Medical Readiness

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Fit, Nourished, & Resilient
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   U.S. Army Medical Speciali
   st Corp Anniversary

May
   Men’s Health Month
   May 6-12
   National Nurse’s Week
   May 13-19
   Women’s Health Week

June
   June 2-9
   Warrior Games
   June 3
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   Corp Anniversary
   June 14
   243rd Army Birthday
   June 30
   U.S. Army Medical Veteri
   nary Corp Anniversary
   June (TBD)
   MEDCOM Commander’s Forum

Cover photo: U.S. Army Sgt. 1st Class James Shields, assigned to the Madigan Army Medical Center-Joint Base Lewis-McChord, crosses the finish line at the cycling event during the Army Trials at Fort Bliss, Texas, March 4, 2018. (U.S. Army photo by Spc. Joseph Friend) (Photo has been modified with sharpening enhancements)
As our Nation and our military face potential threats from adversaries across the globe, medical readiness of the Force remains my number one priority for Army Medicine (AMEDD). We must be ready to support our Army and the joint force in any environment; ready to adapt and apply our full spectrum of AMEDD capabilities from injury to recovery; ready to identify and apply innovative technologies; and ready to strengthen the physical and psychological well-being of our Soldiers, Soldiers for Life and their Families.

One example of our effort to increase readiness and one that brings care closer to our patients is virtual health. The use of virtual health capabilities includes remotely monitoring patient vitals providing virtual consultations, and could help medics save limbs and lives on the battlefield. Virtual health revolutionizes access to medical care within garrison facilities, at patient’s homes or at the point of injury.

While the U.S. Army currently exceeds Department of Defense medical readiness standards, there is always room for improvement. Some of the Army’s success can be attributed to the Medical Readiness Transformation (MRT) effort which began in 2016. This initiative continues to serve as a strategic lever in improving Army medical readiness. A key piece of the MRT involved the launch of four new portals designed to improve medical readiness transparency for Soldiers, Commanders and Healthcare providers. The Commander Portal, Senior Commander Portal, Healthcare Portal, and Administrative (Admin) Portal – all part of the Medical Readiness Portal (MRP) – provide a new venue for communication between providers and commanders. Furthermore, the integrated MRP consolidates other applications into each respective portal to allow the user a single platform from which to access these applications. For example, the Healthcare Portal now hosts the Deployment and Physical Health Assessments, Separation History and Health Examination (SHPE), e-profile and Medical Readiness Assessment Tool (MRAT) applications. The MRT brought commanders more responsibility for unit and Soldier readiness in an effort to decrease their non-deployable population and therefore increase the overall readiness throughout the Army.

Additional initiatives Army Medicine spearheaded to improve medical readiness of the Force include but are not limited to: increasing quality of care and patient safety, improving access to care for readiness related services, expanding embedded behavioral health care, reducing the use of opioids by Soldiers, implementing the Go First Class dental program and operationalizing the tenets of the Performance Triad (Sleep, Activity and Nutrition), while remaining focused on the importance of expanding the capabilities in combat casualty care and medical evacuation.

Army Medicine is also building collaborative partnerships with the other military services, agencies and civilian medical facilities to provide a globally-integrated military medical team. These partnerships hope to provide reliable, relevant and responsive healthcare that optimizes readiness, health and resiliency for the Total Army.

Army Medicine is a driving force behind the innovations and technologies that allow us to adapt to future challenges that may arise at home or abroad. We will continue to provide the full spectrum of healthcare from prevention, to acute care (on and off the battlefield), rehabilitative care and chronic care, while continuing to meet or exceed national quality of care standards in garrison environments.

Army Medicine remains committed to improving readiness, enhancing the healthcare delivered to our beneficiaries, transforming healthcare to support the Army and Joint Force in future conflicts and continuing to take care of our Soldiers, Civilians and their Families.
There has never been a more important time in the history of Army Medicine to restart a communication tool like the Mercury. The Mercury is one way to increase conversation and transparency about Army Medicine and our mission.

Currently, Army Medicine, along with our sister services, is working toward compliance with the 2017 National Defense Authorization Act (NDAA). The Commanding General/Army Surgeon General and I want to assure you that we are advocating for us all throughout the pending changes.

It is too soon to determine how implementation will effect Army Medicine but we remain committed to providing quality healthcare to all Soldiers, Sailors, Airmen, and Marines at home and abroad.

One of the positive changes from the 2017 NDAA has been the renewed focus on the deployable medical assets and troops within our operating units. Army Medicine personnel assigned to the fighting force are postured to support Army commands, service component commands, direct reporting units, and joint force commands with health services across the range of military operations.

To continue being relevant, we need to maintain our focus on synchronizing out capabilities to support the Army; revisiting our basic Soldier skills, renewing our interest in military customs and courtesies, and becoming an overall part of our fighting force.

For many years, we kept our eyes on the brick and mortar treatment facilities and lost sight of our basic mission, to provide healthcare to our Operational Forces. Army Medicine needs to be prepared for all possible threats, while ensuring our support to contingency plans, improving partner nation interoperability, developing a cadre of operationally proficient technical experts, and by organizing trained teams with advanced tools and techniques.

Now is the time to look at yourself and your unit. Have you done the preparation and hard work to be promoted to the next rank, not just in your MOS, but compared to Soldiers in our FORSCOM units? We must hold ourselves to a higher standard and never stop striving to be better.

We need to be Soldiers and leaders first and that comes from education, training, and mentorship.

With all the changes we will face in the coming year, we must focus on supporting readiness by generating a medically ready fighting force and by providing responsive medical capabilities. Together, we will become a more relevant and effective organization.

One Team, One Purpose...Conserving the fighting strength since 1775!
Two hundred and forty three years ago, the United States Army was established to defend our Nation. From the Revolutionary War to the current operations taking place around the world, our Soldiers remain Army Strong with a deep commitment to our core values and beliefs.

Each year, the Army hosts birthday runs around the world celebrating Army birthday week. Last year Army Surgeon General Lt. Gen. Nadja Y. West led Medical Command Soldiers on a three-mile Army birthday run from Joint Base Myer-Henderson Hall, Virginia.

Check with your local installation for Army birthday events happening June 10-16, 2018.

The MEDCOM Commander's Forum provides the Surgeon General the opportunity to facilitate an informative dialogue among Army Medicine senior commanders on readiness, current and future priorities, training and leader development.

The MEDCOM Commander's Forum will take place in June 2018, at Joint Base San Antonio - Fort Sam Houston. Exact dates to be determined.
MEDICAL READINESS

7th MSC Emphasizes Medical Readiness
by Lt. Col. Jefferson Wolfe

Medical readiness is essential to Army Reserve units’ ability to deploy and conduct their missions.

“Readiness is number one priority of the Army today, and medical readiness is the biggest feeder for overall readiness,” said Command Sgt. Maj. Raymond Brown, senior enlisted leader of the Army Reserve’s 7th Mission Support Command.

The Periodic Health Assessment and its annual medical and dental examination are the keys, he said.

Each individual is responsible for medical readiness, and it’s the first line leader’s job to ensure their Soldiers accomplish it, he added.

“I look at it as preventative maintenance checks and services,” Brown said. “You’d never take a vehicle into combat if you haven’t done a preventative maintenance check on it. You want to have the ability to be successful in combat, and that’s just a basic medical check.”

The primary method for the Army Reserve Soldiers to stay ready is to make individual appointments, as needed, with a military health care provider between battle assemblies, he said.

Soldiers receive a four-hour block of pay for each appointment they attend, to compensate for the appointment, travel time and time away from work.

However, in some cases, the 7th MSC works with one of its subordinate units to put together a medical readiness event to support annual PHAs.

The Medical Support Unit – Europe has hosted medical readiness events this year at the Army Wellness Center Bavaria in Vilseck and the Kleber Clinic in Kaiserslautern during battle assembly weekends, said Maj. Jonathan Etienne, the 7th MSC Office of the Surgeon operations officer.

Using the active component facilities allows the Army Reserve health care providers from the MSU-E to put together a full range of health care efforts.

