

Department of Defense
**ADVANCED
REHABILITATION
CENTERS**
ARC



Welcome Packet

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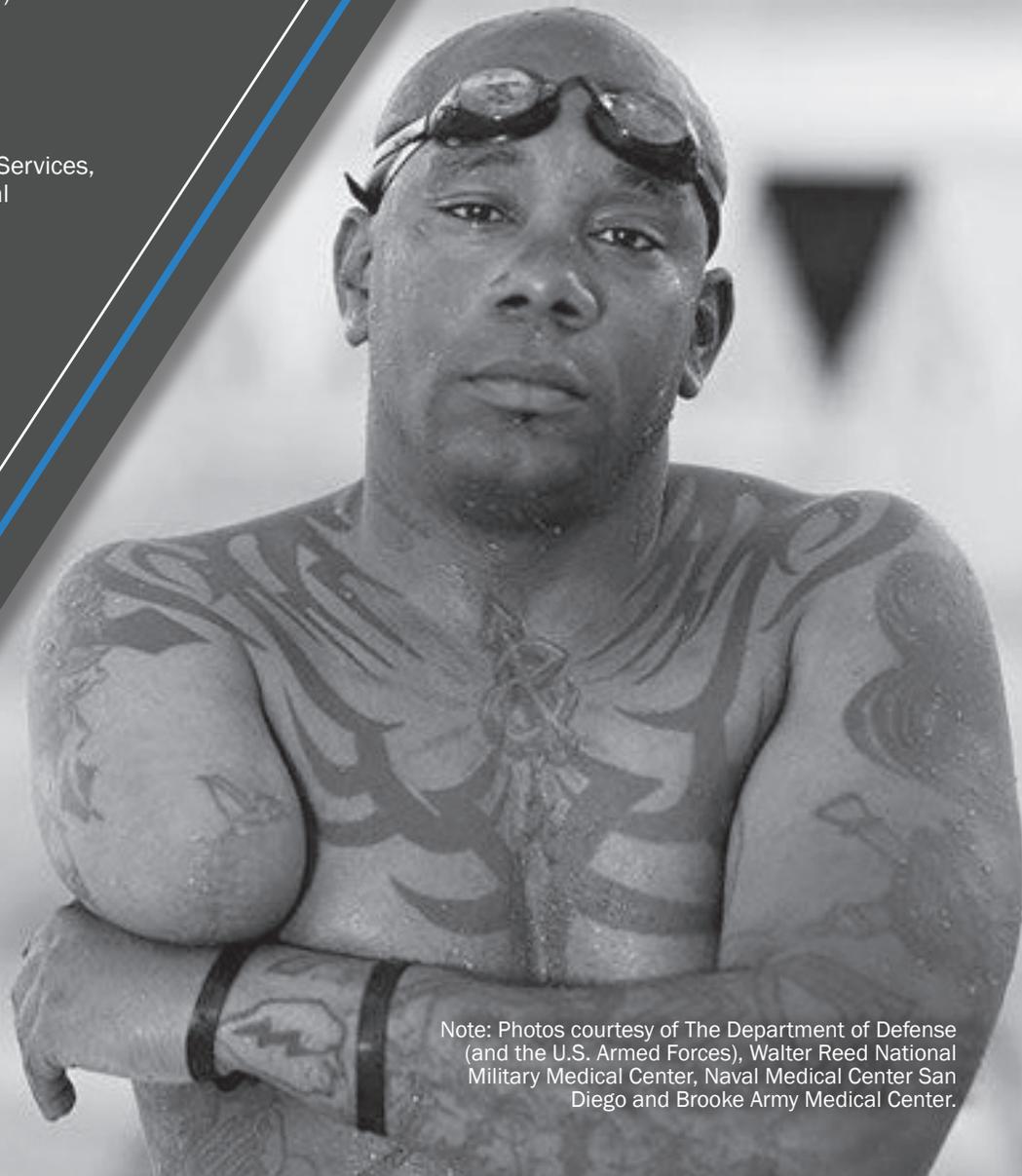
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Note: Photos courtesy of The Department of Defense (and the U.S. Armed Forces), Walter Reed National Military Medical Center, Naval Medical Center San Diego and Brooke Army Medical Center.

