

Deployment Quarterly

Spring 2005 Vol. 4 Issue 4

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U.S. DEPARTMENT OF DEFENSE
**Deployment Health
Support Directorate**



message

Dear Readers:

In recent months, the Department of Defense has focused on the impact that stress — both physical and emotional — can have on service members during or after a deployment. We are firmly committed to helping our troops maintain their health, which is why we are implementing a new Post-Deployment Health Reassessment.

We recognize that health issues don't always manifest themselves immediately after deployment. The U.S. Army Medical Research Unit-Europe in Heidelberg, Germany, screened returning troops in Italy at reintegration and again 120 days later, and found that more service members needed help after they had been home for awhile. To better identify and treat any possible emerging deployment-related health concerns, we are expanding the current pre- and post-deployment health assessment program to now include a post-deployment health reassessment of health three to six months following a deployment. A goal of this reassessment is to proactively identify any health concerns expressed by our service members they have returned home.

The Post Deployment Health Reassessment is a way for us to reach out to those who have been deployed and ask, "How are you doing?" after they have had some time to settle into their lives. It allows health care providers the opportunity to evaluate the health of all personnel — active duty and Reserve Component members — 90 to 180 days after they return from a deployment that required completion of a post-deployment health assessment.

Service members who complete the Post-Deployment Health Reassessment will discuss with a health care provider — such as a doctor, a physician assistant, a nurse, an independent duty corpsmen or an independent duty medical technician — his or her responses on the form. As they do with post-deployment assessments, the health care provider will identify potential health concerns and provide referrals for further evaluation and treatment. Reserve Component members with identified health concerns will have the option to seek treatment in a military treatment facility, use their TRICARE benefit, or use their veteran's benefit through the Department of Veterans Affairs or Vet Centers.

Results from the Post-Deployment Health Reassessments will be entered into the individual's military health record. Additionally, results will be forwarded electronically to the Army Medical Surveillance Agency at Walter Reed Army Medical Center in Washington, D.C., for storage and inclusion in the Defense Medical Surveillance System.

The Post-Deployment Health Reassessment expands the continuum of care we offer to service members. It builds on the pre- and post-deployment assessments we introduced in 1997 and the enhancements to the post-deployment health assessment we implemented in 2003. We are committed to continually improve our health care system to maintain the health of our service members.

Sincerely,

Ellen P. Embrey
Director, Deployment Health
Support Directorate



Deployment Quarterly

The Deployment Health
Support Directorate

Volume 4 Issue 4

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LETTERS: Letters to the editor must be signed and include the writer's full name, city and state (or city and country) and mailing address. Letters should be brief and are subject to editing.

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AF Top Doc Says 100,000 Post-Deployment Screenings Have Been Conducted Since Jan.

by staff sgt. c. todd lopez
air force print news

The Air Force surgeon general spoke before Congress in March on the state of medical care for service members serving in the war on terrorism.

Air Force Surgeon General Lt. Gen. (Dr.) George Peach Taylor Jr. told members of the House Armed Services Committee subcommittee on military personnel that the Air Force has done an exceptional job throughout operations Enduring Freedom and Iraqi Freedom of providing health care to airmen and members of its sister services.

"We attribute our success to our focus on four health effects, which are providing care to casualties, ensuring a fit and healthy force, preventing illness and injury, and enhancing human performance," Taylor said.

“We now have more than 600 medics in 10 deployed locations.”

Taylor told legislators the Air Force's mobile expeditionary medical support units have been the linchpin of the ground mission to care for military casualties, and air transport teams have made great strides in reducing the time it takes to return casualties to the United States for advanced medical care.

"We now have more than 600 medics in 10 deployed locations, [including] a large theater hospital in Balad, Iraq, and two smaller hospitals in Kirkuk and Baghdad International Airport," he said. "Just as in the States, these serve as regional medical

facilities for all services. Our critical care air transport teams have made possible an astonishing turn-around time as short as 36 hours from the battleground to stateside medical care — unheard of even a decade ago."

Part of the Air Force's commitment to airmen's health is ensuring they are healthy and fit to fight before they deploy, while on deployment and upon their return home, Taylor said.

In submitted testimony, the general told legislators the Air Force's annual preventative health assessments ensure each airman is fit before he or she deploys. And when airmen arrive in theater, he said, their health is tracked by the service's preventative medicine teams.

"[They] identify, assess, control and counter the full spectrum of existing health threats and hazards, greatly enhancing our ability to prevent illness and injury," he said.

Air Force officials also ensure airmen come home healthy, with a post-deployment screening for each one, Taylor said.

"During the post-deployment process, we ensure that each returning individual has a face-to-face health assessment with a trained health care provider," he said.

Air Force officials have conducted nearly 100,000 post-deployment screenings since January 2003. Of those assessments, the surgeon general said less than 10 percent required follow-up referrals for medical or dental health concerns.

Taylor also told legislators Air Force officials are using cutting-edge research and development to find ways to improve safety for deployed airmen and to enhance their warfighting performance.

Air Force officials are working on

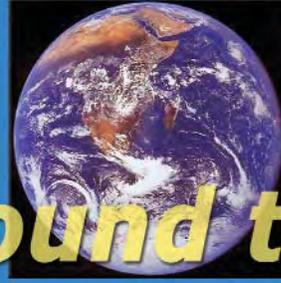


converting common tap or surface water into intravenous solutions in the field and producing medical-grade oxygen on site, so heavy oxygen cylinders do not need to be transported, surgeon general officials said.

Additionally, they are working to create vision devices that allow airmen to see to the theoretical limit of the human eye. If successful, they said, it will provide pilots and warriors with the ability to see twice as far as an adversary. ■

Editor's Note: Lt. Gen. (Dr.) George Peach Taylor Jr. is the Surgeon General of the Air Force. General Taylor serves as functional manager of the U.S. Air Force Medical Service. In this capacity, he advises the Secretary of the Air Force and the Air Force Chief of Staff, as well as the Assistant Secretary of Defense for Health Affairs on matters pertaining to the medical aspects of the air expeditionary force and the health of Air Force people.

News from Around the World



DoD Health Plan for Eligible National Guard and Reserve Members Announced

A new premium-based, health care plan is available to eligible National Guard and Reserve members activated for contingency operations on or after Sept. 11, 2001.

"This benefit compares most favorably with any health plan option available to our Reserve Components," said Dr. William Winkenwerder Jr., assistant secretary of defense for health affairs.

"We hope that individuals will

consider carefully the value of this benefit for themselves and their families as well as the commitment to our nation's defense," said Winkenwerder.

TRICARE Reserve Select is authorized under the National Defense Authorization Act for fiscal 2005 and, when purchased by a TRICARE Reserve Select eligible member, provides comprehensive health care coverage similar to TRICARE Standard and Extra for the member and his or her eligible family members.

A National Guard or Reserve member's personnel office will determine eligibility for TRS based on active service on or after Sept. 11, 2001. The service period must be for 90 consecutive days or more in support of a contingency operation. Prior to leaving active duty,

the member must enter into an agreement with his or her Reserve Component to serve in the selected Reserve for at least one additional year.

For those members who already have left active duty, they must enter into an additional service agreement no later than Oct. 28, 2005.

Members are eligible for one whole year of TRICARE Reserve Select coverage for each whole year of service commitment in the service agreement, up to a maximum of one whole year of coverage for each 90 days of continuous active duty served in support of a contingency operation. For example, members who served a 360-day qualifying active duty period in the selected Reserve are eligible for four years of TRICARE Reserve Select coverage provided the member agrees to serve at least another four years in the selected Reserve.

