

# MEDCOM NOW

**MEDCOM NOW**—a newsletter highlighting the challenges, successes and personnel of Army Medicine

## Inside this issue:

Warrior Transition Units' Mission Second Only to Combat

Military Acute Concussion Evaluation (MACE) Offers Quick Diagnosis After Head Injury

Wounded Fort Hood Soldiers Receive Laptops from Dell Computers

Warrior Transition Unit Vans Ready to Roll in Europe

Mirror Shows Promise for Amputee Care

Fort Sam Houston Begins Construction on Trauma Research Center

The Way Ahead

*Office of the Army Surgeon General and Army Medical Command*

## Warrior Transition Units' Mission Second Only to Combat

*Story & photo courtesy Army News Service*

SAN ANTONIO, Texas - Getting Soldiers healed from physical, psychological or emotional wounds is an Army mission of highest priority, second only to combat, a senior official said during the Warrior Transition Leadership and Training Conference Jan.13-18.

With the creation of 35 Warrior Transition Units (WTUs) worldwide since mid-2007, more than 8,900 Soldiers, or Warriors in Transition, are currently assigned and have but one primary responsibility - to heal.

"There has to be a place for these Soldiers to convalesce and heal, and possibly one day return to duty," said Brig. Gen. Michael S. Tucker, Assistant Surgeon General for Warrior Care and Transition. He also heads up the Army Medical Action Plan, which called for establishing the WTUs.

### AMAP: Triad of Care

The WTUs offer extensive help to wounded, ill or injured Soldiers who will take six months or longer to heal. The program includes assistance to their Families. The WTUs replaced units such as medical hold companies or rear detachments that previously functioned as temporary holding units for Soldiers needing to convalesce.

"Even if the war stopped tomorrow, we'll still have a need to provide these Warriors the care they need," said 1st Sgt. Mick Tener, Bravo Company, Warrior Transition Battalion, Fort Riley, Kan.

Leaders of the Army Medical Action Plan (AMAP) said Warriors in Transition receive medical care and leadership support from a team of specialists personally assigned to each Soldier. The team consists of a physician, nurse case manager, and military squad leader who are all dedicated and are known as a "triad of care."

### Beyond Healing

"It's more than just healing the physical wound itself. It's the healing of the body, mind and spirit - the holistic approach to care," Tucker said.

Beyond healing, WTUs also provide a myriad of administrative and Family support services such as help with pay problems, housing, transportation, education opportunities and training, recreation and fitness. Collectively, the team helps to facilitate all care, support and service the Soldier needs for a successful transition back to military duty, or into the Department of Veterans Affairs health and benefits systems.



Brig. Gen. Michael S. Tucker, Assistant Surgeon General for Warrior Care and Transition discusses warrior care during a Pentagon Channel interview with Sgt. Kimberly Williams in San Antonio, Texas Jan. 15.

## Warrior Transition Units' Mission Second Only to Combat (continued)

### Dedicated Leadership

Staff Sgt. Michael Thornton is assigned to the Warrior Transition Battalion at Fort Sam Houston, Texas. While serving with the 4th Infantry Division near Baghdad, he sustained burns over 33 percent of his body in September, 2006, when the vehicle he was traveling in was hit by a roadside bomb. He was transferred to the Medical Hold Company here to convalesce. Later in 2007, the company he was assigned to became a WTU.

"Things flow more efficiently now. It seems more organized. It's good to have dedicated leadership who handle just our issues," said Thornton. "In the past, some wounded Soldiers were also serving as squad leaders at the Medical Hold Company. They had appointments too, so it's better to have dedicated leadership.

"This is the best place I've seen in the Army. We've got great docs and so many people who care about us. I've seen issues like a pay problem I had that was resolved with their help the same day. They go out of their way to take care of you and they're good at it," said Thornton.

### Red Tape Cut

"The 'suck it up and drive on' days are done," said Capt. David Payne, Commander for the WTU at Fort Lee, Va.

"We're really blowing through the red tape and getting the Warrior the care they need," said 1st Sgt. J.D. Callahan, Alpha Company, Warrior Transition Battalion, Fort Gordon, Ga.

"The squad leaders take a daily look at their Warriors in Transition. If a Warrior is consistently making it to all appointments and suddenly misses a few in a row, we know it's an indicator to look deeper into what's going on with this Warrior," said Maj. Juan Rosas, executive officer, Warrior Transition Battalion here.

Lt. Col. George Bryan commands the Warrior Transition Battalion at Fort Benning, Ga., with 240 Warriors in Transition assigned. He said the Army is not abandoning its wounded Soldiers, adding that Active, Guard and Reserve Soldiers are all finding help at the WTUs.