An Advanced Rehabilitation Center (ARC) is a Military Treatment Facility (MTF) based rehabilitation site that addresses the complex needs of individuals with severe limb dysfunction, including amputation, and addresses care for military beneficiaries of all ages. Typically, this limb dysfunction is of such a nature that amputation was considered; generally, there are other injuries along with the limb trauma or amputation. Routine musculoskeletal injury and limb trauma that does not result in consideration of amputation is adequately cared for throughout the Military Health System (MHS) in nonspecialized facilities. Through partnering with the best amputation care facilities and researchers in the world, along with industry and academia, ARCs provide state-of-the-art care to DOD beneficiaries, allied military personnel and select civilians from around the world. Their unique, transdisciplinary team approach to providing care has resulted in unprecedented innovation and technology advancement in limb trauma and amputation care.



ARCs have:

- The ability to care for adults and children with all levels of amputation, including fingers and toes. They work with beneficiaries and their healthcare teams to develop an optimal care plan. Availability of care at an ARC is determined by the ARC's capability, capacity and current demand for services.
- The core specialties for the transdisciplinary care are physical medicine and rehabilitation, physical, occupational and recreational therapy, orthotics and prosthetics, and behavioral health. This core team works closely with other essential providers to include surgery (orthopedics, plastic, and urology), nursing, pain management, dermatology, cardiology, internal medicine, primary care and spiritual support. The team also includes nutrition care, case management, assistive technology and biomedical engineering.
- Strong recreational therapy and adaptive sports programs which are integrated into the rehabilitation plan, to enhance peer and community support.
- A model of holistic care, with integration of patients, families and caregivers, along with a variety of community, academic and government organizations.
- Certified Military Peer Visitor Program. Developed by the Amputee Coalition, this program provides every beneficiary who sustains an amputation the opportunity to meet with, and obtain support from, someone who has managed their own amputation for over five years. Trained peer visitors are certified by the Amputee Coalition.
- Established training programs that keep clinicians up to date on the most relevant technologies, training methods, rehabilitation protocols, and advanced surgical techniques, to optimize outcomes. These training programs include monthly distance-learning educational programs and annual hands-on provider training.
- Embedded researchers and access to state-of-the-art research tools to address gaps in clinical care.
- Partnerships with other federal agencies, industry and academia, which support ongoing research and educational activities, strengthening novel discoveries and state-of-the-science care.
- Robust relationships with civilian and military communities and the Department of Veterans Affairs (VA) for continuity of care and ongoing community reintegration.
- Support to Service members that restores them to their pre-injury level of function, to the greatest extent possible, including the utmost opportunity to return to active duty. This includes firearms training, combat scenario simulation in a three dimensional virtual reality environment, and pre-deployment stress firing testing.

For those coming back for supportive care after their return home:

- On-base, Americans with Disabilities Act (ADA) housing may be available to accommodate an injured Service member's multiple therapy and specialty requirements. Housing may also be available for a non-medical attendant when required.
- Specialty care appointments are easily and quickly accessible to patients, so rehabilitation is not delayed.
- Care or case management is available for all Active Duty Service Members receiving care at the ARC.

ARC MISSION STATEMENTS

There are three recognized DOD ARCs: Walter Reed National Military Medical Center's Military Advanced Training Center, Brooke Army Medical Center's Center for the Intrepid, and Naval Medical Center San Diego's Comprehensive Combat and Complex Casualty Care Program. The primary ARC mission is full restoration of normal human function to those patients who have sustained severe extremity trauma/amputation. With the Extremity Trauma and Amputation Center of Excellence (EACE), they form the DOD Amputation Care Network.

Military Advanced Training Center (MATC) at Walter Reed National Military Medical Center (WRNMMC): MATC is a state-of-the-art facility that provides comprehensive, integrative, and world class rehabilitation care using appropriate advanced technologies and therapies. The program restores function, promotes independence, and facilitates successful re-integration for all beneficiaries with the most complex polytrauma injuries, severe medical conditions, and/or limb loss.

Center for the Intrepid (CFI) at Brooke Army Medical Center (BAMC): The threefold mission of the CFI is to provide rehabilitation for Service members who have sustained amputation or functional limb loss to provide education to DOD professionals on cutting-edge rehabilitation modalities, and to promote research in the fields of orthopedics, prosthetics and physical/occupational rehabilitation, pain management and psychology. CFI is a state-of-the-art facility on BAMC campus with staff, equipment and facility capabilities to provide the full spectrum of amputee rehabilitation, as well as advanced outpatient rehabilitation for limb salvage patients with residual functional loss.

