those individuals with DU exposures. DoD will also continue taking precautionary measures to limit the exposure of individuals to DU. When used with those precautions, and based on current medical science, any health risks associated with the use of DU appear to be vastly outweighed by the benefits.

Want More?

VA DU Follow-Up Program
1-800-815-7533

Further Info
<http://www.vethealth/cio.med/va/gov>

Deployment Health and Family Readiness Library
<http://deploymenthealthlibrary.fhp.osd.mil/>

Depleted Uranium Library
<http://fhp.osd.mil/du/>



“No evidence of any health effects resulting from their DU exposures has been identified.”

POST-DEPLOYMENT HEALTH CARE FOR RESERVES

By Derek White, FHP&R Staff Writer

Certain Reserve Service members are eligible for the Transitional Assistance Management Program (TAMP), which offers transitional TRICARE health care coverage at no cost to reservists and eligible family members for 180 days. To be eligible, reservists must have been ordered to active duty for more than 30 consecutive days in support of a contingency operation. They are automatically enrolled in TAMP following discharge.

Three plans are available: TRICARE Standard, TRICARE Extra and TRICARE Prime. Active duty reservists

and family members enrolled in TRICARE Prime who wish to continue their enrollment upon separation from active duty status are required to re-enroll. When TAMP coverage ends, based on eligibility, reservists may enroll in TRICARE Reserve Select (TRS). TRS coverage will begin the day after the TAMP health care coverage ends, if certain criteria are met.

WHAT IS TRICARE RESERVE SELECT?

TRS provides comprehensive health care coverage. Annual deductibles, cost-shares and a catastrophic cap apply, plus a monthly premium is charged. For a complete list of benefits and cost-shares, refer to the TRICARE Reserve Select Handbook on the TRICARE Web site.

WHO IS ELIGIBLE?

The new TRICARE Reserve Select premium-based health plan is available to members of the reserve component and their families, who meet certain eligibility criteria such as:

- Being called or ordered to active duty, under Title 10, in support of a contingency operation on or after September 11, 2001, for greater than 30 days.
- Serving continuously on active duty for 90 days or more under such a call or order the length of time served determines the maximum period or coverage you may purchase under TRS.

- Agreeing to serve in the Selected Reserve for a length of time (in whole years) equal to or less than the period of eligibility for TRS.

ASSESSING THE POST-DEPLOYMENT HEALTH STATUS OF RESERVISTS

Post-deployment health assessment questionnaires (DD Form 2796, Post-Deployment Health Assessment) are given to each Service member within 30 days of return from deployment or release from active duty. The assessment gathers information on the health concerns or problems that the Service member feels are related to deployment.

Face-to-face health assessments with health care providers are provided to determine the need for referral for appropriate medical follow-up. Military and VA providers use the jointly developed Post-Deployment Health Clinical Practice Guideline to focus health care on post-deployment problems and concerns of the Service members returning from deployments.

Want More?

TRICARE Service Centers Regional

North 1-877-874-2273

South 1-800-444-5445

West 1-888-874-9378

Overseas Pacific/Latin America & Canada/
Puerto Rico & Virgin Islands/Europe

1-888-777-8343

TRICARE Reserve Select Handbook

<http://www.tricare.osd.mil/reserve/reserveselect>

VA Health Care Benefits

Additionally, Services activated for federal duty can qualify for a number of health care services provided by the Veteran's Affairs (VA).

For more information on VA health care programs, go to the VA Web site at

http://www1.va.gov/health_benefits/ or
<http://www.va.gov/>

WARRIOR PSYCHOLOGICAL HEALTH: FROM BASE TO BATTLEFIELD AND BACK

By Bill Yamanaka, FHP&R Staff Writer

P psychological health is a prime focus in today's picture of national defense and encompasses complete well-being, mental, emotional and behavioral. It is associated with an individual's ability to engage in productive and meaningful activities, have fulfilling relationships with other people, adapt to change and be able to cope with adversity. The sustained psychological health of Armed Forces personnel is critically important to Defense and military leaders. Aspects to psychological health include related prevention, treatment and health maintenance.

DoD has a broad range of programs designed to sustain the health and well being of every military and family member in the total military community. Each Service initiates quality of care functions, including essential clinician training. Specific combat stress and deployment mental health support programs are available before, during and after the deployment cycle. These provide support tailored to the Service's mission and risk factors their personnel might face.

