

## A Separate Peace

### Therapy in the U.S. military

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A soldier steps off the plane in Philadelphia, a duffel bag thrown over his shoulder, still carrying sand from Iraq in the seams of his fatigues. He walks slowly up the ramp, making deliberate small steps in his combat boots, careful to maintain his posture despite the pain from the year-old wound in his hip.

Much like the periodic numbness in his left hand and the sound of gunfire still shrieking in his ears he refuses to acknowledge the stabbing pain. He is still a strong soldier, and there are comrades much worse off who truly deserve the care and attention of the rehabilitation hospitals.

As seen with psychological ailments, such as post-traumatic stress disorder, many of America's returning soldiers adhere to a code of silence when addressing their nondebilitating wounds.

In comparison to the amputated limbs, severe burns, and permanent blindness suffered by others in military hospitals, many soldiers feel that loss of motor control in a few fingers, passing numbness in the limbs, and incessant ringing of the ears are problems hardly worth verbalizing.

However, as soldiers attempt to slip back into their former home lives, these "minor" disabilities start to present more of a barrier than before, especially when resuming peacetime occupations. By the time some soldiers are admitted to military therapy facilities, their debilitating conditions could have already been compounded by the stress of maintaining their secret and the higher probability of receiving additional injuries due to their disability.

### A Field in Wartime

As with so many other aspects of the American healthcare system, war has transformed the therapeutic environment. With a pronounced emphasis on the time limitation for recovery in wounded soldiers, more military therapists are being deployed overseas in medical centers and field hospitals in hopes of curtailing the number of permanently disabled soldiers.

Confronting extreme healthcare situations not often seen in civilian fields, military therapists are among the most proficient in their specialties, constantly dealing with patients whose lives depend on the fullest extent of therapeutic treatment.



U.S. Navy Physical Therapy Technician Jean Pierre Turnier examines an Iraqi patient aboard USNS Comfort.  
(Navy photo by Journalist Seaman Erica Mater)

When working at field hospitals, military therapists also serve as a stabilizing factor, capable of establishing strong ties with local communities caught amid the conflict. In conjunction with general physicians, physical therapists, nutritionists, and registered dietitians have been deployed to fortify relations with the civilian populace of countries such as Afghanistan and Iraq.

They distribute rations and nutritional supplements to people whose usual food supplies have been eliminated or cut off by war. Nutritionists also advise local farmers and other civilians about the basics of good hygiene in relation to preventing common ailments and sicknesses that are seen at smaller field clinics.

In Iraq, the common usage of roadside bombs and white phosphorus – an incendiary device, which bursts into a hail of burning phosphorus flakes upon impact – has also made the role of respiratory therapists extremely vital at Army medical centers. In overseas burn intensive care units, ventilators are seeing more usage than any U.S. hospital, with an increasing number of soldiers reporting extensive, and possibly fatal, burns.

Onsite clinical assessment is necessary to decide the immediacy of care – whether the therapist can handle a soldier's burns and respiratory impairments or if they need to be transported to a larger facility for interventional surgery.

Occupational therapists and nurses have also become a fundamental part of military healthcare overseas in assisting physicians in evaluating the conditions of not only coalition troops, but also those of allied Iraqi troops, and civilians caught in the crossfire.

Injuries from gunshot wounds, grenade explosions, and flying debris can produce long-term debilitating effects even after surgery, and battlefield therapists are often called upon to evaluate returning patients and design a therapy routines for injured soldiers.

### Home-grown Therapy

At U.S. medical centers, physical rehabilitation for servicemen and women who have had their limbs amputated is among the most pressing concerns of the therapeutic community. Adjustment to the usage of a prosthetic device is vital for these soldiers to resume careers in nonmilitary fields, and several military medical centers are exploring the greater potential of electronic prosthesis to allow more efficient recoveries.

For instance, the Gait Lab at the Washington, D.C.-based Walter Reed Army Medical Center is currently gathering data on amputees using a

high-tech, state-of-the-art computer system that combines reflective markers and infrared cameras to analyze how they move using their prosthesis.

Using oxygen and heart-rate monitors, the lab also can gather data on how much energy it takes for amputees to walk using prostheses. These monitoring systems allow clinicians to provide customized treatment to the patient based upon their individual physical requirements.

"The patients want to put on a prosthesis and be able to feel comfortable walking – transition to running if they need to – and do whatever other activities they want," says Barri Schnall, a PT at the Gait Lab.

"At this point, if they want to sprint or run, they need to change out of their walking prosthesis and into their running leg or foot. When we give feedback to the prosthetic companies, they can use the data that we have – and the information that we are providing – to help achieve the goal of providing a universal type of prosthesis."

In a building adjacent to at the Walter Reed facility, a very different form of therapy is underway. The Fire Arms Training System is part of occupational therapy that teaches soldiers how to fire military weapons despite new limitations.

Using a computer system to run combat-based and hunting scenarios, soldiers fire a variety of electronically integrated weapons at a large screen – the results are then digitally tallied in a computer, allowing the therapist to chart each patient's progress.

"From the research that we've done, we're using the best system to provide the most advanced therapy that the military is offering with firearms," says Barry Yancosek, a program manager at the Walter Reed facility. "A lot of [patients] say that this is the one therapy that makes them feel like a soldier or a Marine again."

#### A Different Standard

Unlike many civilian rehabilitation centers, there is an inordinate drive among many soldiers to return to their former range of ability, sometimes even pushing themselves beyond limits prescribed by physicians in civilian settings.

Trained to perform optimally under extreme conditions, soldiers are not accustomed to the traditionally slow rate of rehabilitation practiced in the civilian sector – the more capable soldiers will often attempt to extend therapy sessions or register for experimental therapy studies to get them back on their feet faster.

"The therapeutic environment differs in civilian, [Veteran's Affairs] (VA) and military facilities because the focus of the therapeutic environment is different," says Gabriela Cora, MD, MBA, president and founder of the Miami-based Executive Health and Wellness Institute, and a major in the Air Force Reserves.

"In a civilian setting, we may help individuals improve their condition to live fulfilling lives and to maximize their potential at school or at work. In military facilities with active-duty personnel or reservists, the focus is to assist our personnel to maximize their improvement and to operate at their top performance. There is much focus on being able to produce and perform at a high level. In a VA facility, other issues may come in to play, including disability needs or a more significant degree of impairment affecting every area of functioning," says Cora.

While the battles rage on in the Middle East, therapists continues to be in high demand, making sure American soldiers are at their physical and mental peaks, and ensuring the proper care of those who, due to the severity of their wounds, are unable to fight.

As coalition forces work toward reconciliation in the Middle East, it lands on the shoulders of our healthcare and therapeutic professionals to see that these young soldiers return home intact.

— *Bob Stott is a staff writer for Therapy Times. Questions and comments can be directed to [bstott@therapytimes.com](mailto:bstott@therapytimes.com).*



Supervised by program manager, Barry Yancosek, Marine Lance Cpl. Eric Frazier fires a 9 mm pistol electronically tied into the Fire Arms Training System at Walter reed Army Medical Center. (Defense Dept. photo by Fred W. Baker III)