“All echelons are focused on readiness to make sure that our Soldiers are ready to deploy and fight and win our wars,” said Maj. James Wilson, the medical readiness coordinator for the MSU-E. “If they’re not medically or dentally ready, they’re not ready.”

The large events give the MSU-E a chance to train together, he said. Many of the unit members work daily in civilian health care capacities, but many do not.

“It’s an opportunity to keep our skills fresh,” Wilson said.

For Sgt. James Smith, with the 7th MSC’s 1177th Movement Control Team, the MSU-E PHA process only took about an hour, after which he went back to his unit for the rest of the battle assembly.

“I got immunizations, vision test, hearing test and I got to see a provider, just basic medical stuff,” he said.
The United States Army Medical Service Corps (MSC) is an important national resource with a long and distinguished history. Many thousands of officers have proudly served in its ranks, selflessly supporting the nation's defense missions in peace and war throughout the world. With varied academic backgrounds and disciplines, these officers have been widely recognized and highly regarded leaders in their respective fields. They represent the growth in medical science and military medical operations and administration over two centuries.

The story of the MSC is evolutionary. Precursors such as Revolutionary War apothecaries and officers of the Civil War Ambulance Corps evolved into the World War I Sanitary Corps which was established on June 30, 1917, as a temporary part of the Medical Department based on authority provided by an Act of Congress. This corps, which rapidly expanded to nearly 3,000 officers during the War, enabled the relief of physicians from a variety of administrative, technical and scientific duties. The Sanitary Corps was demobilized following the war.

During the inter-war years, it became clear that the Army needed a permanent medical ancillary organization. This led to the establishment of the Medical Administrative Corps (MAC) on June 4, 1920. Growth in WW II was spectacular. The MAC increased from less than 100 officers in 1939 to over 22,000 by 1945. These officers freed physicians for patient care responsibilities by occupying an expanded variety of positions. These positions included replacement of the second physician in maneuver battalions.

A third precursor, the Pharmacy Corps, was established as a Regular Army branch on July 12, 1943. Finally on August 4, 1947, the Sanitary, Administrative and Pharmacy Corps were replaced by the Medical Service Corps consisting of four sections: Pharmacy, Supply and Administration, Medical Allied Sciences, Sanitary Engineering, and Optometry.

MSC Medical Battalion commanders in Korea remained in command as those units performed their combat missions upon the outbreak of hostilities in 1950. MSC aviators were assigned to the first helicopter evacuation detachments in Korea, units that presaged the revolutionary role of the helicopter ambulance. These MSC officers and their crews wrote a glorious chapter in Vietnam with the receipt of every award of valor including the Medal of Honor.

To provide a diverse, competent, and multidisciplinary team of professionals who strengthen the Military Health System through responsive and reliable clinical, scientific, and administrative services.
**I want to be a general.**

By Lesley Atkinson

"I want to be a general," was the immediate reply offered by basic officer training course candidate Stacey Freeman when instructors asked her why she joined the Army nearly 20 years ago.

"That's how I started my career," Freeman recalled. "I knew what I wanted and marched confidently forward to make it happen."

Now wearing the rank of lieutenant colonel and serving as the deputy commander for Health Readiness at Kenner Army Health Clinic, it's fairly evident that Freeman hasn't lost her moxie for a monumental military career. Here's the type of story that needs to be told as the nation observes Women's History Month.

The summation of childhood factors that shaped Freeman's character include immigrating to America from Colchester, England, with her single mother and residing in low-income rental trailer parks in the nation's heartland. She decided back in high school that the military was going to be her career of choice after a thought-provoking conversation with her guidance counselor.

"My mom was working long hours at jobs that paid very little money," Freeman said. "I knew it was my responsibility to make the best of what I had, including school where good grades offered the best ticket to a more desirable future."

Both the Army and Air Force accepted her applications for ROTC scholarships. She chose the Army's "full-ride" offer because it was the best option for her financial situation. She attended Tuskegee University in Alabama where she majored in nursing.

The next chapter of Freeman's career path opened at Fort Jackson, South Carolina, where the opportunity to work with health professionals in the operating room opened a new artery of ambition. Her eventual application to the Uniformed Services University of the Health Sciences – the nation's federal health professions academy – was accepted and 2 years later she was handed a master's degree as a perioperative clinical nurse specialist.

"Of course," Freeman noted, "my first thought at that point was joining the staff of a big surgical team at a major military hospital and propelling my career forward. However, the Army had other plans."

She had been requested by name to fill a position at Fort Polk, Louisiana, a somewhat remote base outside of Vernon Parish that was settling into its upgraded responsibility as the Joint Readiness Training Center for soon-to-deploy military troops.

"That is where I learned it's not about the location, it's all about the job," she said. "From that point on, I have never said no to an assignment. What I have learned is that success can be achieved even if the job doesn't measure up to your initial expectations. Those are the places where I typically gained the most experience."

Other windows of opportunity opened as a result of Freeman's work ethic. She said she learned early on that excuses like "I'm not trained to do that" or "it's not part of my job description" are cop-outs closely akin to laziness.

"At Fort Bliss [Texas], I contacted the professional journals for operating room nurses and volunteered to write and review articles," she said. "Writing and reading are something I've enjoyed since a very young age, so why not put that to use in my profession?"

The same attitude – along with a desire to make herself the go-to subject matter expert of her profession through continuous learning – led to other unorthodox decisions and discoveries.

"In the OR at Fort Bliss," she said, "I would scrub in (pass instruments and assist the surgeons) even though it was not part of my regular duties at that time. With staff shortages, I knew it was helpful, and I knew my counterparts were watching me. Later, they would mention how great it was seeing me fill in and help out. It clearly indicated to me that if you're willing to roll up your sleeves and do what subordinates do, they're going to have a greater respect for you."

A key element of advancement, Freeman also observed, is fully understanding what makes things work so individuals don't evolve into the dreaded, ineffective boss who's oblivious to what's going on in the trenches.

"People can become so preoccupied with looking ahead that they neglect where they are now," she said. "It's another argument for always doing the job to the best of your ability. That's when people know you have the right mindset for movement to the next higher-level position that comes available. Being passionate is what makes you marketable and competitive against other people."

During the Fort Bliss assignment, Freeman also upped her management chops by completing a Master's in Business Administration at Webster University in 2015 while simultaneously serving as the troop commander of over 1,200 Soldiers at William Beaumont Army Medical Center in El Paso, Texas.

The next move to the deputy commander position at Fort Lee, Virginia placed her in charge of more than 100 nurses, five troop medical clinics – three here, one at A.P. Hill and another at Fort Pickett – the Army Wellness Center, and Education, Training and Operations Readiness at Kenner. Once again proving her point about not resting on one's laurels, she dove into a doctoral program for Business Administration in Healthcare Management at Walden University and is projected to graduate this year.

By now, it should come as no surprise that additional opportunity is knocking. Freeman recently learned that she was selected for a command billet and a seat in the Army's Senior Service College. The notification of selection for the Clinic Commander position in Wiesbaden, Germany, came from Lt. Gen. Nadja Y. West, the Army Surgeon General, herself.

"Without a doubt, I have been given every opportunity a person could dream of over the course of a military career, and I am deeply grateful," Freeman said. "I know it took a combination of factors to get me here, and I’m not really sure what makes me click like I do. I guess I just get that vision and refuse to let it go. Some people only talk about what they are going to do ... I actually take action and do it."
Since the U.S. Army Health Clinic–Vicenza started offering Virtual Health appointments about one year ago, more than 600 patients have been treated by a medical provider in Landstuhl, Germany, without the hassles of the commute.

The time patients have saved amounts to thousands of hours, keeping Soldiers in the mission and family members close to home and their support systems.

Virtual Health uses advanced telecommunication technologies to provide healthcare when long distances separate the care team from the patient. These appointments are created from normal referrals from a Military Treatment Facility health care provider when a patient is referred to a specialist at another MTF.

The provider refers the patient, then the patient gets an email with date and time of their appointment. When the patient arrives for their Virtual Health appointment at the clinic, a specially trained staff member, like a medic or nurse, performs all typical pre-appointment activities, like taking vital signs, measuring height and weight and more. The nurse also explains what the patient can expect during the appointment, and the nurse will set up a mobile cart with medical instruments, video monitor, microphone and speakers.