### Different Type of Unit

The WTUs are unlike most Army companies in that they have no motor pool, supply or arms rooms. These units allow for wounded Soldiers to focus on healing and reconnecting with their Families, said Payne. "It takes time," he said.

Nine community-based health care organizations have also been established primarily for reserve-component Soldier care, for those who are from areas geographically away from Army posts.

"The Global War on Terror is producing casualties, as we're all certainly aware of. We have an unprecedented survivability rate of 92 percent, compared to 20 percent during World War II," Tucker said, adding that nearly all medically non-deployable Soldiers could be considered for assignment to a WTU.

For Warrior Care information, call the Army Wounded Soldiers and Family Hotline anytime at: 1-800-984-8523. Information is also available on the Web at: <http://www.armymedicine.army.mil/amap/amap.html>.



## Military Acute Concussion Evaluation (MACE) Offers Quick Diagnosis After Head Injury

The careful examination of a Soldier's history, injury characteristics and a directed physical exam are the cornerstones for determining the appropriate care for any Soldier who may have a possible brain injury. The Office of the Surgeon General (OTSG) Health Policy & Services Proponency Office for Rehabilitation & Reintegration facilitates the implementation of the Military Acute Concussion Evaluation (MACE) for the Army.

"The MACE was developed in August 2006, as a result of successful research studies from sports injury literature," says Kathy Helmick, Deputy Director of Clinical and Educational Affairs, Defense and Veterans Brain Injury Center.

The MACE is used extensively by medics in-theater and at Landstuhl Regional Medical Center, Germany, as a quick triage tool to confirm the diagnosis of a suspected concussion (also referred to as a mild traumatic brain injury) and to assess Soldiers' current neurocognitive status. It contains two components vital for making an accurate diagnosis of

concussion: the patient's history of injury *and* an alteration of consciousness (ranging from dazed or confused, to amnesia, to a loss of consciousness). It also contains standardized tests of memory, concentration, and recall to assess for any residual cognitive abnormalities of the brain injury.

"Providers use the validated tool in the MACE, called the Standardized Assessment of Concussion, or SAC, to determine whether or not there are any residual cognitive effects, as well as the level of care needed, to help Soldiers within 72 hours of the injury," Helmick said.

A policy memo released by OTSG in June 2007 called for all Soldiers who were exposed to a blast in theater to be evaluated for a possible concussion or mild traumatic brain injury (mTBI). The MACE tool is used for this evaluation and combines an appropriate history, assessment of symptoms, and the SAC. Per the policy, any Soldier who reports being dazed, confused, "saw stars" or loses consciousness, even momentarily, as a result of an explosion/blast, fall, motor vehicle accident, or other similar event involving an abrupt head movement such as a direct blow to the head or other head injury, should be evaluated by administering the MACE within the first 72 hours after the event. Although the test sounds complicated, administering the MACE exam takes just five minutes to complete.

"The success of the MACE is in its simplicity and mobility," says Army Neurologist Col. Robert Labutta, OTSG Clinical Consultant, TBI neurosurgeon. "The examination can be given on the battlefield for a fast and accurate assessment of an injured Soldier's clinical status. The MACE standardizes and improves the diagnosis of TBI, guides cognitive testing, and helps to assure the Soldier gets appropriate treatment."

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## Wounded Fort Hood Soldiers Receive Laptops from Dell Computers

*Story & photo courtesy American Forces Press Service*

Wounded Service Members at Carl R. Darnall Army Medical Center, Fort Hood, Texas, recently received help staying connected with loved ones during their recovery.

Operation Homelink, in collaboration with the Dell computer corporation, presented 30 refurbished laptops to wounded Soldiers participating in the Army Wounded Warrior Program (AW2). The AW2 program serves the most severely wounded, injured or ill Soldiers and their Families by helping them with their transition back into civilian or military life.

Operation Homelink is a supporter of America Supports You, a Defense Department program connecting citizens and corporations with military personnel and their Families serving at home and abroad.

With this latest laptop donation, Operation Homelink has provided more than 100 laptops to wounded Service Members. To date, the organization has connected more than 2,500 military Families through its donations of laptop or desktop computers.



A Dell computer corporation representative helps to present 30 wounded Soldiers recovering at Carl R. Darnall Medical Center at Fort Hood, Texas, with laptop computers. The donations were made through Operation Homelink, a group that refurbishes donated computers and donates them to recovering Service Members or Families of deployed troops.

## Warrior Transition Unit Vans Ready to Roll in Europe

Story & photo courtesy USAG, Kaiserslautern, Public Affairs

Fourteen Mercedes-Benz vans, outfitted to accommodate wheelchairs, are being distributed this month to Warrior Transition Units (WTUs) throughout Europe.