In addition, cross-functional planning teams bring together subject matter experts from across the services, the Joint Staff and DoD. Each Service trains mental health providers in clinical practice guidelines (CPGs) and evidence-based treatment for post-traumatic stress disorder (PTSD). Primary care providers will also be so trained.

Services available at military installations include health and wellness programs, stress management, family readiness and community support centers, family readiness groups, ombudsmen, volunteer programs, legal and educational programs and chaplains, among many other community programs.

The Army Quality Management Office – the DoD executive agent for Clinical Practice Guidelines (CPGs) – will create a formal CPG for mild TBI, to be completed within one year. DoD will further collaborate with VA on the development of this CPG to assure a standard approach to identification, treatment and follow-up for mild TBI cases.

Having standard guidelines and trained staffs are only part of the quality equation. A similarly important factor is having the proper equipment for the provision of care. The Army and Marine Corps are the population at highest risk for potential brain trauma. Therefore, funds were used to purchase or lease equipment to enhance screening, diagnosis and recovery support for Soldiers and Marines.

The deployment cycle has a vigorous screening regimen as a result of recommendations from mental health task forces and independent review groups. Educational programs are taking place throughout the deployment cycle. Medical conditions that may limit or disqualify deployed Service members

are continually assessed. A spectrum of prevention, stress control and mental health care are available in-theater. Expanded clarification of deployment limitations for mental health conditions and psychotropic medications are now in place to ensure consistent standards across all branches of Service.

A post-deployment health assessment (PDHA) and education process is conducted upon returning from deployment to identify health concerns that might have arisen. An additional post-deployment health reassessment (PDHRA) with additional education takes place 90 to 180 days after deployment to identify any issues that might arise in that time frame.

Periodic health assessments (PHA) also are conducted to identify any health issues a person might have prior to entering the pre-deployment cycle. In addition, a Mental Health Self-Assessment is available 24/7 as an additional tool for Service members and their families.

Want More?

Mental Health Self-Assessment

<http://www.militarymentalhealth.org> or
1-877-877-3647

military health system's CONTINUUM OF CARE

By Bill Yamanaka, FHP&R Staff Writer

The Military Health System is forging ahead in the effectiveness of its continuum of care. Initiatives, programs and policies begin focus on Service members and their families during accession into service and continue through completion of their obligation and beyond.

RESILIENCE

Resilience promotion is a key effort to improving the overall health of our Service members. Overall health goes beyond the obvious physical areas and includes the less visible, psychological aspects. Education, care and treatment are all used to make people stronger and more adaptable to the rigors of military life.

Despite the strength achieved, there has been less than positive reactions when Service members seek help for medical ailments, especially that of mental well-being.

The negative labeling, or “stigma,” that is given to a personal condition has persisted through time and even more emphatically toward people with mental disorders or perceived disorders. Stigma is characterized by bias, distrust, stereotyping, fear, embarrassment, anger and/or avoidance.

An important part of reducing stigma is education. The recently established Defense Centers of Excellence for Psychological Health and Traumatic

Brain Injury (DCoE), is developing a standardized curriculum to educate leaders, Service members and family members. In the interim, each Service has been funded to implement specific leadership training. That training emphasizes overarching principles yet is adapted to the culture of each individual Service.

Those in healthcare and community support are working tirelessly to support our deployed forces and their families. Burnout, or “compassion fatigue,” is a huge and constant concern. Thus, part of the mission of the DCoE is to develop a new curriculum of training or to validate existing training that will help avoid or reduce burnout.

Several education and outreach initiatives have been expanded for families. The Mental Health Self-Assessment Program is available in person and in a Web-based format. This program has been well received and now includes school-aged family members. The Signs of Suicide Program is an evidence-based prevention and mental health education program in DoD Educational Activity schools.

For younger children, the Sesame Street Workshop has proven to be quite successful in helping them understand and manage the emotions that go along with having a parent deployed. A recent update includes the impact of having a deployed parent come back with an injury or illness.

INTERVENTION AND CLINICAL CARE

Reducing potential health concerns is being achieved by early identification and intervention through a screening and surveillance initiative. There is ongoing improvement in electronic tracking, monitoring and management of psychological health and Traumatic Brain Injury (TBI) concerns. Questions have been updated on both the Post-Deployment Health Assessment (PDHA) and Post-Deployment Health Reassessment (PDHRA) to facilitate TBI screening. Initial identification teams are also being used to ensure screening is accomplished in a consistent manner and to further evaluate and treat those who screen positive.