Then a specialty provider sitting at Landstuhl Regional Medical Center will appear on the computer screen will perform the exam with assistance from the nurse, speaking to both the patient and the nurse through the video monitor. The audio, video and other health information is all sent over a secure Virtual Health network. Some appointments may require use of special cameras which will be operated locally by the trained medical specialist or a nurse to help the specialist on the other end to see the specific need of the patient more clearly.

While not all referrals can be conducted through Virtual Health, there are tremendous benefits when this type of appointment is possible. Patients, families and military units see minimal work loss, less hassle, saved travel funds, no long drive to LRMC with an overnight stay and possible traffic.

Virtual Health appointments have doubled since throughout the first year they have been available at the USAHC-V. Overall, patients have had very positive experiences, many of them sharing that it was easier than expected.

Many patients also submit comments saying they think Virtual Health should be used more often, because they were glad they didn’t have to travel to Germany for a 30-minute appointment.
Since World War I, Occupational Therapists and Physical Therapists (formerly known as reconstruction aides) and Dietitians have served the Army in a civilian capacity. On April 16, 1947 the Women's Army Specialist Corps, comprised of officers from those three professions, was established by Public Law 80-36. The law was amended in 1955 to allow commissioning of males and the corps was renamed the Army Medical Specialist Corps (AMSC). In 1992, Physician Assistants were converted from warrant to commissioned officers and added to the corps' skill inventory. By providing direct medical care as independent practitioners and physician extenders, AMSC officers play a key role in ensuring military medical readiness both on and off the battlefield. AMSC officers have served in every major conflict and humanitarian mission since the corps inception. The AMSC operates nationally recognized education and training programs as well as innovative programs that focus on unit-level health and fitness promotion, disease and injury prevention and outcomes research. Around the world, when duty calls AMSC officers continue to provide first class health care to Soldiers and Families.

The Army Medical Specialist Corps includes four areas of specialty: Occupational Therapist, Physical Therapist, Dietitian, and Physician Assistant.

The Army Medical Specialist Corps is the cornerstone of medical readiness, providing worldwide support and a deployable force through direct patient care, injury prevention, rehabilitation, healthy lifestyle promotion and education.
Over the past two years, Maj. Fe Nall, chief of the Intensive Outpatient Program in the Department of Behavioral Health at Reynolds Army Health Clinic, has provided Soldiers with programs to improve their mental and spiritual health, and improve the overall readiness for Fort Sill.

Her most recent program is in tandem with the Fort Sill Family Life Program and Family Life Chaplain (Maj.) David Ditolla. As part of the Intensive-Outpatient Program (IOP), Ditolla leads twice weekly group therapy sessions that incorporate the spirituality component of psychological health, healing and resiliency.

"The program is faith based, not religion based," said Ditolla. "We focus on moral injuries in an individual's life that have occurred on or off the battlefield. When a person's value system has been violated, either through their own actions or the actions of others, I use the group therapy sessions to work through the guilt and/or shame that often comes with such spiritual injuries.

"Speaking about shame in a safe place is the greatest healer of shame," continued Ditolla.

This statement was echoed by Sgt. Alex Graber a Soldier with Headquarters, 434th Field Artillery Brigade and a participant in Ditolla's therapy sessions.

"The courage to start sharing in the group setting frees you from guilt and pain," said Graber. "The hurt is going to hurt, it's all about how you deal with it.

"There is an overwhelming sense of acceptance and a nonjudgmental feeling from everyone here in the IOP program and the group therapy sessions that let me be able to really open up in a way that I had not been able to before," said Graber. "Chaplain Ditolla works hard to push through our Soldier mentality, that wall of toughness we all put up so we don't appear weak or vulnerable."

The chaplain coined the term "terminal uniqueness" to describe many Soldiers he sees.

"It's an idea that they are the only ones that are going through whatever it is their problem may be. They feel, 'If anyone knew about this about me...'") said Ditolla, "and the isolation that brings is very crippling."

Pfc. James Ramsey, Headquarters Battery, 2nd Battalion, 20th Field Artillery, said he wholeheartedly agreed with the chaplain's statement.

"I wish I had spoken up in the group a lot sooner," said Ramsey. "I am not a religious person but it didn't take me long to see that Chaplain Ditolla is genuinely concerned with my issues. I found a lot of acceptance here, and once I did take that step to open up, it really helped me to heal and grow.

"We are not defined by our past and our problems," Ditolla said, "Broken people can be made whole again and find that relief from our shame and guilt. I am thankful that I have had the opportunity to work with Major Nall and the IOP program, and I look forward to many future sessions with Soldiers who need the healing we can bring."

From Nall's perspective Ditolla brings a bit more familiarity into the perspective of the Soldier.

"The chaplain services have been a significant fixture in the Soldier's life since the beginning. Today, the chaplains are at the forefront and the Soldier's go-to-guy for counseling or advice. The Soldiers in our program respond very well in terms of getting back to their faith and enhancing that aspect.

The Moral Injury session offers a different perspective for Soldiers apart from the mainstream behavioral health approaches that we provide in our program."

If you, or someone you know, is in need of help, call the National Suicide Prevention Lifeline at 1-800-273-8255.

For more information, contact your local Behavioral Health department.
The military’s greater use of tourniquets has had an impact on civilian trauma care as well, Nessen said.

In the aftermath of the Sutherland Springs church shooting in Texas in November, Nessen said that some of the victims that were cared for had tourniquets on and they survived as a result.

TRANSFUSION THERAPY

In 2003 when he was in Iraq, Nessen said he found that modern methods of blood storage -- the splitting of blood into components such as red blood cells, plasma and platelets -- caused some problems on the battlefield.

Combat support hospitals had the ability to keep frozen plasma and red blood cells on hand in sufficient quantities. But the requirements for storing platelets proved a challenge. As a result, platelets were not always available or were given in a smaller quantity than necessary to enable blood to coagulate.

During his next tour, in Afghanistan, an improved means of cold-storing platelets had been developed. Now, platelets could be stored longer. And when patients in combat zones needed all three components of blood at the same time, all three were available in sufficient amounts. As a result of that advancement, he said, lives were being saved.

Today, blood platelets can be stored for weeks at a time, he said, instead of only a few days.

HYPOTHERMIA PREVENTION

Trauma patients are very susceptible to hypothermia. Cold weather contributes to coagulopathy, having frequently occurred to wounded Soldiers in the early war years in Afghanistan and Iraq. Nessen explained that coagulopathy means the blood's ability to coagulate is impaired, leading to excessive bleeding.

During Nessen's tour in Afghanistan, he said it got very cold in the eastern mountainous region where he was serving, and coagulopathy was a real issue.

Col. Shawn C. Nessen (center), commander of the 541st (Airborne) Forward Surgical Team in Afghanistan, works on a patient in the operating room while deployed in support of Operation Enduring Freedom. (Photo credit: Courtesy of Col. Shawn C. Nessen)
The Army Trials took place February 27–March 8, 2018 in Fort Bliss, Texas, hosted by the Deputy Chief of Staff, Warrior Care and Transition. Seventy-four wounded, ill or injured active duty Soldiers and veterans competed in nine events with hopes of earning a spot on Team Army for the 2018 Department of Defense Warrior Games, June 2–9 in Colorado Springs, Colorado.

The Warrior Games is a multi-sport event for wounded, injured or ill service personnel and veterans organized by the United States Department of Defense (DoD). Each wounded, ill and injured Soldier has their own unique story and journey to recovery. By competing in the 2018 Department of Defense Warrior Games as part of Team Army, these brave men and women continue to prove their strength and resiliency. The Games are an opportunity for athletes to showcase their competitive edge, develop lasting relationships and heal, both physically and mentally.