TRICARE Reserve Select coverage for members and covered family members will end when the service agreement ends or sooner if the member separates from the selected Reserve, voluntarily disenrolls from the TRICARE Reserve Select program or fails to pay the monthly TRICARE Reserve Select premiums.

Updated information on the TRICARE Reserve Select program — including program start date, eligibility, benefits and premiums — are posted on the TRICARE Web site at <http://www.tricare.osd.mil/trs.cfm>. ■

If the Shoe Fits...



U.S. Air Force photo by Master Sgt. Mark Bucher

TALLIL AIR BASE, Iraq -- Master Sgt. Terry Nelson, from the 388th Fighter Wing, Hill Air Force Base, Utah, fits a new pair of shoes on a young Bedouin girl during Operation Outreach conducted in the vicinity of the air base.

Scam Targets Families of Troops Killed in Action

WASHINGTON — Officials with the Department of Homeland Security are warning the public about two new Iraq-related Internet scams, including one directed at the relatives of fallen U.S. service members.

“These new Internet fraud schemes are among the worst we have ever encountered,” said Michael J. Garcia, assistant secretary of homeland security for immigration and customs enforcement. “Most troubling is the fact that some are targeting the relatives of U.S. service members killed in Iraq. We are also concerned about the fact that these criminals are impersonating [Immigration and Customs Enforcement] agents and referring to ICE’s official Web site in an effort to steal money from Americans who have lost loved ones.”

The first scheme involves e-mail sent to relatives of U.S. service members killed in Iraq. Claiming to be a volunteer working with U.S. forces, the sender states that a late friend, who also was a U.S. service member, killed in Iraq, was a very good friend of the relatives’ slain son or daughter. The sender then goes on to ask for assistance in obtaining funds kept for them by the deceased friend, promising more details when the relative responds to the e-mail. The sender then adds a link to the portion of Immigration and Customs Enforcement’s actual Web site discussing ICE operations in Iraq.

In the second scheme, a blanket e-mail is being distributed that claims to be from an Immigration and Customs Enforcement official in Iraq who is responsible for tracking down funds looted from the Iraqi Central Bank by Saddam Hussein’s son. The

sender lists ICE’s Web site address in the e-mail in an effort to seem credible. The sender then asks for confirmation of the e-mail address of the recipient, stating, “there is a

very important and confidential matter which I want us both to discuss.”

To learn more about this Internet Scam, go to <http://www.ice.gov/>. ■

Web Site Links American Public with Troops

WASHINGTON — Since launching its “America Supports You” Web site to showcase the many activities taking place across the nation in support of the troops, the Department of Defense received tremendous support as nearly a million Americans have logged on and have gotten involved.

Individual citizens, businesses, schools, veterans groups and others have visited the site at

<http://www.AmericaSupportsYou.mil> to register their activities, send a message to the troops and identify programs of support in their own communities.

Americans can join “America Supports You” by visiting the site and registering their activities, large or small, in support of the troops. The site is updated daily with news articles about groups and organizations that are showing their support to our men and women serving overseas. ■

Prepare To Fly



U.S. Navy photo by Photographer's Mate Airman Kristopher Wilson

An F-14B Tomcat, assigned to the "Swordsmen" of Fighter Squadron Three Two (VF-32), lines up on a steam-powered catapult prior to launching from the flight deck aboard the Nimitz-class aircraft carrier USS Harry S. Truman (CVN 75).

ask our experts

Q *I've been hearing a lot in the news lately about the "bird flu" and how it could create a pandemic. What is a pandemic? Am I in danger of catching the bird flu now? What is being done about this?*

A There are many different types of influenza viruses in the world and most of them are specific to a particular species of animal. Thus the typical influenza viruses that infect birds are different from the influenza viruses that infect mammals or humans. Rarely, an avian type virus can directly infect a human and cause

illness. Some 74 people in Southeast Asia — Vietnam, Thailand, and Cambodia — have recently contracted avian influenza, mainly from handling infected poultry. These cases have resulted in 49 deaths.

The types of influenza viruses that typically infect humans circulate throughout the world in seasonal patterns that are fairly well understood by scientists. We can pretty much count on an annual epidemic of influenza in the United States and the rest of the Northern hemisphere every winter. Although many people may think that "the flu" is just an annoy-



Lt. Col. (Dr.) Stephen Phillips, DO, MPH

ing illness, it actually kills about 36,000 people in the United States every year, mostly elderly people, young children, and patients with other medical problems. This is why getting your annual influenza vaccine is so important. The viruses that cause the annual epidemics of influenza will change a little bit every year. We call this "antigenic drift" and it is the reason why the influenza vaccine changes every year in order to get a good match with the currently circulating virus strain. Occasionally, the predominant circulating virus will

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vaccines, herbs & drugs

Q *I have vowed to stop smoking during my upcoming deployment. I don't know how many previous attempts I have made. I know I'm going to need help. What options are available?*

A Congratulations on your decision to quit smoking. I'm sure I don't have to tell you, trying to stop smoking is tough and trying to do so while on deployment is even tougher.

It is hard to quit because nicotine is a very addictive drug. However, quitting smoking is one of the most important things you will ever do. Medical experts say, if you are successful in your endeavor, you can add years to your life expectancy. Quitting

reduces your chance of having a heart attack, stroke or cancer.

Many things can happen to derail your desire to quit smoking such as stress of deployments, being away from friends and family, unfamiliar surroundings, and the most problematic, other smokers. Being around other people smoking can make you want to smoke. While you are trying to kick the habit, try to avoid drinking alcohol as it lowers your chance of success.

When you stop smoking, your body starts sending you messages of nicotine withdrawal. These symptoms include nervousness, headaches, irritability, restlessness,



Cmdr. Eugene de Lara, MSC, USN

irregular or rapid heartbeat, and difficulty sleeping. Fortunately, nicotine replacement therapies are medicines that help decrease or stop a smoker's withdrawal symptoms. Nicotine replacement therapies are available as patches, gums, inhalers, nasal sprays or lozenges. The U.S. Food and Drug

Administration has approved all these products as smoking cessation aids, although some require a doctor's prescription. Combined with some form of smoking cessation support or counseling, many people have successfully remained tobacco or nicotine free for years.

There are three medications approved by the FDA as non-prescription products — generally

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New Trauma Registry Captures Valuable Wartime Data

by donna miles
american forces press service

A new registry being established at Fort Sam Houston in Texas is helping track casualty information from Iraq and Afghanistan to give senior leaders the concrete information they need as they make decisions about everything from what protective gear troops will use to how to better deliver combat casualty care.

The Joint Theater Trauma Registry is ensuring that decision makers have more than anecdotal evidence to guide their decisions that directly affect troops on the ground, explained retired Army Col. L. Harrison Hassell, director of the registry system.

The registry captures details about wounds received and the medical care provided from combat support hospitals, ships and aircraft and throughout the course of their treatment, as well as the results.

This shows medical care providers what treatments were most effective as they apply those lessons learned to other patients with similar wounds, Hassell explained. "A lot of the focus is on life-saving measures at the point

of injury," he said. Medical care providers call this the most important



U.S. Air Force Photo by Tech. Sgt. Mike Buytas

U.S. Army Special Forces scan an area during a patrol in Iraq.

stage of the patient's treatment and ultimate recovery.

The data collected in the registry demonstrates the effectiveness of new medical devices and techniques, such as one-armed tourniquets, Hassell said. "You really want to know are you having an impact with a new device you have developed? Is it saving lives?" he said.