Clinical care practice goes beyond treatment of symptoms and rest/recovery methods. There is thorough patient care coordination; educational intervention and rehabilitation with provider, patient and family; and proper use of emerging medical technologies that enhance TBI care.

ACCESS AND CARE TRANSITION

The ability to deliver the highest quality care depends, in part, on easy and timely access. This access is dependent on the staff, both military and civilian, to meet the demand within acceptable standards. Wait times for appointments must be reasonable and the services provided

should be in a location where the Service or family member can interface with the provider without undue difficulty.

As of October 2007, it is policy that patients should be scheduled for mental health appointments, when warranted, within seven days of request. In addition to increasing access for initial mental health appointments, behavioral health functions are being moved forward into primary care settings. Behavioral health providers can then easily consult with primary care providers to help identify mental health conditions and make the appropriate referrals for treatment or manage the care in primary care when appropriate.

More than in previous conflicts, it is important that a patient- and family-centered system be established, one that manages care and ensures healthcare systems and phases of care work together smoothly. The large number of mobilized Reserve Component members requires a skillful transition between duty status and military/civilian health care systems, as well as to the VA.

Transition and coordination of care programs help wounded war fighters

and their families. This assistance is needed for the transition between clinical and other support resources in a single location, across different medical systems, across geographic locations and across functional support systems.

Better methods are constantly being pursued to ensure provider-to-provider referrals when patients move from one location to another or one healthcare system to another. Several key programs in the Services and Reserve Components are also supporting and improving transition activities by hiring care managers.

DoD and VA coordinated efforts are stronger than ever to reach an effective system of care. The system is being built to better engage users, develop a plan of care and link the healthcare users to health and other services. Information sharing is a critical part of care coordination and there is marked improvement in that area for DoD and VA. Also, the DCoE is developing telehealth and technology systems to fully document and share information, as well as tracking and coordinating care for war fighters and their families as they transition back to their hometowns.

RESEARCH

Research and development provide a foundation upon which other programs are built. The intent is to rely on evidence-based programs, such as developing a systematic program of research that will identify and remedy the gaps in psychological health and TBI knowledge. Integrated individual and multi-agency research efforts are underway.

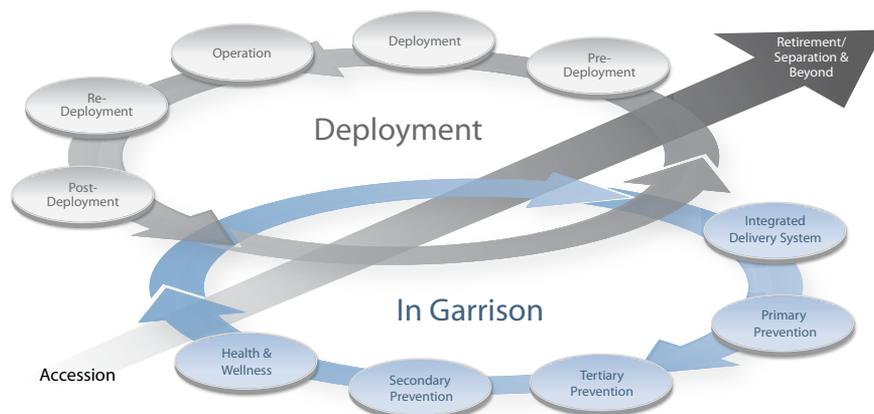
The Defense and Veterans Brain Injury Center will play a pivotal role in collecting and analyzing screening data and making recommendations for future programs and tools. In addition, a critical element for TBI surveillance is a TBI clinical database being built as a single repository for TBI case information across DoD.

Scientifically meritorious research is being funded to prevent, mitigate and treat the effects of traumatic stress and TBI on function, wellness and overall quality of life for Service members, their caregivers and families. The program being charted by the Military Health System strives to establish, fund and integrate both individual and multi-agency research efforts that will lead to improved prevention, detection, diagnosis and treatment of deployment-related psychological health and TBI.

CONCLUSION

The Military Health System is improving the effectiveness of its continuum of care through initiatives, programs and policies that focus on Service members and their families. That focus begins during accession into service and continues through completion of their obligation and beyond. Early successes are made possible through a collaborative process and series of efforts for the greater good.