Comprehensive Combat and Complex Casualty Care (C5) Program at Naval Medical Center San Diego (NMCS): C5 is a program of care that manages a severely injured or ill patient from medical evacuation through inpatient care, outpatient rehabilitation, and eventual return to active duty or transition from the military.

MEDICAL DIRECTION

The medical care in the ARCs is under the direction of Physical Medicine and Rehabilitation physicians (Physiatrist) who work closely with orthopedic surgeons, other physicians, physical and occupational therapists, prosthetists and other health care providers to coordinate all care.



PAIN MANAGEMENT

The ARCs are setting the standard for world-class care across many domains and establishing the leading edge in rehabilitative and prosthetic care. The comprehensive scope of care is evident in the advanced outcomes and restoration of optimal function achieved by following a sports medicine based rehabilitation program, with a focus on return to duty or successful transition to civilian life. The imperative for restoration of function is at the heart of this program.

Rehabilitation

The occupational therapy apartment and kitchen offer familiar surroundings for patients to work with occupational therapy staff to learn how to navigate through activities of daily living. This promotes independence, self-respect and progress toward restoring pre-injury levels of function.

Physical therapy incorporates advanced equipment, technology and cutting edge modalities (for example, blood flow restricted strengthening) into comprehensive, individualized treatment programs focused on returning to duty and/or the highest level of physical function.

The Prosthetics and Orthotics (P&O) Service uses advanced technologies for designing, modifying and fabricating highly sophisticated devices to provide unparalleled outcomes for prosthetic and orthotic patients. Advanced prosthetic and orthotic devices are fabricated, fit and adjusted in the P&O Service embedded within the rehabilitation centers. This enables the clinical care specialists (physical therapists, occupational therapists and prosthetists/orthotists) to ensure the best possible fit and utilization of the prosthetic or orthotic devices. Prosthetists/Orthotists work closely with manufacturing industries and have access to a multitude of advanced technology, such as 3D printing, to provide the best custom fit, function, and patient outcomes available in the U.S. today.

Pain Management

It is common to experience multiple pain syndromes after acquired limb loss or limb dysfunction, whether from trauma or underlying disease. Pain sources include bone, nerve, or soft tissues. In addition, individuals with vascular disease may experience ischemic limb pain, and patients with amputation may experience phantom limb or residual limb (stump) pain. Many advances have been made in pain management, which include pharmacological management, integrative medicine approaches (e.g. acupuncture, pain psychology, etc.), minimally invasive procedures (e.g. nerve stimulation, cryotherapy, and neuromodulator), or even surgery. Patients should contact their PM&R provider to help establish a comprehensive pain plan strategy.



THE GAIT LAB

Gait and Biomechanics Labs of the embedded research areas use sophisticated motion analysis equipment (infrared cameras, reflective markers and force plates), to quantify patient movement. The information gained through motion analysis helps providers evaluate or modify physical and occupational therapy programs and prosthetic and orthotic components. The ultimate goal is to facilitate improvement of functional tasks.





OVERHEAD SUPPORT SYSTEM/INDOOR TRACK

The overhead support system enables patients to walk, run, skate or even jump hurdles. The overhead support system also frees the therapist to help patients make corrections to their gait and quickly recover from missteps. Untethered from their therapist, patients make faster progress using the harness, because it gives them a stronger sense of independence and progressive accomplishment. Indoor tracks allow clinicians to evaluate patients' gait and the fit of orthotic or prosthetic devices in a controlled environment.

ASSISTIVE TECHNOLOGY

The ARCs assess patients' interests, strengths and limitations to customize technological solutions for functional limits that can occur following limb loss or trauma. This may be in the form of learning new ways to leverage computers or technology patients already own, or acquiring novel technology to optimize independence. Beyond phones, laptops or computers, assistive technology also includes driving rehabilitation and other areas that require technological solutions to overcoming barriers.