The registry also helps medical instructors better tailor their training for the theater, he said. But the data has longer-term implications as well,

Hassell said, helping planners look to the future as they conceive the next-generation combat support hospital and better methods of evacuating patients from the battlefield. In addition to improving the quality of trauma care, the registry is providing concrete data about a full range of issues of interest to military leaders and decision makers, such as the effectiveness of the new Kevlar helmet and the impact of roadside

bombs on the force.

"This is data that affects people fighting right now," Hassell said. "It's helping answer the question, 'What should we do to protect them, and if they are injured, to save them?'"

The Army's Soldier Support Center in Natick, Mass., is studying the data as it strives to improve body armor systems and the Defense Advanced Research Projects Agency is evaluating the amputation data as it works on futuristic limb regeneration concepts.

Monthly reports that summarize the data collected so far have what the military's collective appetite for more information. "It's like a feeding frenzy," Hassell said. "They all want more."

But providing more information and speeding up its delivery aren't as simple as it might seem. It's a slow, labor intensive process that involves sorting through files of hand-written notes from weary battlefield health care providers, extracting the critical details, translating them into medical codes and entering them into the database.

"It's painfully slow," Hassell acknowledged, emphasizing that until all the data is collected and up-to-date, it offers only a partial view of the big picture.

But in the meantime, the database is providing combat trauma care information never before available, and certainly not while the war was still under way. In the past, medical data from the theater was never collected, and inpatient records were retired to the National Personnel Records Center in St. Louis, Mo., as soon as each patient left the hospital.

Hassell said the emerging registry is already beginning to pay off in terms of supporting medical improvements, logistics and operational planning and more. ■



U.S. Army photo by Staff Sgt. Monica R. Garreau

An injured soldier is loaded into a 68th Medical Company (Air Ambulance) UH-60 Blackhawk helicopter for transport.

Husband and Wife Support Each Other Through Deployment



Husband and wife, Sgt. Joyce Cagnon and Master Sgt. Roland Cagnon, of Providence, R.I., are currently deployed to Iraq with the 103rd Field Artillery Brigade of the Rhode Island National Guard.

by rebecca gattoni
deployment health support directorate

For most service members they are lucky enough to receive letters, packages or the occasional phone call from home, but for one couple they have gotten to spend almost every day of their deployment together.

Both Master Sgt. Roland Cagnon and his wife, Sgt. Joyce Cagnon, were called to active duty with the Rhode Island Army National Guard in July 2004 and are currently stationed in Iraq with the 103rd Field Artillery Brigade.

“ We are doing this together; it has made us bond in a way that is unexplainable. ”

When Joyce and Roland meet in Las Vegas in July 2002, Joyce was living in Seattle, Wash., and Roland was in Rhode Island. After maintaining a long distance relationship, they decided to be together in Rhode Island and were married on July 4, 2003. When Joyce left Washington, she left behind everything, but was able to find comfort and strength in Roland. Now, she

finds herself in a similar situation after being called to active duty and deployed to Iraq, but again Roland is by her side.

“It seems ironic that I talked Joyce into joining the Rhode Island National Guard so she would not get deployed with the medical or military police units, and now we are in Iraq,” said Roland.

Joyce, now a chaplain’s assistant while on deployment, served for 16 years in the Army Reserves prior to joining the Rhode Island National Guard.

Roland has been with the Rhode Island National Guard for 30 years of service, including serving on active duty for 22 years. Currently, he is an operations non-commissioned officer-in-charge at the Armory of Mounted Commands in Providence, R.I.

“The best thing about having my spouse with me in Iraq has been sharing the experience of serving our country. Our oath was to defend and secure good old U.S.A. and this is just us doing our part,” said Roland.

“There are times I just need to visually see him to make me feel that everything is going to be all right,” said Joyce. “We are doing this together, it has made us bond in a way that is unexplainable. I feel closer to him now than I did before we were deployed.”

The Cagnon’s have received mixed reactions from their unit regarding their deployment. Some service members can’t imagine putting their wife through the vigorous training and

day-to-day tasks that are required prior to being deployed.

“There are quite a few that will not voice their opinions one way or the other. Some have said you are so lucky you are with your spouse and then you have jealous ones,” said Joyce. “The best thing for me is when I hear a boom, I know where Roland is and that he is OK.”

When we go to drop off our laundry, the locals that work there regard us as celebrities or something. We walk in and they all say ‘they are man and wife’, and when we leave everyone of them has to come out and say good-bye. It is kinda cute,” said Joyce.

Despite being deployed together, life in Iraq is not the same as it is back home in Rhode Island. “We are not allowed to share living quarters, but try to spend as much time together as possible,” said Roland. The Cagnon’s have had to remember that its mission first, and your spouse second.

“Just because he is my husband does not mean I can get away with anything like some might think. I still have to respect his rank,” said Joyce. “I miss being able to just sit down and talk with him about the day-to-day things.”

While, it is comforting for Joyce and Roland to have each other in Iraq, it has been hard on their families to have them both deployed. Joyce’s adult children have picked up additional responsibilities to help their parents during their deployment.

“One of our sons has had to take over caring for our animals and managing the bills while we are away. It has been particularly hard on him,” said Roland. “Our children

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Mind Over Matter



DoD photo by Tech. Sgt. Cherie A. Thurlby

Army Spc. Oscar Olguin climbs the rock wall at the 19th National Disabled Veterans Winter Sports Clinic at Snowmass Village, Colo. The clinic, organized by the Department of Veterans Affairs and Disabled American Veterans, is the largest annual disabled learn-to-ski clinic in the world.

Couple

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are scared and concerned for our safety, but understand we are proud to serve our country.”

The Cagnon’s have learned that unfortunately life does not stop when a loved one is deployed. For Joyce and Roland this has been particularly hard to handle.

“The hardest part of the deployment has been the family moments we have missed. We missed a son’s wedding in September, our grandson turning one in December, and we will miss the birth of our fourth grandson in February. This is what has taken a bigger toll than almost anything on us,” Joyce said.

“My children were glad though that Roland was going to be with me. It gave them some comfort knowing that we would have each other. They understand our dedication to the service and to our country,” said Joyce.

“They know we are here for their freedom and to try and make it a better place for our grandchildren and their children to be able to live without fear.”

The couple expects to be deployed until September or October 2005. ■

Vaccines, Herbs & Drugs

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referred to as over-the-counter products. These over-the-counter nicotine replacement products come in the form of gums, patches and lozenges and are made by several manufacturers under various trade names. Consult your health care provider or your pharmacist for advice and carefully read the information on the package.

These over-the-counter products are excellent options and are relatively convenient to use while deployed, regardless if your deployment is shipboard, on an air base, or in the field. All of these medications will more or less double your chances of quitting and quitting for good.

There is also a prescription-only product called Wellbutrin™, which is not a nicotine replacement therapy, but works by affecting neurotransmitters in the central nervous system. Because of its affects on the

central nervous system, you normally don’t see service members on this product while deployed.

I always recommend service members contact their unit’s health care providers to determine what might be best for your situation.

Keep in mind smoking cessation products are usually available at military treatment facilities’ pharmacies and via the TRICARE network of retail pharmacies, non-network retail pharmacies and the TRICARE Mail Order Pharmacy.

Don’t be discouraged if you start smoking again. Most relapses occur within the first three months after quitting. ■

Editor’s Note: U.S. Navy Cmdr. Eugene de Lara is the Assistant Head in the Pharmacy Department at the National Naval Medical Center in Bethesda, Md. Prior to this assignment, he was deployed to Iraq for six months.