WTUs are the centerpiece of the new Army Medical Action Plan that supports and provides assistance to injured Soldiers as they prepare to return to duty or to transition to civilian life. In 2007, the Europe Regional Medical Command established WTUs in Germany, Italy and Belgium, where the vehicles will be stationed.

"Mid-January - that's our goal to have all the vans out (to the WTUs)," said Tim Wood, the U.S. Army Garrison Kaiserslautern logistics director.

Each vehicle can accommodate four wheelchairs, with enough room for up to six patients and a medical escort.

Cost for each van is \$30,000, with an additional \$9,500 for installing a wheelchair lift, railing, flooring and securing system, said Gerhard Heil,

motor pool manager, who was instrumental in procuring these vehicles for the Installation Management Command Europe.

The outlay represents a total savings of \$120,000 as the Army is leasing and not buying these vehicles, said Heil, adding that the lease runs for a year, with an extension option.

Leasing, explained Wood, offers time to ensure the vehicles meet unit transportation needs as well as to study possibly buying more vehicles in the future.

The Landstuhl Regional Medical Center logistics branch is contacting each WTU to schedule a time for operators to pick up the vans, which are located at the garrison's motor pool on Daenner Kaserne.

Originally, these were courier vans already fitted with features "ideally suited for transporting patients," said Mr. Wood.

The drivers will receive training that focuses mainly on the wheelchair mount and vehicle maintenance. Additions include a high-top roof and aisle lighting - making it easier for medical escorts to check on patients, and an automatic doorstep and movement alarm when the side door is opened.

Another major original feature is "stand heat," which allows for continued warmth even when the vehicle is not running. Windows are also tinted as an added force protection measure.



Tim Wood, U.S. Army Garrison Kaiserslautern logistics director, tests the automatic doorstep and movement alarm when a side door opens to one of the 14 vans going to Warrior Transition Units in Europe.

## Mirror Therapy Shows Promise for Amputee Care

Story & photo courtesy American Forces Press Service

When Sgt. Nicholas Paupore sees the reflection of his left leg in a mirror he feels whole again. His right leg, which was destroyed when an explosively formed penetrator ripped through his Humvee just south of Kirkuk, Iraq, suddenly reappears before his eyes, reflecting the left leg that remains.

Paupore, 32, admitted he was skeptical when Navy Cmdr. (Dr.) Jack Tsao, associated professor of neurology, Uniformed Services University of the Health Sciences, Bethesda, Md., suggested that he participate in a clinical trial underway at Walter Reed Army Medical Center, Washington, DC, to study phantom limb pain. Wounded in Iraq in 2006, Paupore said the pain felt like electric shocks or knives stabbing into his missing leg. "It felt like someone ... was putting an electrode on the back of my ankle," he said. He previously had tried several different painkillers, including morphine, but none gave him relief.

Prior to the start of his study, Tsao had revisited literature he'd first seen while in graduate school. Vilayanur Ramachandran, a neuroscientist at the University of California San Diego, had come up with mirror therapy to treat phantom limb pain in upper extremities. Ramachandran used mirrors so amputees could "see" and "move" their missing limbs to relieve the discomfort. Funding restrictions and lack of a steady stream of amputees had prevented Ramachandran from testing his research further through clinical trials.

## Mirror Shows Promise for Amputee Care (Continued)

Story & photo courtesy American Forces Press Service

Tsao, recruited 18 combat-wounded amputees and randomly assigned them into three groups. One group received mirror therapy, a second, received the same therapy, but with a mirror covered by a sheet so it didn't reflect the limb, and the last, simply visualized seeing the missing limb in a mirror.

Paupore began the trial in the second group, with the covered mirror. After four weeks he felt little change. However, he experienced an immediate improvement when Tsao switched him to the group using the uncovered mirror which allowed him to see his missing leg. The technique he used was to place a six-foot mirror lengthwise between his left leg and the residual stump on his right side, with the mirror reflecting his intact leg. He would move his leg and watch the movement in the mirror while he imagined his missing leg making the movements.

"The very first time I tried it, the stump started firing off right away. It got a little uncomfortable," Paupore said.

Paupore and the other participants in the trial used the mirror therapy technique 15 minutes a day, five days a week for four weeks. "Pain levels seemed to come down after the first week and kept diminishing," Tsao said. Some of the patients using the mirror experienced relief, while others reported that their phantom pain disappeared altogether.

Tsao continued administering the therapy for an additional four to eight weeks, and saw more success in patients who previously had phantom pain. "Many were able to get off their pain medicine altogether or bring their pain levels down to a point where it was manageable with low dosages of drugs," he said.