The Warrior Care and Transition Program equips wounded, ill and injured Soldiers with the resources to return to duty or transition into veteran status. As part of Army Warrior Care’s whole-Soldier approach, adaptive re-conditioning is introduced to Soldiers in transition to help them remain active and teach them new ways to do different activities, like the sports they have always loved or new activities they never thought possible. With every push forward, the Army athletes at the heart of these games show just what happens when resiliency overpowers fear and the impossible becomes attainable.
2018 U.S. Army Trials athletes challenge each other at the net during a game of Seated Volleyball at Fort Bliss, Texas. (U.S. Army photo by Sgt. Brooks Schnetzler)


Sgt. Cory Ivins attempts a lift during powerlifting training, one of two inaugural competitions at the 2018 Army Trials being held at Fort Bliss, Texas, March 2-9. (U.S. Army photo by Marcy Sanchez)

Retired U.S. Army Sgt 1st Class Carl Morgan, formerly assigned to the Warrior Transition Battalion, Fort Gillem chases the ball before it goes out-of-bounds during a game of Wheelchair Basketball at Fort Bliss, Texas. (U.S. Army photo by Sgt. Brooks Schnetzler)


Left: U.S. Army Spc. Patel Manthan assigned to the Warrior Transition Battalion, Fort Bliss, Texas, aim his target during the shooting event training at Fort Bliss, Texas, March 1, 2018. (U.S. Army photo by Spc. Nathanael Mercado)

FOLLOW THE GAMES
JUNE 2-9, 2018

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MERCURY 15
In the uncertain and changing global environment of the 21st century, the Army’s philosophy on physical fitness and Soldier health has been evolving. Army leaders realize that changing the culture of fitness in the Army to a holistic approach is key to achieving and maintaining a more permanent standard of performance.

Coaches from the South Carolina National Guard’s Warrior Fitness Team conducted a demonstration of the proposed Army Combat Readiness Test (ACRT) for South Carolina National Guard Soldiers at McCrady Training Center on Mar. 4, 2018.

The ACRT is designed as a gender-neutral comprehensive assessment of a Soldier’s ability to perform during combat and includes events that better encompass the facets of physical performance. The ACRT is part of the Army’s “Holistic Health and Fitness” model aimed at improving the conditioning and overall health and wellness of all service members.

The South Carolina National Guard (SCNG) leadership knows how important Soldier fitness is to readiness and adaptability and has spearheaded a statewide initiative to change the culture and improve Soldier fitness by implementing the Warrior Fitness Program.

The Warrior Fitness Program Team is on a mission to enhance the culture of fitness and conditioning within the SCNG by providing world-class coaching and training to every service member, regardless of where they live.

The Warrior Fitness Team is composed of 8 performance coaches responsible for managing seven holistic health and fitness centers across the state. Each performance coach is a Certified Strength and Conditioning Specialist with training and educational backgrounds in Exercise/Health Sciences.

“We are providing SCNG members with the same level of training and coaching that collegiate athletes receive because we believe that as a member of the SCNG, you are part of an elite fighting team,” said Command Sgt. Maj., Russ Vickery, the state command sgt. Maj and leader of the SCNG Warrior Fitness Program initiative.

Vickery emphasized, “This is a free service for all South Carolina National Guard members. The Warrior Fitness coaches have the highest levels of training, certifications and education. The Warrior Fitness performance coaches are dedicated to improving the fitness of every single member in our ranks.”

The Warrior Fitness Team is committed to providing the service, training and education required to ensure that all SCNG members can perform optimally in a “fight” as well as in their day-to-day lives.

“Every member of the South Carolina National Guard needs to understand their value as a member and asset to the total force,” said Ron Doiron, director of the Warrior Fitness Program and retired Army veteran. “Each ser-

[Continued on page 17]
vice member needs to be treated as a valued member that the military and American people have invested in. We design programs to prepare service members for the missions ahead, making them physically capable to accomplish all missions assigned, local and abroad.

The Warrior Fitness Team truly understands the physical demands of the military and the unique challenges traditional members face when trying to maintain personal fitness while holding down civilian jobs and taking care of their families.

Doiron coined the “2/28 Principle” to address the National Guard’s needs. The principle states that units and commanders have Soldiers 2 days out of the month to train on Mission Essential Tasks, with little or no time left available for physical fitness training. So, he asks leaders to give his coaches their Soldiers for the remaining 28 days of the month, where they can be effectively coached on programs to improve personal fitness, conditioning and readiness.

“The new ACRT is coming. The focus for fitness is being shifted towards work-functional performance. There is no real and continued level of performance without training in precision of movement and proper conditioning protocols, the same process used by professional and collegiate sport teams; preparation for performance,” said Doiron. “In the case of the military, the preparation is not to win games, but to win wars.”

Jacob Crouch, a Warrior Fitness Performance coach for the West Columbia region describes the role of the Warrior Fitness coaches as a preventative prescription, teaching Soldiers how to train correctly and maximize performance goals, to avoid and reduce training related injuries. The program boosts morale, fosters camaraderie and facilitates a culture where strength training and conditioning is considered fun.

“[Continued from page 16] The first thing we do is schedule an initial consultation with the service member to find out what their goals are. Then, we do an assessment to evaluate integrity of movement and correct any deficits we find. From there, we work with them on creating a training plan that fits into their lives, using the equipment and time that is available to them. We get very creative. If someone doesn’t have access to barbells to practice deadlifts, we can use a tool box from their garage.”

The Warrior Fitness Team conducts group training sessions daily around the state that any member of the SCNG and family members can attend. To find out more about where the trainings are located, contact the Warrior Fitness Team at scngwarriorfitness@gmail.com or facebook.com/scngwarriorfitness.

www.womenshealth.gov

National Women’s Health Week is an observance led by the U.S. Department of Health and Human Services Office on Women’s Health. The goal is to empower women to make their health a priority. The week also serves as a time to encourage women to take steps to improve their health. The 18th annual National Women’s Health Week kicks off on Mother’s Day, May 13, and is celebrated through May 19, 2018.

To improve your physical and mental health, you can:

- Visit a doctor or nurse for a well-woman visit (checkup) and preventive screenings.
- Get active.
- Eat healthy.
- Pay attention to mental health, including getting enough sleep and managing stress.
- Avoid unhealthy behaviors, such as smoking, texting while driving, and not wearing a seatbelt or bicycle helmet.

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I felt the back of my head connect with wood as my brain rocked inside of my skull. My perpetually graceless body went limp as my backside fell to meet the sand below. “I hit my head,” said a voice coming from my sweaty face.

On July 28, 2017, I had woken up a normal version of myself, but I was soon headed down a lengthier path, filled with more obstacles than the one I began at physical training that stifling morning.

The Blow
Two days prior I felt confident as a public affairs print journalist and noncommissioned officer in the Army. I gave the performance of my life at the last face-to-face promotion board of my career, successfully jumping one more hurdle on the way to staff sergeant.

I was the Headquarters and Headquarters Battalion, 82nd Airborne Division, NCO of the Quarter. Two days later I was having trouble forming thoughts and getting words out. “I hit my head on the obstacle course during PT,” I told the medics later that morning. “My headache is getting worse.”

Sgt. James Hartsell, my friend and the battalion aid station senior medic, said I wasn’t acting like my normal, bubbly self. I didn’t know it at that moment, but it would be a few months until I would begin to feel like myself again.

“It’s a concussion,” 1st Lt. Lamar Adams, the HHBN physician assistant, told me. Adams said my case was on the mild end of the wide head injury spectrum. He explained concussions can quite master how to take a knee.

In the Army we learn how to be resilient under certain extremes, but I think we maybe never learned the correct turn.

The Clinic
At the next appointment with Adams, he referred me to a clinic specializing in head injuries to help control the vice grip on my temples and get me feeling like me again. My hypersensitive pupils objected to the blinding August sun as I passed the big “Intrepid Spirit” sign on Longstreet Road twice before finally making the correct turn.

The concussion care clinic at Fort Bragg had existed in some form, under various names for a number of years inside Womack Army Medical Center. It wasn’t until 2016 that Fort Bragg’s Intrepid Spirit center came to life, operating in a dedicated facility based on the model of care offered by the National Intrepid Center of Excellence at Walter Reed National Military Medical Center. The Intrepid Fallen Heroes Fund helped make it possible for the Department of Defense to establish the NICOE and 12 new Intrepid Spirit clinics across the total force, all specializing in TBI associated conditions.