DoD CONTINUUM OF CARE



DOD & VA COLLABORATION:

DoD and the VA continue to pay close attention to the health care needs of returning Service members from Operation Enduring Freedom and Operation Iraqi Freedom, which has resulted in several new initiatives and programs. Recent efforts have focused on improving health care services and benefits for Service members, veterans, military retirees and dependents. Progress has also been made in the transfer of health information on Service members from DoD to the VA to assist their transition.

Over recent years, committees and working groups composed of senior DoD and VA officials were created to identify high-priority issues and find solutions. In 2002, the VA/DoD Joint Executive Council (JEC) was established to provide executive direction for the coordination and sharing of resources. The JEC is co-chaired by the Under Secretary of Defense for Personnel and Readiness and the Deputy Secretary, Department of Veterans Affairs. The JEC's 2008-2010 strategic plan lists six goals:

- Promote accountability, commitment and performance measurement
- Improve access and the quality of health care
- Improve the seamless coordination of benefits for the transition from active duty to veteran status
- Ensure integrated information sharing

- Improve the efficiency of business operations
- Improve joint medical contingency/readiness through planning, training and exercises

The JEC publishes an annual report, which is accessible on the TRICARE Web site.

The DoD/VA Deployment Health Work Group focuses its efforts on improving force health protection during and after combat operations and other deployments. DoD and the VA share information on deployment health surveillance, assessment, follow-up medical care, health risk communication and research. To screen for health concerns, DoD conducts health assessments of Service members before deployment, within 30 days of their return and three to six months after their return. DoD has been sharing these health assessments with the VA since 2005.

In the area of post-deployment medical care, DoD provides personnel databases to the VA on an ongoing basis. Since September 2003, DoD has supplied a roster of veterans who have either deactivated back to the Reserves or the National Guard or have separated from the military. Using these lists for its outreach efforts, the VA contacts the veterans to inform them of their benefits.

In 2007, the deficiencies discovered at

the Walter Reed Army Medical Center drew the attention of President George W. Bush and senior DoD and VA leadership. In March 2007, the President's Commission on Care for America's Returning Wounded Warriors conducted a comprehensive review of medical services and made recommendations. At the same time, the Secretary of the VA set up an Interagency Task Force on Returning Global War on Terror Heroes to assess existing governmental services and recommend improvements. These two review groups and other task forces published several reports in 2007, which included more than 400 recommendations to improve DoD and VA care and benefits.

In May 2007, DoD established the Wounded, Ill and Injured Senior Oversight Committee (SOC) to address urgent issues:

- Redesigning the Disability Evaluation System
- Traumatic Brain Injury and Post-Traumatic Stress Disorder
- Case Management and Support
- Facilities
- Finance/Pay Issues

The SOC is scheduled to complete its mission in January 2009 and transfer its responsibility to the JEC.

At the Joint Staff level, an advisory panel is evaluating all the existing medical

SMOOTHING THE TRANSITION FOR SERVICE MEMBERS

By Pamela Houghtaling, FHP&R Staff Writer

programs that affect returning Service members. The panel known as the Joint Staff Wounded Warrior Integration Team was created in April 2008 by Admiral Mike Mullen, chairman of the Joint Chiefs of Staff, and consists of experts from the personnel, legal and public affairs on the Joint Staff, along with commanders with recent combat experience. The team is looking at all the programs across the military, the government and nongovernmental and nonprofit groups.

COORDINATED TRANSITION

Responding to a recommendation from the President's advisory commission, the VA has established a joint Federal Recovery Coordinator Program with DoD and the Department of Health and Human Services to improve health care services for Service members seriously injured. The goal of the program is to identify and link up public and private resources to an individual's rehabilitation needs. The program involves a lifetime commitment to qualifying patients and their families. Coordinators are currently located at the three military

hospitals that receive most of the severely wounded – Walter Reed Medical Center, Washington, DC; National Naval Medical Center, Bethesda, MD; and Brooke Army Medical Center, San Antonio, TX.

The VA has organized a Polytrauma Network of Care to provide rehabilitation for Service members suffering from polytrauma blast-related injuries. Polytrauma refers to impairments in more than one body system or organ. In FY 2005, the VA opened four Polytrauma Rehabilitation Centers – Tampa, Florida; Richmond, Virginia; Minneapolis, Minnesota; and Palo Alto, California – to provide specialized acute rehabilitation treatment. Polytrauma points of contact are located at each VA medical center.