Environmental Surveillance: Key Role In Protecting Troops' Health

by austin camacho
deployment health support directorate

One of the most important lessons learned from Operations Desert Shield and Desert Storm was the importance of knowing what potentially hazardous exposures service members might encounter. Thanks to the U.S. Army Center for Health Promotion and Preventive Medicine, the military has made great progress in environmental surveillance during the global war on terror, said Jack Heller, the director of health risk management at USACHPPM.

“When we first started doing this our main focus was on industrial materials...”

“Even though it has been a difficult combat operation, this has probably been the most successful operation for doing environmental surveillance that I’ve ever been associated with,” Heller said. “We’re trying to identify environmental exposures that can impact our forces early on, mitigate those exposures, and record what those exposures are.”

Heller said it is important to avoid the health issues that arose after the 1991 Gulf War, when questions about exposures arose that the military couldn’t answer. An extensive study of oil well fires was done after the Gulf War, but several other exposures were suspected of impacting the

health of military members. For example, insufficient information was available about the possible effects of depleted uranium or some of the vaccines used. Heller says that today the military does a much better job of recording possible exposures, and that means more than looking for acute exposures and identifying who was exposed.

“We are also cataloging and collecting data for the chronic and low level exposures that might not have an immediate consequence, but could have long-term effects,” he said.

During the 1991 Gulf War, and even in Kosovo and Bosnia, DoD was in a reactive mode about environmental exposures. If a problem was suspected in a particular place, experts went there to assess it. For Operations Enduring Freedom and Iraqi Freedom, surveillance personnel are in a proactive mode.

“In OIF and OEF we got involved early in the planning of the operation, looking at potential base camps,” Heller said.

To make that happen, planning support is key. The earlier environmental surveillance personnel know where troops are going, the earlier they can assess potential threats. Of course, their job isn’t all about advance planning. They are part of all four phases of deployment, so after the planning they participate in the pre-deployment, deployed and post-deployment phases.

The U.S. Army Center for Health Promotion and Preventive Medicine also works with all the services. They provide equipment to all the preventive medicine units that deploy.

The Army has separate preventive medicine units as well as division preventive medicine offices. The center also trains people from the Air Force Expeditionary Groups, Marine Expeditionary Forces and Navy Environmental Preventive Medicine Units.

In the last 10 years, environmental surveillance equipment has become more portable and easier to operate, but it is still very specialized. Before deployment, all preventive medicine personnel receive training in how to use the gear and how to assess the results. They also get the sampling media needed. Current equipment can’t provide real-time results, so when samples are collected they are sent to U.S. Army Center for Health Promotion and Preventive Medicine for analysis and assessment. And to make the future better than the past, archiving all that data is vital.

“Now, we look at historical contamination on site, and the potential for weapons of mass destruction on site.”

“Much of the info we needed to answer questions during the Gulf War was destroyed or left behind,” Heller said. “We must ensure that all the data we get is archived.”

Recorded data includes information on the conditions at a particular base camp and data on the field water. This kind of information is needed after the conflict or sometimes during it if another unit is moving into the same area. The

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Surveillance

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importance of knowing what threats may exist in an area troops are moving to is clearer today than it was in the past.

“When we started doing this, our main focus was on industrial materials,” Heller said. “Now, we look at historical contamination on site, and the potential for weapons

“As new data comes in we continuously revise the assessment of the data we have.”

of mass destruction on site.”

One thing they did before Operation Iraqi Freedom was to prepare for potential oil well fires. Because Iraqi forces ignited more than 700 oil wells in Kuwait during the Gulf War, there was concern about the possibility that the nearly 1,400 oil wells in Iraq would be ignited. Before any service members were deployed, Army, Navy and Air Force units were trained on how to assess a mass ignition of oil well fires, and equipment was pre-positioned in the theater to be used if a large number of oil well fires were ignited.

The experts at the U.S. Army

Center for Health Promotion and Preventive Medicine provide a number of products to the field, including technical guides such as “Chemical Exposure Guidelines for Deployed Military Personnel,” the “Deployment Environmental Surveillance Sampling Guide,” and a volume on “Entomological Operations Risk Management.”

In addition, U.S. Army Center for Health Promotion and Preventive Medicine performed about 40 different intelligence reports on the battlefield for the different base camps where U.S. forces were deployed, including pre-deployment base camps in Kuwait. Other plans and reports were produced for occupational and environmental health surveillance. The needed information has become easier to get because preventive medicine people are working with the intelligence community. Environmental surveillance experts now use worldwide intelligence data to define industrial hazards and threats.

“As new data comes in we continuously revise the assessment of

the data we have,” Heller said. “And, as we get occupational and environmental health data, we use it to better revise the assessments we do on our base camps and other places our service members are.”

All the useful environmental surveillance data is available to commanders through secure defense Web sites. This allows them to know as much as possible about the location prior to sending their service members to a particular area. The next step is to refine the system tracking troop locations.

“To know who was exposed we have to know where our people are,” Heller said.

After the 1991 Gulf War, the Defense Department didn’t have data on environmental exposures or who was exposed. Now, an effort is being made to create a roster of who was potentially exposed. This information could matter to a person’s future health, whether they were near a small oil well fire or suffered heavy metal exposure from processed water. Exposure data will be combined with personnel information from the Defense Manpower Data Center, resulting in a database to allow DoD to identify service members who were nearby when a particular exposure occurred. Heller said that the services have all become much better at adding the information needed to the Deployment Occupational and Environmental Health Data Repository.

“We archive everything we collect over there — environmental sample data, [situation reports], incident reports on exposures, even dining hall inspections,” said Heller.

The interim form of this database currently in place is searchable so that commanders can prepare for movement into an area that may present exposure risks. By offering this information and helping commanders to prepare, Heller hopes to reduce or someday eliminate casualties caused by environmental exposures. ■



Courtesy photo

Jack Heller, the director of health risk management at the U.S. Army Center for Health Promotion and Preventive Medicine says since Operations Desert Shield and Desert Storm, the military has made great progress in environmental surveillance. Heller, pictured here, was part of the team which did a study on the impact of the oil well fires on service members’ health following the Gulf War.

Speedy Care, Better Gear Helps Troops Survive Injuries

“ At the point of injury, a soldier’s life is either saved or lost by the initial action taken by a combat medic or someone who has been trained in some basic first-aid skills. ”

by sgt. 1st class doug sample, usa
american forces press service

Service members fighting the war on terror are surviving what normally would be fatal injuries due to improved protective gear, better-trained combat medics and quicker



Members of the 86th Combat Support Hospital transport a wounded service member to a nearby field hospital.

evacuation procedures, according to a doctor who has been to the front line three times.

Army Lt. Col. (Dr.) George Peoples served two tours of duty in Iraq and one in Afghanistan as part of a forward surgical team.

He now is chief of surgical oncology and on the general-surgery staff at Walter Reed Army Medical Center in Washington, D.C., where he has treated wounded service members from Operation Iraqi Freedom and Operation Enduring Freedom.

One reason many critically injured service members are coming home alive is because of the speed of the care provided on the battlefield, Peoples said.

In Iraq, Peoples was one of 20 or so doctors, nurses and other health care professionals who made up the 224th



U.S. Air Force photo by Staff Sgt. Edward D. Holzapfel
Ramstein Air Base, Germany — Air Force medical personnel and flight crew members carry an injured soldier to a bus so he can be taken to nearby Landstuhl Regional Medical Center for care.

Forward Surgical Team.

It takes the teams about an hour to set up an entire field hospital, he said. However, he added, using medical equipment from their backpacks, they can initiate surgical care within 15 minutes.

