



## Defense and Veterans Brain Injury Center

### Background

Congress established **Defense and Veterans Brain Injury Center (DVBIC)** in 1992 to integrate specialized traumatic brain injury care (TBI), research and education across the Departments of Defense and Veterans Affairs (VA). A center of **Defense Centers of Excellence for Psychological Health and Traumatic Brain Injury (DCoE)**, DVBIC is composed of a network of 17 sites located at military treatment facilities, VA hospitals and two neuro-rehabilitation and community re-integration programs.

### Mission

DVBIC assists the Department of Defense and VA in optimizing the care of service members and veterans who have sustained a TBI in deployed and non-deployed settings through state-of-the-art clinical care, innovative research, care coordination, educational programs, and tools and resources. For more information, visit [www.DVBIC.org](http://www.DVBIC.org).

Any service member or veteran with a TBI may use DVBIC's services. DVBIC accepts self-referrals as well as referrals from family members and health care providers. The DVBIC regional sites can be found on an [interactive map](#) on the website. Contact DVBIC at [info@DVBIC.org](mailto:info@DVBIC.org) or **800-870-9244**.

### Clinical Care

DVBIC clinical and research subject matter experts coordinate with the Department of Defense and VA, federal agencies and academia to develop clinical practice guidelines and evidence-based approaches, focusing on the continuum of care from point of injury through return to duty, work or community.

DVBIC's network of interdisciplinary health care providers ensures that TBI patients receive appropriate screening, treatment and follow-up care. Utilizing the latest technology and evidence-based clinical standards, DVBIC takes a comprehensive approach by addressing patients' health, abilities and aspirations.

DVBIC's clinical care services include:

- **Regional Care Coordination** — Identifies, tracks and follows up with service members and veterans who were injured while serving in support of Operation Enduring Freedom/Operation Iraqi Freedom and are symptomatic subsequent to a diagnosis of TBI. Families and caregivers are also provided support.

Patients are assessed to determine clinical and/or non-clinical services they or their families may need. Regional Care Coordination connects the patient or family members with appropriate resources within the Defense Department, VA or civilian health care systems. The assessment covers not only physical and cognitive problems related to the TBI, but also substance use, relationship problems, readjustment after deployment and other areas. This program is a primary TBI resource to other care coordination systems within the Defense Department and VA, including Warrior Transition Units, each of the services' Wounded Warrior programs, the Defense Department Recovery Care Coordination Program and the VA Federal Recovery Care Program.

- **TBI.consult@us.army.mil** — Provides expert consultation for health care providers in-theater. Specialists advise providers on TBI screening, symptom management, return-to-duty considerations, medication and other areas where neurological and psychological health concerns overlap.
- **Neurocognitive Assessment Tool (NCAT) Office** — Oversees the administration of cognitive performance baselines to compare with cognitive test scores obtained after an injury, which enhances assessment of service members following a concussion. As of September 30, 2011, NCAT tests have been administered to more than 1 million service members, and there is evidence of increased use in-theater following an injury. The Web-based implementation of NCAT was launched in the first half of 2011. DVBIC is the office of responsibility for this program.

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[www.DVBIC.org](http://www.DVBIC.org)

## Education

DVBIC offers educational programs, materials and training for health care providers, military line leaders, service members, veterans, families and civilian communities on awareness, prevention, diagnosis, treatment and management of TBI.

DVBIC's program of education includes:

- **Multimedia Education** — From January to November 2011, DVBIC disseminated more than 880,000 educational products, which are available by request at [www.DVBIC.org](http://www.DVBIC.org).
- **Annual Defense and Veterans TBI Summit and Annual Blast Injury Conference** — A forum that explores emerging science, challenges and advances in TBI care.
- **Traumatic Brain Injury: A Guide for Caregivers of Service Members and Veterans** — A kit comprised of four modules and a caregiver companion organizer to assist family caregivers of service members and veterans who have sustained a moderate, severe or penetrating TBI. The guides are available in print and [online](#). To request a copy, e-mail [fcg@dvbic.org](mailto:fcg@dvbic.org).
- **BrainLine.org** and **BrainLineMilitary.org** — Multimedia websites offering information and resources on preventing, treating and living with TBI, supported by DVBIC and produced by WETA-TV-FM. Website content includes multimedia resources, such as videos, social media, a 24-7 online community, and an online TBI course for civilian providers. Both websites are available as mobile sites, accessible by any smartphone, and are uniquely poised to serve those in minority, underserved and rural communities.
- **TBI Resources** — DVBIC has created brochures to help answer basic questions and to explain the treatment and recovery process from mild TBI, both at the time of injury and one month afterwards. DVBIC also produced "Signs & Symptoms" fact sheets — now available in eight languages for NATO troops — for those who have sustained a mild TBI or suspect they might have had one. DVBIC also provides TBI management tip sheets to give to patients who are experiencing lingering symptoms. These tip sheets cover the following topics: headache and neck pain, healthy sleep, head injury and dizziness, ways to improve memory, and mood changes.
- **Provider Resources** — DVBIC neuroscientists and researchers have helped to establish clinical standards and guidelines to evaluate, treat and care for TBI patients. The center produces an internation-