I was a basket case when I first walked into the clinic, but by the time I walked out I felt much more at ease. “Education is a big piece of what we do,” explained U.S. Public Health Service Cmdr. Scott Klimp, director of Fort Bragg Intrepid Spirit. “Whether it’s from that initial evaluation and helping to let those patients know that what they’re experiencing is common and that they can get better … really just helping to normalize those things is a huge relief for patients.”

I learned why this clinic was so unique at my intake appointment with Christina Horvath, a physician assistant at Intrepid Spirit. “Almost everything that we need to do for a patient is right here in the building,” Horvath told me.

She wasn’t kidding. The facility was brimming with providers, specialists and therapists focused only on TBI and associated conditions. “Here, the patient I see is the patient I then follow up on, so there’s continuity,” Horvath said. “You get to see the specialists who are part of this clinic and you get to follow up with the same provider who saw you.”

On the way out, I made my first round of appointments from the laundry list Horvath gave me, before heading to pick up a new prescription for the invisible knife in my head. My new appointment schedule had me almost living at Intrepid Spirit, starting with cognitive rehabilitation, yoga therapy, physical therapy, a neuro-optometry assessment and occupational therapy.

“It’s a journey ... but as long as (patients are) compliant with who they see, their medications [Continued on page 19]
(and follow) the restrictions of their profile, every time they come in something is better,” Horvath said. “If not, we figure out the next step.”

Healing Inside

I wholeheartedly devoted myself to recovering, starting with my mind. “I do what’s called cognitive rehabilitation,” said Evelyn Galvis, a speech-language pathologist at Intrepid Spirit. “Which is what I usually describe to patients as brain aerobics.”

At my first session, Galvis told me naptime was over and we got to work. She kept me on my toes with puzzles, brain games and homework. “What we’re looking at is how to challenge yourself to potentially improve your neuroplasticity,” Galvis explained. “For all of us neuroplasticity is key. If you don’t use it, you lose it. All brain functions work this way. It’s true for the muscles in our body, if you don’t use them they atrophy.”

I dug deep into my homework. Galvis gave me a list of free brain training apps to download on my phone, and I paid for the full version. I invested in myself. The daily frustration I felt when I couldn’t recall a simple word or remember someone’s name slowly began to ease. I could think more clearly.

All the while, I was spending time each week working with other providers on pieces of myself that ultimately fit into my TBI puzzle. I got a prescription for glasses, one pair was blue but my sensitive eyes were already improving enough that I didn’t need the tint.

Horvath decided yoga therapy would be beneficial to my recovery, but I didn’t grasp her intent right away. My heart has always been close to yoga. When I first got hurt I even tried to slowly navigate a yoga routine I used to practice daily, but I just could not will my body to move properly. The greatest force in my healing path was Alyson Rhodes, a yoga therapist at Intrepid Spirit. Rhodes was previously a physician’s assistant in the Army, and started yoga as a patient herself following a lower body jump injury. “It wasn’t just about my injury, it was all the ways that I felt about that, and kind of just feeling like I was less of a person, and I was annoyed, (angry, scared and) all those things that go with it,” Rhodes told me. Her words were all too familiar. I was internally conflicted by my need to rest and desire to be whole again. Rhodes said she was drawn to yoga as a low impact exercise, but later realized it was more than physical. The relaxation helped her adddress and manage some feelings she had about her injury.

I very awkwardly and noticeably cried through my whole first session. Rhodes asked if I needed to come in for individual appointments, but I think my mind caught up to my body realizing it was allowed to slow down and heal. I knew wherever I wanted to be, I needed to listen to my body to get there, so I took more handouts from Rhodes, and put in what effort my body would allow. I recorded audio of my last yoga session so I could have something to take with me, and by that time the seasons were beginning to change. I used each small victory as fuel, driving me toward the finish line.

Deadlines

Time and the right prescription were steadily improving my headaches, and each visit to the clinic made me think of the poem “Invictus” by William Ernest Henley as I turned at the big “Intrepid Spirit” sign.

The Army threw a few curveballs into my healing timeline when I began physical therapy with Shaun Carlson, a physical therapist at Intrepid Spirit. Carlson told me I could ease back into activity, but I wasn’t allowed to run yet. The same week my branch manager informed me that my husband and I would be moving to a new duty station.

My original worries about taking a knee returned when I learned that on the way to my new duty station I would also be attending the Advanced Leader’s Course. My mind spiraled. I needed to take and pass an Army Physical Fitness Test to do these things, and in order to do that, I needed to run. I couldn’t run until my brain stopped throbbing every time I exerted myself. Time was ticking and I was scared. “If you don’t give yourself that time to relax, the symptoms just stay stagnant,” Carlson told me. “The body needs to recover. It’s just like any other injury. Say I break my foot. I don’t want to get out there and just keep walking and running on it, because it’s never going to heal – same thing with the head.”

I followed Carlson’s plan and tried not to panic. I didn’t have time to be injured anymore because I officially had things to do.

Carlson explained the cause of post-concussional exertional headaches is still unknown, but one theory involves heart rates and blood pressure. “People tend to get to (the) cardiovascular portion of their heart rate really quick,” Carlson added. “So with that spike in their heart rate with activity comes increase in headache.”

I started with circuit training and heartbeat monitored bike workouts. When I could tolerate that, I advanced to the Alter-G Anti-Gravity Treadmill for controlled interval training.

“We’re looking to see where (patients) get those symptoms and ... start there, keep them there until they can tolerate that much exercise and then push them a little further as they become more tolerant,” Carlson said. “So we’re not over doing it, we’re just progressively getting the exertion back up.”

I negotiated with Carlson based on my progress and upcoming career deadlines, and he wrote me a return to run plan, with the caution to back off if any symptoms started. In my flurry of recovery, I was at the clinic sometimes twice a day for vision rehab appointments with occupational therapy for my eyes and putting in work on the Alter-G machine. When Christmas decorations began to appear, I was ready to be an even better me.

A Hopeful Recovery

Rest, time, tears and calculated effort carried me through this journey. I graduated physical therapy in early December, crying tears of relief the whole way home. I did it; I recovered.

On Dec. 19, a culmination of efforts occurred when I took the APFT. I felt my own hard work and the Intrepid Spirit team’s dedication propel me across the finish line of the two-mile run. I didn’t just pass – I crushed the APFT with a 270 score. Every worry and insecurity about my condition vanished. I could only think about continuing to improve my run time ahead of ALC and my impending move.

My last eye appointment revealed unbelievable progress from vision rehab. The thick, coke-bottle prescription in my right eye was cut in half, and my astigmatism was gone entirely. I walked out of the clinic better than I walked in, and then some.

At the end of this experience I felt fortunate that my TBI was not more serious, because other patients at Intrepid Spirit still have a longer, tougher journey ahead. My involvement with the clinic’s scope of practice barely scratched the surface given my mild condition, but I know those who share my struggle will be taken care of by the best. The range of care at Intrepid Spirit seemed almost limitless from my experience.

I am grateful for the team who helped me on this path, and that this resource was within reach to put me back together.

Namaste, Intrepid Spirit.

Sgt. Paige Behringer
9th Public Affairs Detachment
The U.S. Army Veterinary Corps was formally established by an Act of Congress on June 3, 1916. However, recognition of the need for veterinary expertise had been evolving since 1776 when General Washington directed that a "regiment of horse with a farrier" be raised.

During the War between the States, War Department General Orders provided each Cavalry regiment with a veterinary surgeon in the rank of regimental sergeant major and pay of $75 a month. Further recognition of the need for veterinarians evolved after the Civil War concluded. In 1875, Congress authorized, for the artillery, medicines and dressings for horses but did not authorize veterinarians, in contrast to their cavalry counterparts. Congress passed a resolution in 1879 requiring all applicants for veterinary positions with the cavalry be graduates of a recognized veterinary college.

In the 1890's veterinarians were being sought to inspect meat, poultry and dairy products destined for the frontier posts. Strong academic background in microbiology, epidemiology, pathology and public health has always made veterinarians ideally suited for a role in ensuring wholesomeness of food.