He said in combat, the forward surgical team’s role is to perform “basic life- and limb-preserving procedures, and to get patients to the next level of care.”

The mobile unit followed closely behind the 3rd Infantry Division during its initial war offensive in Iraq, and was within “meters of where some of the fighting was taken place,” he said.

Peoples said having forward surgical teams able to set up as many as two portable operating rooms within minutes so “near to the point

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Speedy Care

— Continued from Page 11 of injury” presented better opportunity to perform lifesaving procedures.

“There, he continued, “you basically have a ground ambulance ... that can bring casualties of the battlefield directly to your door in matter of minutes.”

And the military’s ability to rapidly evacuate critically injured soldiers from the battlefield to the next level of

““ *The quicker you can get persons back, I think the more efficiently they can be cared for.* ””

care at facilities such as the Landstuhl Regional Medical Center in Germany and Walter Reed, Peoples said, is another reason lives are being saved.

He said the Air Force handles the “movement piece” exceptionally well and helped reduce the evacuation time to four days from point of injury to Walter Reed, down from the previous 14 to 15 days.

“The quicker you can get persons back, I think the more efficiently they can be cared for, perhaps better cared for,” Peoples said. “And ultimately I think that impacts their long-term

health.”

Peoples also pointed out the role combat medics and troops on the ground play in saving lives.

“At the point of injury, a soldier’s life is either saved or lost by the initial action taken by a combat medic or someone who has been trained in some basic first-aid skills,” he explained.

Peoples said procedures such as placing a tourniquet, stopping bleeding or stabilizing injuries become very critical on how well patients are “going to do in the long run.”

He pointed out that body armor and up-armored vehicles are another reason many lives are saved. “People are surviving these devastating injuries because they are not developing life-threatening injuries to the chest or abdomen,” he said.

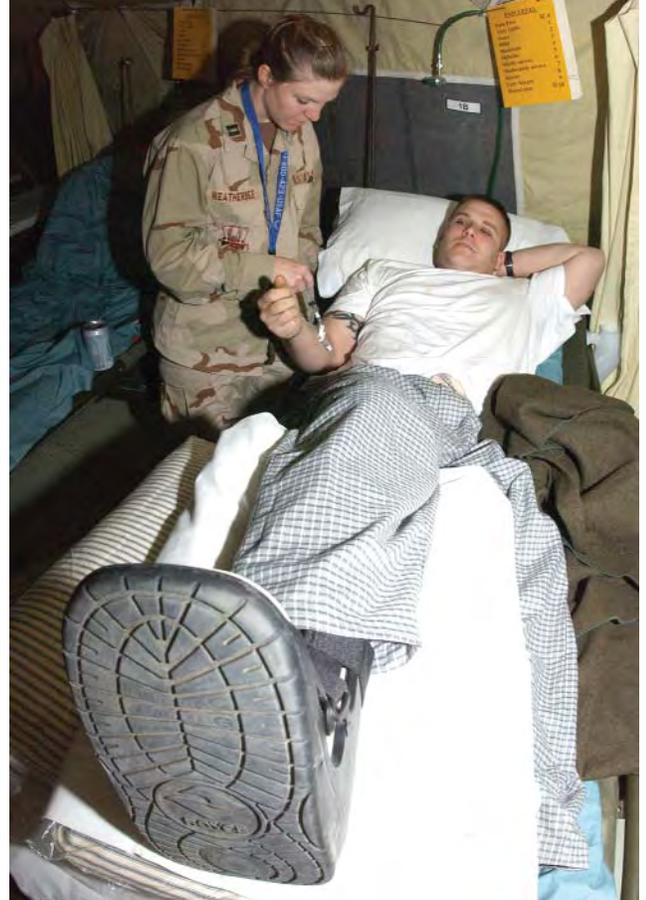
Peoples noted that body armor “protects the core of the soldier in their chest and abdomen” where “a lot of the injuries would have been mortal in previous combat.”

He said the military is working to revamp body armor so that protective plating will cover even more body parts, and that ballistic eyewear has helped cut down the number of eye injuries. In addition, more military units now travel in armor-clad vehicles.

But even with these protective measures,

Left: An air crewman aboard an U.S. Navy MH-60S Seahawk helicopter, assigned to Helicopter Combat Support Squadron Five (HC-5), makes final preparations for take-off as Chief Hospital Corpsman Patrick Nardulli, rear, monitors his patients.

U.S. Navy photo by Journalist 1st Class Joshua Smith



U.S. Air Force photo by Tech. Sgt. Marc Barnes
Air Force Capt. Tamra Weatherbee gives medication to Army Pfc. Matt Baugh at the contingency aeromedical staging facility at Balad Air Base, Iraq.

Peoples said medical facilities are seeing “much more devastating extremity injuries,” with damage to bones, tendons, ligaments, blood vessels and nerves.

“It’s presented a real challenge for us surgically, but even more from a rehab standpoint,” he said.

Peoples noted that more is being done to improve care for service members needing rehabilitation services. “New facilities are being created, new resources are being put toward their care. This problem is being faced head on,” he said, “because we know that we now have a generation of soldiers who have a lifetime ahead of them of having to deal with the ravages of this war.” ■



Quick Testing Approved For Leishmania Parasite

by karen fleming-michael
fort detrick, md., standard staff writer

One of the Army's specialized labs got a firmer leash on diagnosing "leish" after it gained approval for a quicker test for the parasite.

This past winter the College of American Pathologists approved a new diagnostic test that detects parasite DNA to diagnose Leishmania. Developed by the Walter Reed Army Institute of Research, the test is based on polymerase chain reaction to give definitive results in one hour instead of the weeks a diagnosis can sometimes take.

"We can basically project this service anyplace that can reach us by FedEx. We get the package with the sample, we prepare the mixture, we run the assay and we can e-mail the response back to the physician," said Col. Alan Magill, an expert on leishmaniasis and science director at WRAIR. "It allows us to project this capability very far forward, albeit with some logistic constraints."

After more than 800 service members from Operation Iraqi Freedom were sent back to the States for treatment for weeping sores that just would not heal — a sure sign of leishmaniasis — the WRAIR Leishmania Diagnostic Lab was operating at a capacity it had never before witnessed.

"We literally had hundreds ... of culture flasks floating around that we were trying to keep track of and reading every day — along with hundreds of smears because for every

patient who had leish, there were two that didn't," Magill said. "It was an enormous burden on the laboratory. If you're doing one of these a month, it's no big deal, but if you're getting 80 new specimens a week with all the smears and culture bottles involved, it's kind of over the deck."

During the onslaught of leishmaniasis cases, either the WRAIR lab or the Armed Forces Institute of Pathology looked at every leish sample coming in from Iraq to provide diagnosis. While AFIP experts looked for the parasite in tissue samples and smears, cultures and Polymerase Chain Reaction, or PCR, samples were sent to the WRAIR lab that's directed by Lt. Col. Pete Weina, a key player in combating the leish outbreak when he was deployed in Iraq in 2003.

"Our personnel looked at the slide under a microscope to see if there are parasites on the smear, or they watched the culture for two, three, four or five days until they started to see some movement and see live parasites growing," Magill said.

The WRAIR lab could also run the unapproved PCR assay that researcher Lt. Col. Glenn Wortmann developed in the late 1990s, but physicians couldn't make treatment decisions based on the results because the test hadn't been validated.

"Legally, physicians aren't supposed to use an unapproved assay [for diagnosis]," Magill said.