The VA recently established a Combat Veteran Call Center to contact some 570,000 recent OEF and OIF combat veterans to make sure that they know about medical services and benefits. The call center started contacting veterans in May 2008. Combat veterans are given special access to VA health care for five years following their military discharge.

Wounded veterans are entitled to have a care manager assigned to them to ensure that they are receiving appropriate care and information about their benefits.

With improvements in the access to quality health care for Service members and the sharing of medical information and personnel records, the DoD/VA partnership continues to look for ways to ease the transition of the Service member to veteran.

 **Want More?**

JEC Annual Report

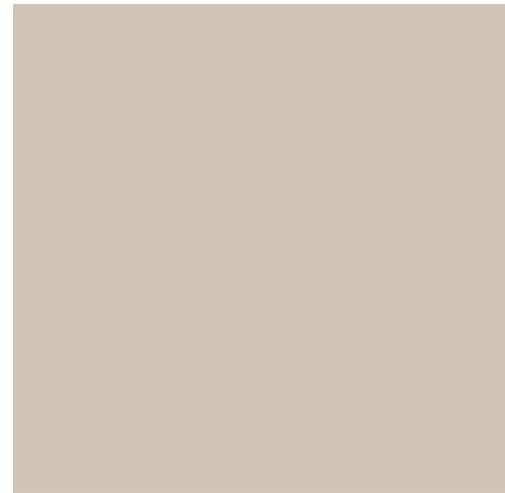
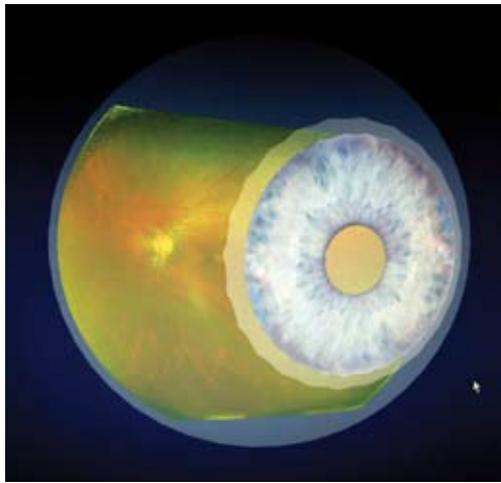
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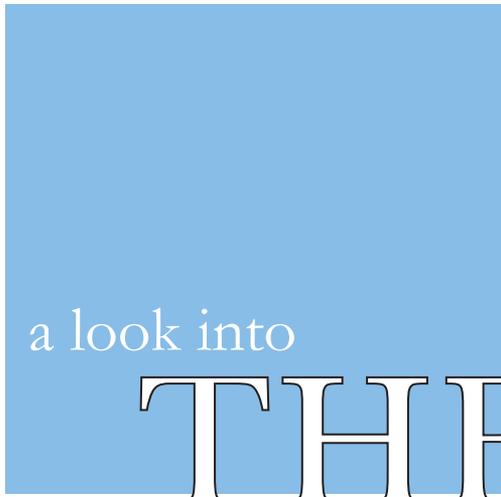


Have a story idea?

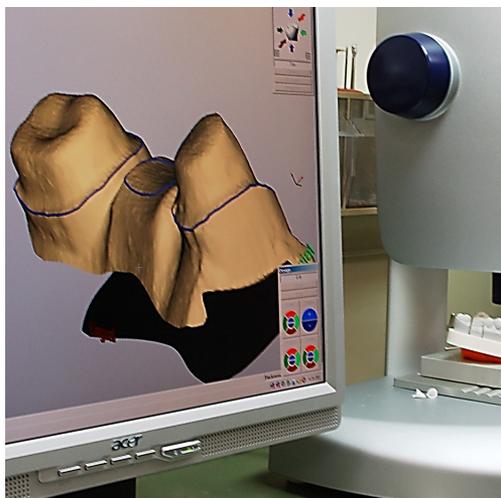
FHP&R is looking for interesting stories about health related topics.

Please submit ideas and stories to FHPWebmaster@tma.osd.mil.





THE FUTURE



FHP&R looks to medicine, science and policy to guide the future of Force Health Protection. We count on the doctors, researchers, teachers, parents and communities to help lead Service members along a road of health promotion and wellness.