"The mirror works for most people who have tried it," Tsao said. "It doesn't work fully for everyone. Some people are left with some residual pain, but it is better than when they started. For the most part, if you talk to the amputees here, they have actually been able to get off the medications, some sooner than others." Those who used the covered mirror or visualization had far less success, Tsao reported. Some said their phantom pain actually worsened until they began therapy with an actual mirror.

More than a year after completing his mirror therapy, Paupore said he still experiences occasional phantom pain, but "only once in a great while." The pain is far less severe than before the mirror therapy, and he is off painkillers altogether. "It tricks your brain into thinking your leg is still there, so it's not misfiring," he said. "I don't know how it works, but it works." Paupore said he encourages other amputees suffering from phantom pain to give mirror therapy a try.

"Mirror therapy does not work for everyone. It's not a cure-all for all kinds of phantom pain, but it's definitely a way to improve therapy," Tsao said. The results of the clinical trial were published in fall 2007 in the *New England Journal of Medicine*. Based on the promise it's shown, Tsao hopes to get approval for two additional studies.

One will test mirror therapy to treat phantom pain of Soldiers with missing arms. He hopes to conduct the trial at Walter Reed and at the Center for the Intrepid Military Rehabilitation Facility, Brooke Army Medical Center, San Antonio, Texas. A second trial, functional magnetic resonance imaging, will attempt to figure out precisely why mirror therapy works.

Tsao called the Defense Department's advances in treating amputees "nothing short of phenomenal" and said he's proud to be playing a part.

"I think the most gratifying part of this is that we are actually able to help in the rehabilitation process for the amputees here," he said. "I go home everyday knowing people are going to be getting better. It makes me feel great."



Navy Cmdr. (Dr.) Jack Tsao, encouraged Army Sgt. Nicholas Paupore, an outpatient at Walter Reed Army Medical Center, in Washington, D.C., to try mirror therapy to treat phantom pain in his amputated right leg.



## Office of the Surgeon General and Army Medical Command

### Coming Events

**Presidents Day**  
February 18, 2008

**2008 Annual HIMSS  
Conference & Exhibition**  
February 25-28, 2008

**AUSA Winter Symposium  
and Exhibition**  
February 27-29, 2008

**5th Annual World Health  
Care Congress**  
April 21-23, 2008

**Annual Military Suicide  
Prevention Conference**  
April 21-24, 2008

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## Fort Sam Houston Begins Construction on Trauma Research Center

*Story & photo courtesy Fort Sam Houston Public Affairs*

Construction of a \$92 million center for all Defense Department combat casualty care and trauma research missions began with a groundbreaking ceremony Jan. 11, at Fort Sam Houston, Texas.

The 150,000-square-foot Joint Center of Excellence for Battlefield Health and Trauma Research marks the first construction Project at Fort Sam Houston directed by the Base Realignment and Closure (BRAC) legislation.

"This is not just one new building we're building here; this represents a major commitment and acknowledgement of the importance and the impact that trauma research has on all patients," said Maj. Gen. George Weightman, Commander of U.S. Army Medical Research and Materiel Command.

Military leaders from the Army, Navy and Air Force joined community leaders at the ceremony. The new facility, slated for completion in September 2009, signifies a "new era in military medical research," Weightman said.

The research center will enable research and development experts, scattered throughout the nation, to centralize efforts, which will improve efficiency, reduce duplication and enhance the collaboration between them, the general said.

The center will be collocated with the Institute of Surgical Research (ISR), which falls under Weightman's command, and located next to Brooke Army Medical Center. The ISR also will benefit from BRAC with a 5,000-square-foot renovation.

In addition, the research center adds 230 people to the 440 already working at the institute, which totals "670 people dedicated to improving the quality of life of our wounded Warriors," Weightman said. "Locating this facility here with the ISR at Fort Sam Houston is the absolute logical choice."

The focus of the ISR and the future focus of the new joint center will be on the delivery of immediate care for Warriors who suffer life-threatening injuries on the battlefield. The combined research efforts of the ISR and the Joint Center of Excellence for Battlefield Health and Trauma Research will benefit not only military members, but civilians as well.

### The Way Ahead

Army Medicine plays a critically important role in the new covenant with the Army Family. The essence of our professionalism and ethos is embodied in our Warrior Medics. Compassionate and innovative, they are an inspiration to us all. We will emulate their values, their uncompromising commitment to high standards and their devotion to duty. Our Soldiers and Families deserve no less than our best. You are key to our Army remaining ...Army Strong!

### Lieutenant General Eric. B. Schoomaker

Commander, US Army Medical Command,  
The Surgeon General



Army Cpl. Christopher Velazquez, a wounded Warrior recovering at Brooke Army Medical Center, at Fort Sam Houston, Texas, is interviewed Jan. 11, 2008, after the groundbreaking ceremony for the Joint Center of Excellence for Battlefield Health and Trauma Research.