Now that the test is CAP approved,



Photo by Phil Collins

Lisa Jones, a sand fly laboratory technician, works at the Walter Reed Army Institute of Research's Leishmania Diagnostic Lab.

the lab and its customers are benefiting from its strengths. Because the approved PCR can handle 16 samples at one time and gives results in one hour, having the approved diagnostic speeds up the lab's workload and get results faster to the field. A second test, expected to be completed soon, will also tell if the species is *Leishmania Major* — the type of leish acquired in Iraq — so physicians can make informed decisions about treatment.

"If you rely on cell culture, it takes two to three weeks to determine what species it is, so you don't save any [treatment] time," said Lt. Col. Russ Coleman, chief of the WRAIR's Department of Entomology, where the Leishmania PCR assay is performed.

When treatment options for various forms of leish can include up to 20 days of an intravenous drug, waiting weeks to find out what kind of leish a person has is just too long, said Magill, also an infectious disease physician at the Walter Reed Army Medical Center in Washington, D.C.

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2nd Generation JMEWS To Go Live This Summer

by Harry Sarles
Deployment Health Support Directorate

The Joint Medical Workstation is one of the latest technological advances employed during Operations Iraqi Freedom and Enduring Freedom. It allows commanders and medical planners to monitor service members' physical well being and medical treatment facilities' capabilities.

“With this Joint Medical Workstation, we are now able to provide a real-time medical snapshot of what is going on in a specific theater of operation down to the unit or joint task force level.”

The system has been operational since January 2003 said Air Force Lt. Col. (Dr.) Mark F. Gentilman, director of medical readiness information management at the TRICARE Management Activity, speaking at the TRICARE Conference in January in Washington, D.C. It came about due to a Secretary of Defense mandate to provide electronic medical surveillance for operational deployments.

“With this Joint Medical Workstation, we are now able to provide a real-time medical snapshot of what is going on in a specific theater of operation down to the unit or joint task force level,” said Anthony DeNicola, Deployment Health Support Directorate's program manager, Information, Technology and Security. “This information can then be used to locate, coordinate and provide the best care available to the service members on the ground in a deployment situation.”

The second function of the Joint Medical Workstation is medical surveillance. Each treatment facility using this system submits a daily record of its patient encounters. Data analysis tools then use the data

derived from the patient records and disease and non-battle injury reports to determine trends and alert for spikes in specific areas. If the surveillance tool alerts for a spike, the command surgeon can investigate further by looking into individual patient records for particular symptoms.

The workstation is the medical surveillance component of the Theater Medical Information Program. It also provides command and control support for operational deployments.

According to Gentilman, the workstation will soon be upgraded. The Joint Medical Workstation II will provide a

medical interface to the Global Combat Support System that allows the integration of medical support with the Department of Defense command and control systems.

The upgraded workstation is expected to go online this summer. It will provide a Theater Medical Information Program interface to the Defense Department's Clinical Data

Repository. The system also allows symptom-based medical surveillance that is seen as an improvement over the current diagnosis-based medical surveillance.

The enhanced capabilities of the upgraded system include earlier detection of biological incidents, integration with other Defense Department information systems, and logistics and patient movement visibility. It should become a key tool for medical decision makers at all levels, said Gentilman.

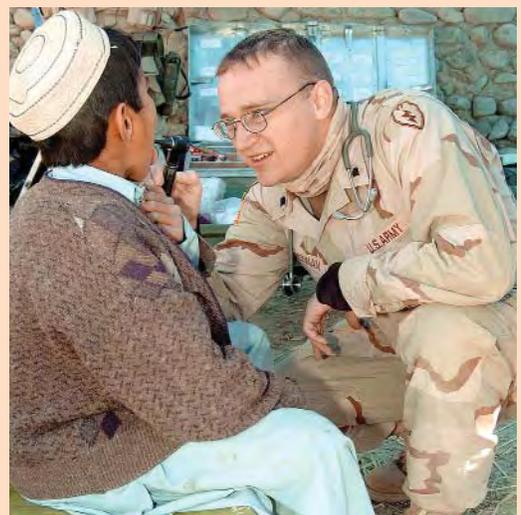
One new capability of the upgraded system will be the medical watch board. The medical watch board gives commanders and medical planners a real-time status of critical medical systems. Medical professionals down to the brigade surgeon level can build their own watch boards and use them to monitor medical systems and make key decisions.

When the Joint Medical Workstation II is in place it will provide operational command and control personnel with access to threat and surveillance data and the capability to receive, process, display and analyze situation information. ■

Say Ahhhh...

Spc. Scott Brennan, a medic with the 725th Main Support Battalion, examines an Afghan boy's throat during a cooperative medical assistance mission in Sadak, Afghanistan.

U.S. Army photo by Staff Sgt. Bradley Rhen



That's A Mouthful



U.S. Air Force photo by Master Sgt. Val Gempis

YOKOTA AIR BASE, Japan -- Airman First Class Eric Parks, inspects the line angle of a casts of teeth at the clinic here March 31. He is a dental laboratory technician with the 374th Dental Squadron.

Ask Our Experts

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change drastically, or “shift” in its antigenic composition, producing a virus for which almost no one in the world has any immunity. When this happens, a world-wide epidemic, called a pandemic, can occur. When the influenza virus “shifted” in 1918, over 20 million people world wide died from influenza. What is concerning scientists today is the possibility that the avian influenza strain that is causing problems in Southeast Asia could mutate or mix with human strains to create a pandemic strain of influenza.

While there is no evidence to date that the “bird flu” virus has mutated to the point where it can easily be transmitted from human to human, the United States Government, as well as the World Health Organization, or WHO, and countries around the world are preparing for

that possibility. Aggressive research to develop a vaccine for this type of influenza is underway. Careful surveillance and study of the current situation in Southeast Asia is also being done by the Centers for Disease Control and Prevention as well as the U.S. military. Stockpiles of antiviral drugs to combat a potential pandemic are being ordered.

While the potential for creating an influenza pandemic makes the current avian influenza outbreak in Southeast Asia a concern for scientists and doctors around the world, you are not currently at risk — unless you travel to Southeast Asia and handle chickens. You should nevertheless pay attention to information provided by the CDC and other public health officials, and get your annual influenza vaccine when it becomes available in the fall. ■

Get The Facts First Before Shipping Items Home From Iraq

If you are about to return to the United States from a deployment to Iraq and are contemplating bringing home souvenirs or trinkets, there are several things you should realize before doing so. Checking with the proper military officials and complying with all federal regulations and requirements may prevent future headaches.

First, you should consult with the Military Provost Marshal's Office. Military personnel are prohibited from bringing war souvenirs such as enemy weapons, machine guns, weapon magazines, ammunition — live or spent rounds — pistols and anti-personnel mines. Shipping weapons or war trophies as personal property is punishable under the Uniformed Code of Military Justice.

After consulting with the Provost Marshal's Office, you will have to adhere to civilian and Federal regulations and requirements. For instance, the Office of Foreign Assets Control establishes the regulations against embargoed countries. Although the embargo against Iraq is still in affect, there are some items that you are allowed to bring back, such as blankets, key chains, t-shirts, handcraft and jewelry. More information is available on the Office of Foreign Assets Control Web site at <http://www.treas.gov/offices/enforcement/ofac/>.

If you are unsure, don't try to ship your items. For more information, contact officials at the post office, customs office or legal office. ■

'MOST' Missions Improving Patient Care

by master sgt. kimberly spencer
59th medical wing public affairs

Threats faced by military medics today have increased the need for ocular surgery in the field, requiring greater adaptation by surgical teams.