ally used TBI screening tool called the Military Acute Concussion Evaluation (MACE) to help providers identify service members who may need further evaluation for mild TBI. DVBIC also created an earlier resource, the **Three Question TBI Screening Tool**.

DVBIC collaborates with TBI partners to create and distribute products, such as the **Mild Traumatic Brain Injury Pocket Guide**, a quick reference guide that includes clinical guidance in assessing and treating service members and veterans who have sustained a mild TBI; the Co-Occurring Conditions Toolkit: Mild Traumatic Brain Injury and Psychological Health; Clinical Practice Guidelines for Concussion Management in Deployed Settings; and Clinical Guidance for Evaluation and Management of Concussion/mild TBI — Acute/Subacute (for use in the Continental U.S.). An online course and resources for civilian providers are available on [BrainLineMilitary.org](http://BrainLineMilitary.org).

## Research

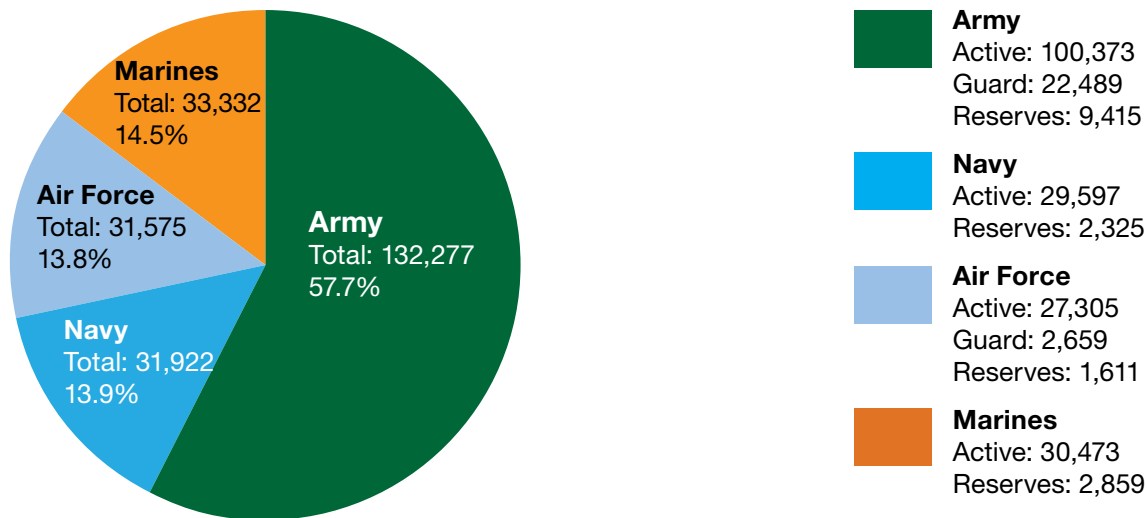
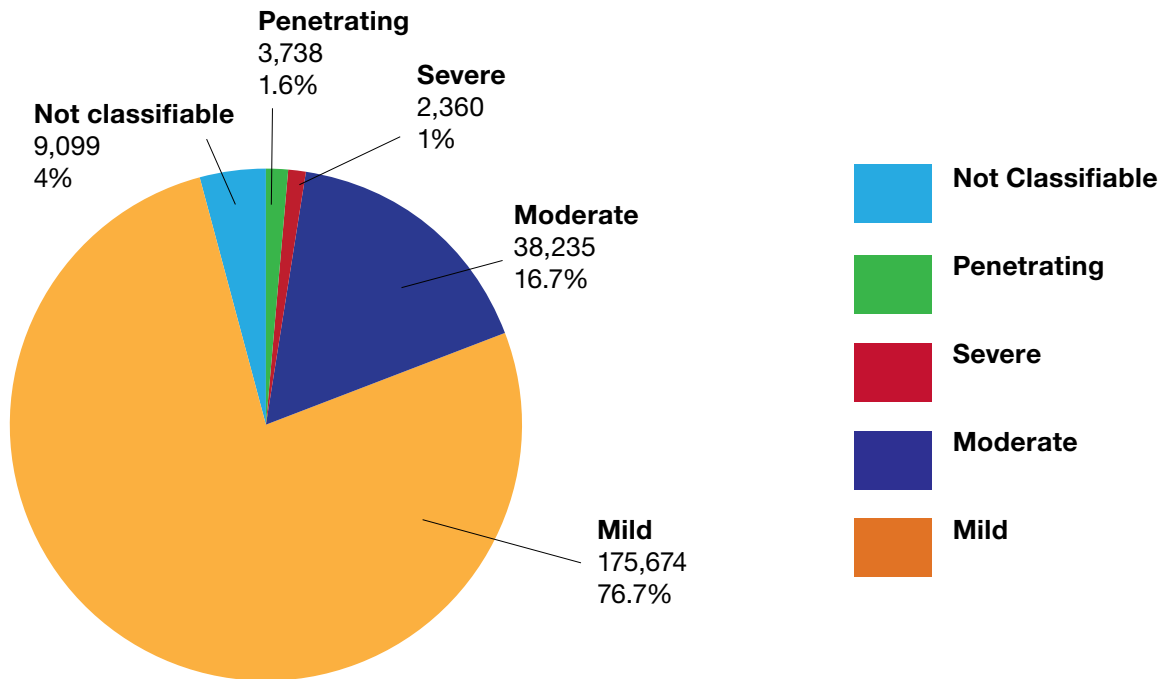
Researchers collaborate across DVBIC's multi-site network and with other organizations to better understand, assess, prevent and treat TBI. Topics include safety and prevention of TBI in deployed and non-deployed settings, effects of TBI on the brain, usefulness of medications and treatment interventions, TBI imaging technologies and post-TBI return to duty/work/community.