DRIVING REHABILITATION

The DOD ARCs do not provide full driving rehabilitation services. However, each ARC has the ability to assist with referrals and identification of programs that meet individual needs. For Service members, the DOD and Veterans Affairs (VA) partner to provide the driving rehabilitation program. Driving rehabilitation returns Service members who have experienced a medical complication to independent driving. Partnering with the VA allows Service members to receive training and testing. Service members receive training on driving with adaptive equipment in all driving environments, as well as mobility techniques (transferring and managing wheelchairs). Comprehensive services also include counseling regarding benefits, vehicle choice, state licensing procedures, and assisting the Service members with having their personal vehicle modified for any special requirements.

COMPUTER ASSISTED REHABILITATION ENVIRONMENT (CAREN)

The CAREN provides a safe, controlled setting where patients can work on balance, coping with stress, using new prosthetics or orthotics, and skills necessary to achieve functional goals. Using specialized cameras and computers linked to sensors on their bodies, patients interact with a virtual world projected onto a life-sized, curved screen or dome by moving and shifting their weight on a moving platform with an embedded treadmill. More than 70 scenarios enable patients to perform virtual activities without fear of falling. These may include steering a boat through buoys on a lake, replicating running up and down trails in woods, executing a dismounted patrol mission in a true-to-life combat-like environment (including target engagement using Blue-line technology), or walking through city streets.



FIREARMS TRAINING SIMULATOR (FATS)

A wireless weapons simulator room uses Bluetooth technology in over 200 training scenarios. This allows the individual to progress from basic target shooting to complex combat environment activities to improve and sharpen skills. FATS technicians work with patients to ensure the capability for safe and effective handling of a firearm.



TRAUMATIC BRAIN INJURY

ARC rehabilitation starts almost as soon as the patients are released from inpatient status. Patients with diagnosed or suspected TBI are managed in coordination with the local TBI service. This co-management ensures that patients receive the most up-to-date, evidence-based interventions from both clinical services.

RECREATIONAL THERAPY



ARCs recognize the importance of recreational therapy (RT) to well-being and recovery. RT utilizes recreational and leisure activities (individual and team) to enhance overall functioning and independence through community reintegration programming. Recreational programs adapt activities such as sports, yoga, fitness, and dance to improve physical performance and reduce secondary medical complications. Leisure programs provide activities that stimulate cognitive and emotional performance such as art/music therapy, games, guided meditation, community service, and the use of biofeedback for stress management. With the support of the DOD and a dedicated network of local and non-local non-profit organizations, these activities support our patients not only as they transition back into the community, but also help to sustain patients and their families once discharged.



ADAPTIVE SPORTS

Adaptive sports programs attract significant interest among patients undergoing physical rehabilitation. Activities such as rock climbing, kayaking, triathlons, team and individual sports, shooting events, yoga and surfing elicit a familiar, natural response that encourages the individual patient to stay motivated to reach their rehabilitation goals. Many of these activities are located in communities throughout the country, allowing patients to broaden their scope of participation for not only themselves, but their families as well. While not everyone wants to compete, these activities allow sports to be as much a part of patients' lives as any other preinjury activity.



Behavioral Health

Behavioral health teams enable patients to maximize their emotional, mental, spiritual and physical rehabilitation/recovery goals. Clinicians provide comprehensive and holistic psychiatric and psychologic support programs on a continuum from inpatient, through convalescence and rehabilitation. Treatments include individual therapy, support group (pre and post amputation), performance enhancement (focus, self-talk, and motivation), and medication management. Providers specialize in sleep, pain, adaptation, and psychoeducation. Your behavioral medicine practitioner will also serve as treatment facilitator for all your behavioral health needs.

SUPPORT SERVICES

Physical & Emotional Support:

Emotional and psychological healing and well-being are crucial parts of recovery for patients and families.

Support and advice comes in many ways. Chaplains, nurses, case managers, peer visitors, clinical staff, and military staff from the Soldier Recovery Unit, and Marine Wounded Warrior Regiment, all work toward the successful rehabilitation of the patient. Families and caregivers are integral to this process.

Trauma, injury and illness affects each person differently, especially children, which is why the ARC's specialty trained professionals are always available. The ARC staff are there to help.



FAMILY, CAREGIVERS AND NON-MEDICAL ATTENDANTS (NMA)

Rehabilitation has a profound effect on those closest to the patient. From the time of injury through full recovery, the ARCs welcome and encourage families to participate in the patient's care, therapy and reintegration to independent life. Through immersion in the healing process, families learn how to cope with new, often overwhelming responsibilities, and have the opportunity to heal as well.