The 59th Medical Wing's Mobile Ophthalmic Surgical Teams, known as MOST, are part of this evolution.

"The need for eye surgery teams to respond rapidly to natural disasters, terrorist attacks and in support of the war fighter continued to multiply each day," said Air Force Maj. (Dr.) Eric Dudenhoefer, assistant chief of the Cornea and Refractive Surgery Flight at

Wilford Hall Medical Center at Lackland Air Force Base in Texas. Dudenhoefer is the team chief for the Wilford Hall MOST program.

"Today's eye surgery teams have seen a rise of 20 to 25 percent in eye injuries on the battlefield," said Dudenhoefer. "This is due to a higher use of projectile-type weapons, which fragment and create extensive wounds to vulnerable areas of the war fighter."

He also sighted terrorist attacks on civilian populations as one of the leading causes requiring mobile teams for augmentation of local surgical eye teams.

"The Tokyo sarin release produced eye symptoms and signs in nearly all of

the 641 casualties seen at a near by hospital," said Dudenhoefer. "Bombings such as the Oklahoma City federal building or World Trade Center produced dozens of patients with acute need for eye surgery."

The Centers for Disease Control and Prevention reported that of the 790 injured patients seen within the first 48 hours following the September 11 attacks, 26 percent had ocular injuries. Eye injuries were second only to inhalation injuries, added the doctor.

"Humanitarian and disaster response deployments are also the most realistic and effective way for ophthalmic surgeons in training to prepare for

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Parasite

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"That's been one of the problems with Leishmania therapeutics: We've been unable to get the species diagnosis to the clinician in a meaningful timeframe, so we were stuck with a one-size-fits-all therapy, which is not good," he said. "With PCR we're basically able to say, 'Here's what it is,' and it allows a clinician to make optimal treatment decisions."

Gaining approval for the test was a six-month endeavor, said Lisa Hochberg, who spearheaded getting the test validated from April 2004 until the evaluators visited in October. Among other tasks, she and her team had to run the test over and over to determine how many parasites the test could detect and ensure it didn't give a positive for anything else but leish or a negative for any type of leish. All the while the lab was still regularly processing samples coming into the lab from overseas.

"It's very lab and paperwork intensive," Hochberg said.

In keeping with CAP standards, the approved test can only be used in the WRAIR lab. But researchers at

the institute are working toward a Food and Drug Administration-approved PCR test that can be used in the field military medical labs. Working with Cepheid Corporation, a manufacturer of PCR technology, researchers have created a test that uses the same chemicals in the approved PCR test but dries them down into little beads so they're more deployable.

"You get a tube that ... already has the beads in it. You add your sample, close it shut and put it into a [PCR]," Magill said. "It's a vastly easier set up."

Researchers already met with the FDA to ensure they're on the right track with the dried PCR test.

"The initial results [of the dried PCR] suggest the dried chemistry is about tenfold better in terms of limit of detection than the current wet chemistry," said Maj. David Shoemaker, a microbiologist who has an extensive background with developing PCR tests and spent a year at the FDA reviewing applications from companies that develop PCR tests.

The dried PCR test, Shoemaker said, is also strengthened because of

work done at the U.S. Army Medical Research Institute of Infectious Diseases. An internal positive control test that Dr. David Norwood developed will let the tester know if there's anything in the sample that might inhibit the PCR from working correctly.

"PCR is very susceptible to a variety of chemicals in terms of its ability to work," Shoemaker said. "For example, if you put whole blood in there, it contains compounds ... that interfere with a reaction, so you may get a negative result in your reaction when you actually had the organism present. The internal positive control will tell you if you have PCR inhibition."

If all goes as planned, researchers will submit their application for FDA review of the dried PCR test late this year.

Though so far this year there have been fewer numbers of infections — "twos and threes as opposed to the twenties to forties per week last year," Magill said— having the new test and the dried PCR will prevent the lab from ever again being inundated with too many samples and too little time. ■

Determined To Stand On His Own Two Feet

by austin camacho
deployment health support directorate

Like many others, Michael Cain served four years in the Army and hopes to get on with his life. At 23, he has a wife and son to take care of and has his sights set on higher education. And, like so many of his peers, he's determined to stand on his own two feet, even if one of them is artificial.

Michael Cain lost his right leg in the service of his country, but he says that's not going to stop him from attaining any of his goals.

"I lost a leg, had other setbacks, but I'm alive," Cain said. "I have my wife. I have my son. I have my life."

Sgt. Michael Cain deployed from Fort Hood, Texas, to Operation Iraqi Freedom with the 299th Engineers, part of the 4th Infantry Division. His unit handled vital re-supply missions, driving needed equipment into Tikrit,

“I go to the ward all the time to talk to people who are new amputees. I let them know that it gets better.”

Iraq. He was not just a truck driver, but was the non-commissioned officer-in-charge of the convoy that headed out on the morning of Aug. 10, 2003. He says they had not gotten far when his vehicle rolled over a mine or an improvised explosive device. The explosion welded the cab of his truck shut, trapping him inside the vehicle.

"My legs were cauterized," he says. "They had to bring out the contact truck with a welder to cut the door off to get me out of the vehicle."

Cain says he would have died if the heat from the blast had not cauterized all the blood vessels.

Cain was evacuated first to Baghdad, then flown to Landstuhl Regional Medical Center in Germany for treatment, and finally to Walter Reed Army Medical Center in Washington, D.C. He had to be told about these movements after the fact because he had lapsed into a coma.

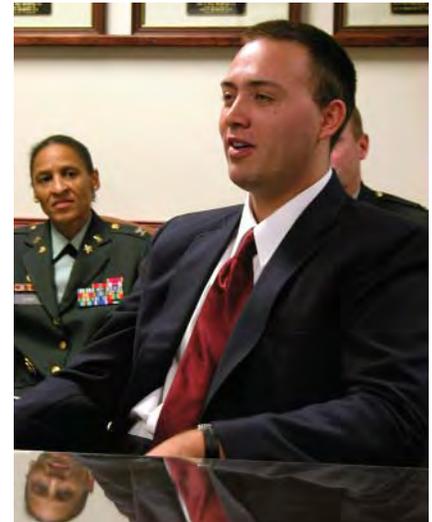
Three days after being caught in the explosion, he awoke to learn that he had endured a long series of injuries, including a broken jaw and an amputation. In the beginning, people had to tell him what had happened in Iraq. Originally he had no memory of the explosions. His memories began to surface at first in the form of nightmares that made sleeping almost impossible for a while.

"In the dreams I have I can see every little detail," he said. "I can see every sliver of glass come out of that windshield toward my face. I can see the tendons in my leg. A piece of glass went into the back of my head, and I can see that. I can see the glass sticking out of the back of my skull. Blood is pouring down the back of my head."

Cain explained that the process of coming to terms with the loss of a limb was, for him, a series of ups and downs. He describes his emotional roller coaster this way:

"The first down part — finding out what happened. The up part — I'm still alive. The down — [the] surgeries. I hated them. Then an up — I got my prosthetic leg. I got to stand up and walk around.

"Then down again — extra bone growth on my leg, so I had to come



— Courtesy photo

Former Army Sgt. Michael Cain, who was lost a leg while deployed to Iraq, talks about working with the Disabled Soldier Support System at Walter Reed Army Medical Center in Washington, D.C.

off my leg and get back into the wheelchair."

Cain was hospitalized for three months, working through his rehabilitation at Walter Reed. He admits that it was a difficult ordeal, but he was able to maintain a positive attitude thanks to his wife, parents and two sisters who were staying at a nearby Ronald McDonald House. At the end of the rehab process, he was ready and willing to get on with his life.