DVBIC's research portfolio includes:

- **15-Year Longitudinal Study of TBI** — Congressionally mandated research examining the long-term effects and outcomes of TBI among service members who have served in Iraq or Afghanistan.
- **Study of Cognitive Rehabilitation Effectiveness for Mild TBI** — Congressionally mandated randomized, controlled trial to investigate the efficacy of cognitive rehabilitation therapy for mild TBI in order to inform of the appropriateness for coverage of this treatment under tri-service care.
- **A Psychometric Comparison of Brief Computerized Neuropsychological Assessment Tools (NCATs)** — Independent study comparing four NCATs in their ability to detect cognitive deficits after brain injury.
- **ProTECT III, Progesterone for the Treatment of TBI** — A multicenter clinical trial to determine the efficacy of progesterone for improving outcomes of patients with moderate to severe TBI.

# Department of Defense Numbers for Traumatic Brain Injury 2000 — 2011\*

Total: 229,106



- Army**  
Active: 100,373  
Guard: 22,489  
Reserves: 9,415
- Navy**  
Active: 29,597  
Reserves: 2,325
- Air Force**  
Active: 27,305  
Guard: 2,659  
Reserves: 1,611
- Marines**  
Active: 30,473  
Reserves: 2,859

\*Incident cases for calendar year 2011 include TBI cases for the first, second and third quarters only.

## TBI Definitions

**Concussion/mild TBI:** A confused or disoriented state lasting 24 hours or less; loss of consciousness for up to 30 minutes; memory loss lasting less than 24 hours.

**Moderate TBI:** A confused or disoriented state that lasts more than 24 hours; loss of consciousness for more than 30

minutes, but less than 24 hours; memory loss lasting greater than 24 hours but less than seven days.

**Severe TBI:** A confused or disoriented state that lasts more than 24 hours; loss of consciousness for more than 24 hours; memory loss for seven days or more.

**Penetrating TBI or open head injury:** The outer layer of the brain is penetrated by a foreign object.