The Spanish American War was pivotal in the evolutionary pathway leading to establishment of the Veterinary Corps. The Army had inadequately prepared for its role in maintaining the health of both its animals and its Soldiers prior to the war. The infamous "embalmed beef" scandal, incorrectly absorbed blame for the loss of numerous American lives. In actuality, there was a lack of adequate quality assurance factors which lead directly to the loss of thousands of American lives as well as having rendered even greater numbers of soldiers completely ineffective. The country began demanding that something be done to preclude such catastrophes in the future.

The American Veterinary Medical Association and numerous other individuals began actively supporting legislation directed toward establishment of an Army Veterinary Corps. Finally, as a result of passage of the National Defense Act of June 3, 1916, veterinary officer commissioning became a reality and the Army Surgeon General began the work of organizing this new Corps within the Regular Army. When war was declared in April 1917, there were fifty-seven veterinarians working for the Army, primarily in the area of equine surgery and medicine. Within 18 months the newly established Corps grew to 2,313 officers.

Veterinary Corps participation in all of our nation's conflicts since World War I has been an essential element in the maintenance of the health and well being of both animals and Soldiers. The highly technical education obtained by veterinarians has continued to prepare them for their changing mission requirements for over the past ninety years.

Following the establishment of an Air Force Veterinary Corps in 1949, the Army shared military veterinary responsibilities with its sister service. However, in 1979 Congress directed changes to the Department of Defense (DoD) veterinary missions. Effective March 31, 1980 the Air Force Veterinary Corps was disestablished and the Army became the Executive Agent for all DoD veterinary services.

The U.S. Army Veterinary Corps continues to significantly impact current operations. Veterinary unit commanders and their personnel are critical in effecting remarkably low food borne illness rates. This is in great measure a result of veterinary inspection of subsistence in the United States as well as the approval of safe food sources around the world. Army veterinarians ensure the health of military working dogs and assist with host-nation related animal emergencies. Veterinary staff advisors also play key roles regarding issues involving chemical and biological defense.

At home, military veterinary supervision of operational ration assembly plants, supply and distribution points, ports of debarkation, and other types of subsistence operations are critical to ensuring safe, wholesome food for our Soldiers, Sailors, Airmen, Marines, and their family members. The large segment of the Veterinary Corps involved in Medical Research and Development missions contribute immeasurably to the overall military effort. Vaccine, antitoxin, and antidote development, directed toward the protection of military personnel, has been and will continue to be, heavily reliant on military veterinary expertise.
Let’s flash back to the U.S. military in 2006. The U.S. had been engaged in Operation Enduring Freedom and Operation Iraqi Freedom for five and three years, respectively. In a post-9/11 environment with a higher operations tempo and longer and more frequent deployments, the U.S. military had an ongoing need to enhance mental and physical resilience and decrease injuries among deployed service members.

In June of that same year, the Uniformed Services University of the Health Sciences hosted a conference titled “Human Performance Optimization in the Department of Defense: Charting a Course for the Future,” with the goal of developing a strategic plan for human performance optimization (HPO). That conference marked DOD’s acknowledgment of the importance of promoting warrior wellness and modernizing, training and structuring the force by leveraging cutting-edge science and technology (S&T) that would optimize the performance of servicemen and women in all stages of their careers. Such an approach would set the conditions for a more lethal force by ensuring that warriors would be ready to respond to present and future threats. The conference was when the HPO effort officially emerged.

Flash forward to 2017, when knowledge and technologies to enhance and sustain warfighters’ health, well-being and performance as part of the HPO effort continued to evolve. DOD now considers HPO fundamental to accomplishing the military’s mission. For the U.S. Army Research Institute of Environmental Medicine (USARIEM), HPO is a newer, shorter term to describe the research that the small Army medical lab in Natick, Massachusetts, has been doing for more than 50 years.

**CONTINUOUS OPTIMIZATION**

The USARIEM team prioritizes Army readiness by engaging in essential medical research focused on optimizing servicemen and women’s health and performance during training and on the battlefield. “USARIEM partners with DOD, other federal entities, universities, nonprofits and industry stakeholders extensively to answer military-relevant questions and optimize Soldiers’ health, resilience and performance,” said Col. Raymond Phua, commander of USARIEM.

USARIEM’s location at Natick Soldier Systems Center, a 30-minute drive west of Boston, puts the lab in close proximity to the extensive academic, federal and commercial knowledge and research assets of the Northeast corridor, giving researchers access to top potential collaborators. USARIEM is one of the very few labs in the world where all aspects of HPO come together.

While the lab looks at HPO through a biomedical or a bioengineering lens, USARIEM’s holistic approach to attaining an “optimized performance state,” as Dr. Karl Friedl, USARIEM’s senior research scientist for performance physiology described it, sets the lab apart. Friedl also explained that the unique and critical research capabilities that USARIEM provides to the DA, DOD and the nation are the synergy of subject matter expertise on performance, nutrition, environmental stressors and biomedical modeling from civilian researchers and Soldier scientists.

“The Army will always have Soldiers holding terrains in parts of the world that have extreme environments, and as long as we continue to encounter threats near and far, warfighters will always encounter risks,” Friedl said. “This makes an optimized performance state sound like an elusive goal. While we cannot eliminate these risks, we can mitigate them.”

“USARIEM is the only lab that has looked at all aspects of Soldiers’ physical and cognitive performance, in terms of health, occupation and the environments they work in. We aim to sustain the health and fighting ability of warfighters by developing military medical doctrine and technology that will give warfighters the ability to meet the physical and cognitive demands of any combat or duty position, accomplish the mission and continue to win present and future fights.”

USARIEM’s internationally recognized research leaders are executing and supporting key products and strategic doctrine shifts, which include the U.S. Army Training and Doctrine Command (TRADOC) project to examine the knowledge, skills, abilities and other attributes of Soldiers... [Continued on page 22]
[Continued from page 21] 

tributes associated with military occupational specialties (MOSs), as well as the Army surgeon general’s 2020 strategy of shifting to a system of health through the areas of performance and nutrition, with the goal of attaining high-quality, longer lives free of preventable disease, disability, injury and premature death.

Here are some of the emerging USARIEM technologies, medical doctrine and future research efforts to optimize warfighter health and performance in a variety of occupational environments and situations.

EMERGING USARIEM TECHNOLOGIES

The Estimated Core Temperature (ECTemp) algorithm accurately estimates a Soldier’s core body temperature simply by analyzing heart rate changes over time. Physiologically, heart rate reflects both the blood flow to the muscles and the rate of blood flow to the skin, containing information about both heat production and heat loss from the body. ECTemp can be incorporated into wearable technology, such as a chest harness with a physiological status monitor, which mission leaders and medics can monitor with a phone to detect if one or more Soldiers are at increased risk of heat illness. USARIEM developed ECTemp based on years of physiological data collected from multiple studies. By providing accurate core temperature information, the ECTemp can help military leaders make timely, critical training and mission decisions in hot, humid and unpredictable environments. The ECTemp has opened the door to future monitoring apps and wearable technology for the military.

Unit leaders can use the Altitude Readiness Management System (ARMS) to plan missions with appropriate expectations. By using data from more than 25 years of USARIEM’s altitude studies, ARMS predicts how likely Soldiers are to experience acute mountain sickness during a mission, and how severely. ARMS also calculates how much time Soldiers need to complete missions and acculturates to a variety of altitudes. Unit leaders can use this easily accessible information to alter high-altitude missions before deployment in order to prevent hypoxic events. The app is now fielded on the Nett Warrior platform and is being fielded through the TRADOC online app store this year.

The Soldier Water Estimation Tool (SWET) is an Android-based smartphone app and mission planning tool that can predict average water needs for groups of Soldiers for defined periods of time. The app uses a validated, updated sweat prediction equation based on five decades of USARIEM’s research on sweat loss and hydration. A unit leader can plug in the temperature, humidity, cloud cover, type of clothing worn and Soldiers’ workload. The app does the rest of the work. SWET supports the use of real-world planning in military settings in a variety of outdoor conditions. The app is now fielded on the Nett Warrior platform and, along with ARMS, is also being made available on the TRADOC app store this year.