"I'm glad it happened to me and not anybody else," Cain said. "I think I took it very well. I'm alive. That's all I care about."

Today he lives in Gladstone, N.D., with his wife, Leslie, and son, Desmond. Cain still travels to the Washington, D.C., area frequently to talk about the programs in place to help seriously wounded soldiers and to serve as a disabled veterans' advocate to federal employment groups. He also visits with friends who are still at Walter Reed Army

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Own Two Feet

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Medical Center, and spends time with those who are dealing with the same loss he has endured.

"I go to the ward all the time to talk to people who are new amputees," Cain said. "I let them know that it gets better."

Cain's next goal is to attend college and get the training to become a physical therapist. He says that his experience combined with his military training make

him well equipped for the job.

"I know what to do, and I know how to do it," Cain said. "I know how to motivate people."

Cain says that well-meaning physical therapists have told him that they understood what he was going through, but he never really believed it. He feels that with the proper training, he can be a therapist to whom patients will be able to relate.

"My goal is to go out and help other amputees," Cain said. "I'll say I know what you're going through." ■

MOST Missions

— Continued from Page 17

actual wartime deployments, explained Dudenhoefer.

In fact, the MOST concept was initially born from humanitarian mission eye surgery done in 1991 by an Air Force ophthalmologist from Wilford Hall, Maj. (Dr.) Jane Ward, now a retired colonel.

When Ward went to northern Mexico on leave status with a non-governmental missionary group, she recognized the operational training value of her experience. She subsequently led a WHMC team to another Mexican site in 1992.

Based on the success of these missions, Honduras later requested U.S. Southern Command humanitarian eye missions. After a series of successful eye surgery teams visited there, the MOST concept was born.

During these early humanitarian missions members learned that a large, inflexible response would often be delayed by transportation limitations.

Responding rapidly requires efficient

use of airlift, which means paying attention to the weight and amount of gear. All the gear and supplies needed to perform surgery in austere locations can now be hand-carried by MOST members. However, teams depend on the host nation or other deployed units for security, power, transportation, quarters and food.

The humanitarian teams generally consist of four to 12 individuals. Teams typically operate in a host country hospital. A large open area is needed for patient waiting and screening, while smaller rooms are used for preoperative evaluations and surgeries.

Real-world contingency or natural disaster response team missions are typically made up of two-person teams. The equipment needed is backpack portable and teams can be ready to deploy within two hours. These teams hand-carry supplies for ten restorative eye surgeries and 100 outpatient visits.

Missions requiring a team to be in place for a longer duration can be supplemented by pallets of gear and supplies.

"There has been a vast improvement in treatment capability," said Dudenhoefer.

"More advanced surgeries are now possible, and require less healing time. For many penetrating eye injuries, treatment within twelve hours to stabilize the eye is needed to achieve the highest probability of useful vision."

Innovations in the equipment needed to perform advanced surgeries make improvements possible said the doctor.

"We now have portable ophthalmic-operating microscopes, as well as portable diode lasers," explained Dudenhoefer. "Other advancements have been made in the equipment needed for diagnostics, enhancing the clinical and surgical abilities of the MOST teams."

Realities such as the war in Iraq, as well as the recent tsunami, clearly show a need for ophthalmologists to continue honing the mission-ready skills needed to respond quickly and rapidly anywhere in the world. ■

More Light, Please

Camp Arifjan, Kuwait — Navy Lt. Cmdr. (Dr.) Morteza Farr, MC, left, and Cmdr. (Dr.) Greg Wolff, MC, examine an U.S. Army soldier's broken wrist as Lt. Jason Gillespie, adjusts the lights in the operating room at the U.S. military hospital at Camp Arifjan in Kuwait. The hospital is staffed by Naval Reserve sailors assigned to the Expeditionary Medical Facility from Dallas, Texas, and has 380 people in eight clinics throughout Kuwait.

U.S. Navy photo by Chief Journalist Kevin Elliott



Air Force Association

1501 Lee Highway
Arlington, VA 22209-1198
Phone: (800) 727 - 3337
<http://www.afa.org>

American Legion

1608 K St., NW
Washington, DC 20006
Phone: (202) 861
<http://www.leg>

639 - 3520

Street

2425
Arlington, V
Phone: (800)
<http://www.ausa>

Department of Veterans

810 Vermont Ave., NW
Washington, DC 20400
Phone: (202)
<http://www>

Disabled American Veterans

807 Maine St., SW
Washington, DC 20024
Phone: (202) 554 - 3501
<http://www.d>

Fleet Reserve

Alexandria, VA 22

Marine Corps Ass
715 Broadway St.

Phone: (866

**National Association for
Uniformed Services**

5535 Hempstead Way
Springfield, VA 22151
Phone: (800) 842 - 3451
<http://www.naus.org>

**National Committee for Employer
Support of the Guard and Reserve**

1555 Wilson Blvd., Suite 200
Arlington, VA 22209-2405
Phone: (800) 336 - 4590
<http://www.esgr.org>

Guard Association of

Paralyzed Veterans of America
801 Eighteenth St., NW
Washington, DC 20006-3517
Phone: (800) 424 - 8200
<http://www.pva.org>

Reserve Officers Association
1 Constitution Ave., NE
Washington, DC 20002
Phone: (800) 809 - 9448
<http://www.roa.org>

Reserve Enlisted Association
1 Constitution Ave., NE
Washington, DC 20002
Phone: (202) 646 - 7758
<http://www.reaus.org>

Veterans of Foreign Wars
200 Maryland Ave., NE
Washington, DC 20002
Phone: (202) 543 - 2239
<http://www.vfw.org>

Vietnam Veterans of America
8605 Cameron Street, Suite 400
Silver Spring, MD 20910-3710
Phone: (301) 585 - 4000
<http://www.vva.org>

Phone Resources

Direct Helpline for Service Members, Veterans and Families
(800) 497 - 6261

Deployment Health Clinical Care Center
(800) 769 - 9699
or from Europe
00 - 800 - 8666 - 8666

TRICARE Active Duty Programs
(active duty and family members)
(888) DOD - CARE
or (888) 363 - 2273

TRICARE Mail Order Pharmacy Express Scripts
(866) 363 - 8667

TRICARE Dental Program (TDP) United Concordia
(800) 866 - 8499

TRICARE Pharmacy Program
(877) DOD - MEDS
or (877) 363 - 6337

TRICARE For Life
(888) DOD - LIFE
or (888) 363 - 5433

TRICARE Retiree Dental Plan Delta Dental
(888) 838 - 8737

Defense Enrollment Eligibility Reporting Systems (DEERS)
(800) 538 - 9552

TRICARE Online
(866) DOD - EWEB
or (866) 363 - 3932

Health Insurance Portability and Accountability Act (HIPAA)
(888) DOD - HIPA
or (888) 363 - 4472

Department of Veterans Affairs
(800) 827 - 1000

VA Gulf War Registry
(800) 749 - 8387

VA Benefits and Services
(877) 222 - VETS
or (877) 222 - 8387

Internet Resources

Department of Defense
<http://www.defenselink.mil>

DeploymentLINK
<http://deploymentlink.osd.mil>

GulfLINK
<http://www.gulflink.osd.mil>

MedSearch
<http://www.gulflink.osd.mil/medsearch>

DeployMed
<http://deploymentlink.osd.mil/deploymed/>

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

Hooah4Health
<http://www.hooah4health.com/>

TRICARE
<http://www.tricare.osd.mil/>

Department of Veterans Affairs
<http://www.va.gov>