Referrals to Naval Medical Center San Diego and the Comprehensive Combat and Complex Casualty Care Program (NMCS D/C5):



External inpatient referrals:

Communicate directly with specialty providers or the Trauma/Acute Care Service. Duty Phone for Trauma/Acute Care Consults: (619) 453-7013

Outpatient referrals (post inpatient and before any outpatient rehabilitation has been initiated):

The referring physician places a consult to NMCS D PM&R.

Coordinating Points of Contact:

Division Officer

Office: (619) 532-6044

Fax: (619) 532-9023

Patient Administration: (619) 532-8319

General information for C5: (619) 531-1404

Referrals to Brooke Army Medical Center and the Center for the Intrepid (BAMC/CFI):



The referring physician places a consult to the BAMC CFI program.

Patient Administration: (210) 916-2606 (Admissions and Dispositions)

Nurse Case Manager: (210) 916-5463

General Information for SAMMC: <https://ibamc.med.ds.osd.mil/SiteDirectory/drm/cfi/default.aspx>

Referrals to Walter Reed National Military Medical Center and the Military Advanced Training Center (WRNMMC/MATC)



For all referrals we recommend that coordinators/providers contact the Rehabilitation Care Coordinators/Nurse Case Managers as a courtesy notification that an amputation care patient is inbound at 301-400-1482 or 301-295-8958.

For additional information or assistance please contact-WRNMMC Referral Management at (301) 400-0404, or VA Sharing Office (301) 319-4630/ (301) 319-4631, dha.bethesda.ha-support.list.wrnmm-epro-bldg62@mail.mil.

External inpatient to inpatient referrals: Coordinate directly with specialty providers or the Trauma Service. To facilitate the process, call the WRNMMC Patient First referral center at 301-319-8123, and inform them that this is a "Provider One Call" request. They will collect all necessary information and contact the appropriate service that will be accepting the patient, to facilitate a provider hand-off.

IMPORTANT NUMBERS

Military Advanced Training Center (MATC) (WRNMMC)

Rehabilitation Nurse Care Coordinators.....	(301) 295-8958/ (301) 400-1482
Physical Medicine & Rehabilitation.....	(301) 295-5160
Physical Therapy.....	(301) 295-4880/1
Occupational Therapy.....	(301) 295-4866
Main Hospital.....	(301) 295-4611
Warrior Clinic.....	(301) 400-1012
Warrior Family Coordination Cell (WFCC).....	(301) 400-0208

Service Liaisons Numbers

WFCC (Hospital).....	(301) 219-1710
Army.....	(301) 547-1449
Air Force.....	(301) 547-1169
Marine Corps.....	(301) 515-6932
Navy/Coast Guard.....	(301) 213-6972
NSA Bethesda.....	(301) 547-1136

Center for the Intrepid (CFI) (BAMC)

Director, CFI.....	(210) 916-7697
Program Manager.....	(210) 916-4108
Admin Assistant.....	(210) 916-3303
Secretary.....	(210) 916-6997
Occupational Therapy Service.....	(210) 916-6400
Physical Therapy Service.....	(210) 916-6300
Prosthetic/Orthotics Service.....	(210) 916-8718
Recreational Therapy Service.....	(210) 916-6892
Behavioral Health.....	(210) 916-6100

Other Important Contacts at BAMC

Medical Board Counselors

(210) 916-1689 / (210) 916-3689

JAG Brooke Army Medical Center: (210) 916-8585

Ft. Sam Houston: (210) 221-2353 - file claims for lost baggage

Marine Liaison Unit (210) 223-1551 ext. 354

Patient Representatives complaints, compliments, notary (210) 916-2330 / (210) 539-8935

TRICARE Service Center

(210) 916-9900
(800) 444-5445

BAMC Guest House

(210) 357-2705 ext. 2000

Fisher House - BAMC

(210) 916-6000 ext. 2000

Comprehensive Combat and Complex Casualty Care (C5) (NMCS D)

C5 Division Officer.....	(619) 532-6044
C5 front desk.....	(619) 531-1404
Patient Administration.....	(619) 532-8318
Occupational Therapy.....	(619) 532-7100/7135
C5 Physical Therapy.....	(619) 532-7100