The Performance Readiness Bar (PRB) is a calcium- and vitamin D-fortified snack bar developed to optimize bone health in basic trainees. The snack bar was distributed at Fort Benning, Georgia, in the summer of 2017 and will be distributed at all four Army basic training locations in 2018. Calcium and vitamin D have already been proven to be necessary nutrients to improve bone health. However, USARIEM researchers’ findings indicated that basic trainees needed higher-than-average amounts of calcium and vitamin D to support bone health during initial military training.

According to the Military Health System, recruits often arrive at basic training with poor calcium and vitamin D status, making their bones more vulnerable to stress fractures and other injuries. PRB is one solution to this problem that will reduce attrition and personnel costs associated with initial military training, increasing Army readiness.

The Occupational Physical Assessment Test (OPAT) was part of the TRADOC Soldier 2020 initiative, which would help set the standards necessary for Soldiers—male and female—to perform in combat MOSs. USARIEM researchers broke down those specialties into essential physical capabilities that a Soldier needs to be trainable for a given specialty.

Throughout 2016, USARIEM researchers conducted more than 27 field studies in initial military training settings at Fort Benning, Georgia, Fort Leonard Wood, Missouri, and Fort Sill, Oklahoma, administering a robust battery of physical performance tasks and questionnaires before and after training. This effort resulted in the OPAT, which contains a battery of four tests: a standing long jump, a medicine ball throw, an incremental squat lift and a 1.5-mile run in under 10 minutes. The OPAT was part of the TRADOC Soldier 2020 initiative, which would help set the standards necessary for Soldiers—male and female—to perform in combat MOSs. USARIEM researchers broke down those specialties into essential physical capabilities that a Soldier needs to be trainable for a given specialty.

[Continued on page 23]
and an interval aerobic run. During this project, the USARIEM team validated the predictive ability of the OPAT to accurately place Soldiers into seven combat specialties.

As a result of their efforts, the OPAT was fully implemented starting in 2017; it is now required for all Army candidates seeking to enter active, reserve or National Guard duty. The USARIEM team now is conducting a longitudinal study in which it is following volunteers for the next two years of their service to assess how successful they are in their assigned specialties after receiving their OPAT results. This data will provide the Army information on injury and dropout rates in basic training, showing how much time and money used to rehabilitate and recycle Soldiers could be saved.

The Combat Rations Database (COMRAD) is an interactive, educational website that provides warfighters and military dietitians with information about military rations and the potential for affecting warfighters’ diets and mission readiness. With COMRAD, warfighters and dietitians can view nutrition information for entire menus and even specific food components, like drinks and side dishes, in three types of rations: Meals, Ready to Eat; First Strike Ration; and Meal, Cold Weather/Long Range Patrol. COMRAD is based on a nutritional database created in collaboration with USARIEM’s Military Nutrition Division. All nutritional information is accurate, and all menu components have been chemically analyzed, making COMRAD the go-to application for precise, easily accessible nutrition information on individual items, menus and daily food intake.

FUTURE RESEARCH TO OPTIMIZE THE WAR-FIGHTER

Warfighters engage in combat in all kinds of environments, including cold weather, such as in the Arctic. The question is: Are they prepared? USARIEM is conducting multiple research efforts, called Cold Weather Dexterity in Arctic Warfare, related to cold weather fighting protection. One of the biggest problems Soldiers can face is the loss of hand function and manual dexterity in the cold. This can happen when Soldiers do not wear gloves, causing the blood flow to the hands and fingers to decrease. Yet Soldiers can also experience reduced touch sensation and fine-motor dexterity by wearing gloves.

Either scenario could prevent warfighters from using their weapons or other sophisticated equipment that is required for the mission. USARIEM is collaborating with U.S. Army Alaska and the U.S. Army Mountain Warfare School to research and develop technologies to increase warmth and blood flow to the fingers and face. This effort could optimize performance in Arctic missions while preventing frostbite and other cold weather injuries.

Because of the unique multistressor environment of Army basic combat training, musculoskeletal injuries are common in recruits. The ARIEM Reduction in Musculoskeletal Injuries (ARMI) Study is a four-year research collaboration between USARIEM and the U.S. Army Public Health Center to develop evidence-based, actionable recommendations to Army leadership for strategies to reduce musculoskeletal injuries in basic combat training without reducing training standards. USARIEM researchers will be tracking 4,000 recruits throughout and for two years after basic combat training to identify risk factors and evaluate the effectiveness of ongoing musculoskeletal injury prevention and related initiatives.

Bullets and rockets are not the only things servicemen and women contend with when they deploy. Often, gastrointestinal illnesses, like travelers’ diarrhea, can decrease Soldiers’ performance, prompting USARIEM’s Nutrition Interventions. For the last few years, researchers from USARIEM and the Combat Feeding Directorate of the U.S. Army Natick Soldier Research, Development and Engineering Center (NSRDEC), an element of the U.S. Army Research, Development and Engineering Command (RDECOM), have been working together to understand the complex relationship between our health and the tens of trillions of microorganisms—including at least 1,000 known species of bacteria—living in our intestines. USARIEM researchers have conducted a series of field studies, from Natick to Pikes Peak in Colorado to Norway to characterize how different military stressors affect the gut microbiome and impact warfighter health. Some of these studies have shown that high altitudes, high physical stress and diet affect Soldiers’ gut health. USARIEM researchers plan to start testing for dietary interventions based on the findings of these and future gut health studies.

CONCLUSION

In the perpetually changing world of U.S. military S&T, HPO is one of the newer terms and efforts. Yet USARIEM has been doing research on HPO for decades and will continue to do so. By tapping into civilian and military expertise in performance, nutrition, environmental stressors and modeling, as well as additional local and international partnerships with academic, federal and commercial knowledge and research assets, USARIEM has been able to generate knowledge, products and technologies that optimize the performance of service men and women throughout their careers.

For more information, go to www.usariem.army.mil.

DR. STEPHEN MUZA is the deputy director, science and technology, at USARIEM. He holds a Ph.D. in physiology and biophysics from the University of Kentucky, an M.S. in physiology and pharmacology from the University of North Dakota and a B.A. from Miami University. He is an international expert in environmental physiology and medicine with an emphasis in high-altitude medicine, and serves on many scientific panels, including those of the U.S. Army Medical Research and Materiel Command and the Defense Health Agency.

MS. MALLORY ROUSSEL is a science writer for the Science Strategic Management Office of USARIEM and a research fellow in the Oak Ridge Institute of Science and Education program. She holds a B.A. in English from Boston University.
Once a Soldier has met time requirements, Command Sergeant Major Carl Fagan, Fires Center of Excellence CSM, said the best thing a Soldier can do to go to the promotion board is "Ask for the order."

"A Soldier approaches his or her leadership and asks them, almost demands, 'Tell me what I need to do to get promoted to the next rank.' He said don't let the leader off the hook with the response of "You're not ready yet."

"What does ready mean, specifically? What do I need to do to get ready? Because once you actually have that conversation, then the leader finds him or herself obligated in the process," said Fagan.

TIPS FOR PREPPING

"The first thing a Soldier should do to get them ahead of the game is to ask their first sergeant from which guide should they study," said Fagan. "Their first sergeant is going to be sitting on the board so at the very least you're getting one of the board members telling you where they're pulling their questions and answers from."

For the staff sergeants board, Fagan said Soldiers need to look beyond study guides into field manuals, Army doctrine publications and Army doctrine reference publications.

At some point during the preparation process, the Soldier's study partner needs to be their first-line leader or part of their chain of command.

"This adds another layer of pressure. Pressure is good because we're trying to make a diamond," said Fagan.

He said the second most important thing is to know word-for-word Army Regulation 670-1 or Department of the Army Pamphlet 670-1.

"Once you know that, then actually make sure the stuff is on the uniform where the regulation said it's supposed to go. These are really simple things, but they're often the things that people mess up."

He said including the first sergeant in this process will ensure everything on the uniform is right before the board.

"If I'm the first sergeant and I know I've looked at that uniform and I said that uniform is good, it's going to be good on Game Day. This is my word that's walking into this room," said Fagan.

Although a lot of Soldiers are hesitant to engage their first sergeant directly in their professional development, Fagan said the secret to getting along with them and other senior noncommissioned officers is to ask them questions.

"Sergeants major love to be asked questions, especially opinion pieces," Fagan said with a smile.

He said the last way to start off the board on [Continued on page 25]
LEADERS’ TIPS FOR PASSING BOARDS

The right foot is to report properly. “There’s only one correct way to report. It’s ‘sergeant major. [Your rank] so-and-so reports.’ That’s it. Period. If you make a good first impression everything else will go well.”

TRAINING

Going to the boards for promotion or competition, is an uncomfortable process. But, Command Sergeant Major Derrick Rankins, 1st Battalion, 31st Field Artillery CSM said the trick is to treat it like any other training event.

“I had a leader who told me development is not an option,” said Rankins.

Rankins said going to the boards regardless of the end result creates better leaders because the Soldier practices good study habits; learns how to keep their composure in stressful conditions; and ultimately gains more knowledge about their job and what they need to succeed in the Army.

Part of the board is to see how well a Soldier keeps their bearing under pressure. Rankins laughed when he retold how his first sergeant threw a doughnut over his head during his sergeant board to see how he would react.

“I just stayed focused and answered my question. I didn’t move.”

When a Soldier volunteers to go to the Soldier or NCO Board he said it shows leadership they can put in the work necessary to do other competitive training like Airborne or Air Assault schools.

Rankins said to pass the boards, Soldiers only need to focus on applying themselves. That mentality served him well as he moved up the ranks. It also earned him the title of distinguished honor graduate during the Advanced Leaders Course. But, when he was told he was top of the class, his lack of reaction surprised the instructors.

“My instructor was like, ‘That’s all?’” said Rankins.

He said his goal was not to be distinguished honor graduate, but to push himself. He said too often Soldiers chase achievements and overlook the task at hand.

“I always put my best foot forward and if it came out to be the top of the class then that’s where it landed me.”

Fagan echoed that mentality.

“Even though I said to ‘Ask for the order,’ no one should be consumed by getting promoted. A lot of negativity comes from that. Force the leadership to tell them what they need to do to succeed and then get about the business of demonstrating that day-to-day work performance, that you have the potential for the next rank.”

STEPPING AHEAD

The Army focuses on physical fitness, but leaders say it’s the mental toughness that separates Fires Soldiers from the rest.

“Air defense artillery and field artillery are probably the most educated of all the combat arms branches,” said Fagan. “We have more college degrees per NCO than any other combat arms MOS. My advice to a young Fires person aspiring to be a sergeant major or command sergeant major is get your college degree. Start early and finish. It’s going to separate them from their peers, or make them as competitive as their peers."

Staff Sgt. Amanda Missick, B Battery, 1-31st FA, and FCoE NCO Board winner of the third quarter, said she enjoyed going to the board because it tested her knowledge.

“It assists you in being sharper as an NCO and whether most NCOs want to believe it or not, it makes you more competitive. It assists you in stepping out of that pack.”

After winning at the battalion and brigade levels, she had one month to prepare for the post-wide board. She said breaking down regulations helped her retain the information.

“I would open a regulation and find one interesting to me. I’d read the entire regulation from front to back and highlight things that jumped out at me and then I’d just go back and read it again later.”

Winning comes at a price because Missick will now go on to compete against, but she said it’s her support system that makes it worth the work.

“The way I look at it as I don’t see myself as doing it for me really. I see it as doing it for my battalion, or my brigade. Being part of a team where you bring a win home for everyone, not just for myself,” said Missick.

That team mentality is what Fagan said will help any leader as they move up in the ranks.

“No matter what new position you get promoted into, or no matter what new unit you come to as a new leader, there are already people there that know how that unit runs. The trick is to just be a positive leader and treat people like people, and people won’t let you fail. They’ll make sure you know what you need to know and give you the space to do the learning that you need to do to get up to speed.”

“I think that holds true from the smallest echelon, from a team all the way up to being a command sergeant major.”
Medical Readiness Relies on Commander and Individual Soldier Commitment
by 2nd Lt. Crystal Farris

The Army’s number one priority is ensuring the readiness of our forces to fight and win our nation’s wars. Readiness is the capability of our forces to conduct full range military operations and is determined by a unit’s manning, equipment and training.

Medical readiness is just one of the factors of personnel readiness, but one that Soldiers and commanders can directly influence.

“We really rely on our Soldiers to be medically ready,” said Col. Andrew Thayne, state surgeon for the Idaho Army National Guard. “We have plenty of tools for them to get that done and will help them to do so, but it is every single Soldier’s individual responsibility.”

Soldiers in the IDARNG are required to complete a Periodic Health Assessment (PHA), vision screening, dental exam, hearing test and individual personnel record review annually during their unit’s scheduled Soldier Readiness Processing (SRP) event.

SRP events are coordinated through the installation support unit and scheduled for units to attend annually between October and April. Commanders are responsible for their unit’s medical readiness and ensuring their Soldiers attend scheduled events.

“Commanders really need to help us by making sure that all Soldiers who need to go through SRP show up to their scheduled event,” said Col. Thomas McMahan, deputy commander of clinical services. “We know there are going to be exceptions that make attending these events not possible, and with command emphasis, we can address these situations too.”

Soldiers who miss their unit’s SRP date have multiple opportunities to make it up, including attending another unit’s SRP event, visiting the medical detachment during the week, utilizing the state’s fully funded voucher system or by receiving support through their unit’s organic medical assets.

The medical detachment on Gowen Field has a full-time physician assistant dedicated to conducting SRP and other medical related assessments. Appointments to see the physician assistant and complete PHAs can be scheduled every Tuesday and Thursday.

The voucher system offers traditional Soldiers a way to obtain medical and dental examinations, and authorized treatment, from civilian providers at no cost. Funding can also be made available for hearing and vision tests, as well as immunizations like the influenza vaccination.

“Commanders that have medical providers, such as doctors or physician assistants assigned to their units, can utilize this resource to complete PHAs with their Soldiers as training schedules allow.

Within 30 days of a scheduled SRP event, Soldiers are expected to complete a PHA questionnaire in order to provide SRP personnel a brief and accurate picture of their current health status. The questionnaire is accessible through the ‘My Medical’ link on the Army Knowledge Online website.

After Soldiers complete an SRP event, commanders need to track Soldiers who will require follow-on medical or dental support as determined during the SRP event. Commanders must monitor their unit’s medical readiness status and individual Soldier progress toward achieving a fully medical ready status. This can be done by using the Commander’s Portal accessible through the Medical Operational Data System suite.

“It’s a great dashboard that is easy to look at and breaks down by category where all the Soldiers are at,” said Capt. Christopher Stoker, deputy state surgeon and medical detachment unit commander. “If commanders can get comfortable with at least logging in monthly it will bring their attention to whether or not their units are medically ready.”

Currently the Idaho Army National Guard’s medical ready rate is approximately seven percent below the National Guard Bureau’s recommended goal of 90 percent. This is in part due to the number of Soldiers who do not complete their annual medical readiness processing and assessments.

“We consistently see a 20 percent no-show rate for units at their events,” said Stoker. “If Soldiers aren’t able to make their unit’s SRP we urge commanders to get them scheduled for a make-up event as soon as possible.”

To schedule your SRP, contact your local military treatment facility provider.
During Men’s Health Month in June, the U.S. Department of Health and Human Services encourages men and boys to take steps toward a healthier lifestyle. It is an opportunity to raise awareness about the impact of preventable illnesses such as heart disease and highlight ways to stay healthy, such as exercise and getting regular medical check-ups.

It is important to encourage men to take control of their health because men experience poorer health and die younger than women in the U.S. According to the U.S. Centers for Disease Control and Prevention, boys and men in the United States, on average, die 5.6 years earlier than women and die at higher rates from nine of the top 10 leading causes of death.

The HHS Office of Minority Health reminds men and boys that they can improve their health by seeking medical advice and taking other important steps such as making healthy food choices, staying active, quitting smoking, seeing a health care provider, and taking care of their mental health.

Find more info at minorityhealth.hhs.gov.
One Team, One Purpose...Conserving the fighting strength since 1775!