**Resources**

Family Helpline: (800) 444-6443

eLibrary

**Advocacy**

[2010 Brief - Michigan TBI Act](http://www.biami.org/_literature_64037/2010_Brief_-_Michigan_TBI_Act) (164 KB)

[2010 Brief - Motorcycle Helmet Repeal](http://www.biami.org/_literature_64040/2010_Brief_-_Motorcycle_Helmet_Repeal) (168 KB)

[2010 Brief - Sports Concussion](http://www.biami.org/_literature_64039/2010_Brief_-_Sports_Concussion) (1214 KB)

[MI Supreme Court Decisions](http://www.biami.org/_literature_39696/MI_Supreme_Court_Decisions) (116 KB)

[Victimization of People with TBI](http://www.biami.org/_literature_41781/Victimization_of_People_with_TBI) (749 KB)

[American with Disabilities Act](http://www.ada.gov/2010_regs.htm) Information and Technical Assistance

**BIAMI President’s Statement on Opposition to Allowing Heavier Trucks on Michigan Roads**

(link to copy below)

The Brain Injury Association of Michigan is dedicated to brain injury prevention, advocacy, and support. As part of our mission, we work to identify policies that could have an impact on injury rates. To that point, recent proposals that would allow for increased truck size and weight represent a significant threat to public safety. Heavier and longer semi-trucks have been found to have higher crash rates. In 2013, in fact, the CDC found traumatic brain injuries stemming from motor vehicle accidents to be responsible for 392,000 emergency room visits and 9,500 deaths. Putting more dangerous vehicles on the road, including 91,000 pound trucks and 33’ double trailers, represents an enormous setback in our efforts to reduce these rates.

In 2016, the United States Department of Transportation completed the MAP-21 Comprehensive Truck Size and Weight Limits Study, ultimately recommending no change to current law. Their findings on crash rates were particularly disturbing. In limited state testing, heavier trucks were found to have crash rates ranging from 47-400% higher than traditional 80,000 pound trucks. This was due to increased stopping distance and lessened ability to make evasive maneuvers. When involved in a crash, the additional weight leads to substantially increased damage.

Similarly, a 2000 USDOT study found multi-trailer configurations to have an 11% higher fatal crash rate. Increasing the length of double trailers to a combined 66 feet, over 13 feet longer than a traditional semi-truck, creates enormous blind spots, increased rollover risk, and resultantly, more severe accidents.

The reduction of traumatic brain injury is our primary objective, and vehicle accidents represent one of the most significant causes. Increasing truck size and weight clearly poses a severe risk to motorists and ultimately a greater financial burden on the State. We join the Brain Injury Association of America in strongly urging your opposition to proposals that would allow for 91,000 pound semi-trucks and longer double trailers.

Thomas F. Constand

**BIAMI No-Fault Op-Ed**

**(link to copy below)**

***Michigan Auto No Fault: Fix the Flaws, Keep the Coverage***

Now that Michigan’s Auto No-Fault (ANF) system is under attack by the insurance industry, it’s easy to forget just what an extraordinary legislative accomplishment this was in 1972. Enacted one year later, it eliminated the tort system’s high legal fees (30% to 50% of claims), reduced years of legal delay, and covered the catastrophically injured regardless of who was at fault.

Our ANF system still works as intended, but its cost to Michigan policy holders is making the system less attractive. It’s even worse for Detroiters, who on average pay twice the premium cost as suburbanites. No wonder people are rightly demanding cost reductions.

But instead of eliminating no-fault, or capping benefits at a level that wouldn’t cover a single month of hospitalization -- let alone a lifetime of care for a catastrophically injured person -- we should fix the flaws. That means:

1. **Make the yearly no-fault fee calculation transparent.** That fee is currently set at $160 -- $170 as of June -- by the Michigan Catastrophic Claims Association. The MCCA is comprised entirely of insurance executives, with one exception: Michigan’s Director of the Department of Insurance and Financial Services. No individual consumer or consumer group is represented. Worse, although a public body, the MCCA refuses to divulge how it calculates the annual fee given their $15 billion+ pool of available funds. It’s time to open the doors, MCCA.
2. **Eliminate ANF fraud.** Some consumers try to game the system by “staging” accidents or cheating on claims. They should be brought to justice. In many cases, though, unscrupulous lawyers encourage illegal behavior by “ambulance chasing,” sending patients to captive healthcare providers to jack up charges, and stationing “agents” at emergency rooms and in hospitals to solicit clients and then pressure them to claim exaggerated or non-existent injuries. These behaviors need to be eliminated, as should the behavior of insurance companies which deny or delay paying legitimate claims. Eliminating “bad faith” behavior on every side saves costly litigation and gets the right compensation to the right parties at the right time.
3. **Equalize the medical cost structure for claims.** The insurance industry says doctors and hospitals charge up to four times for ANF patient services what they accept for Medicare or Worker’s Comp treatments, but hospitals structure pricing on volume and negotiated discounts. In other words, the solution isn’t to engage in a “he said, she said” debate, but bring both parties to the table to agree on a reasonable rate schedule. This would not only help avoid litigation, but ensure prompt payment and financial stability – especially important for smaller providers.
4. **Stop the redlining in Detroit.** Redlining is illegal in most industries but it’s alive and well for auto insurance companies in Detroit – which fix rates based not on a driver’s actual record, but where he or she lives. When drivers are judged by *how they drive* instead of *where they live*, their auto insurance will reflect reality – instead of insurance price gouging.
5. **Look at other high-cost parts of auto policies**. Personal Injury Protection (PIP) is a big component of an auto policy’s cost, but collision insurance is almost 30 percent of a typical premium and it costs more in Michigan than anywhere else in the country! That’s why it makes good sense that collision should be part of any discussion on lowering auto insurance premiums.

Today, Michigan has the nation’s very best network of brain and spinal cord injury doctors, hospitals, therapists, rehabilitation facilities, and case managers. The lives of tens of thousands of survivors are owed to that network, and it was possible only because of auto no-fault. The sensible solution for Michigan consumers is to keep what’s best about no-fault while eliminating its costly flaws.

**Tom Constand**

**President and CEO**

**The Brain Injury Association of Michigan**

**BIAMI Statement on Distracted Driving to Michigan House Traffic and Infrastructure Committee**

**(link to copy below)**

Tom Constand Testimony

Michigan House of Representatives

Traffic and Infrastructure Committee

May 30, 2017

Good morning, Mr. Chairman and distinguished committee members. My name is Tom Constand, president of the brain injury association of Michigan, and I’m pleased to be representing the BIAMI membership and our brain injury survivor constituents in support of house bill 4466 introduced by Representative Howrylak.

While the motto of the Brain Injury Association of Michigan is to provide help, hope, and healing to survivors, particularly of traumatic brain injury, prevention is fundamental to our mission. Since auto accidents account for 30 percent of all brain injuries in Michigan – second only to falls – efforts to reduce the number and severity of such accidents deserve both our support and our gratitude.

Evidence suggests that the recent uptick in auto accidents in Michigan is due in large part to distracted driving. In fact, the national safety council has found that texting while driving is six times more likely to cause an accident than driving drunk. As I believe the committee is aware, texting while driving is particularly endemic to our youngest, least experienced, and in many ways most vulnerable drivers, the teens in our communities. According to the AAA, 94 percent of this cohort acknowledges the danger of texting while driving yet 35 percent admit to doing it anyway. One result is that of those teens involved in fatal accidents, 21 percent were distracted by their cell phones.

While the distractions of cell phones and texting while driving affect teenage drivers in particular, the problem is truly a societal one and thus requires a societal response. House bill 4466 does exactly that by establishing consequential penalties for distracted driving, penalties we believe will give pause to teens as well as adults and, as a result, save the lives of countless Michiganders.

I wholeheartedly urge this committee to support house bill 4466, which has received full support of the Brain Injury Association, our membership, and the 200,000 Michiganders living with brain injury.

Thank you for your time and courtesy.

**BIAMI Publications**

[2010 Brief - Michigan TBI Act](http://www.biami.org/_literature_64037/2010_Brief_-_Michigan_TBI_Act) (164 KB)

[2010 Brief - Motorcycle Helmet Repeal](http://www.biami.org/_literature_64040/2010_Brief_-_Motorcycle_Helmet_Repeal) (168 KB)

[2010 Brief - Sports Concussion](http://www.biami.org/_literature_64039/2010_Brief_-_Sports_Concussion) (1214 KB)

[Brain Injury Brochure](http://www.biami.org/_literature_79297/Brain_Injury_Brochure) (353 KB)

[Coma Brochure](http://www.biami.org/_literature_41807/Coma_Brochure) (348 KB)

**Education**

[Becoming a Better Advocate Webinar 022812](http://www.biami.org/_literature_101216/Becoming_a_Better_Advocate_Webinar_022812) (981 KB)

[Coalition Protecting Auto No-Fault](http://www.biami.org/_literature_99088/Coalition_Protecting_Auto_No-Fault) (2515 KB)

[BIAMI Policy on Individuals with Impaired Consciousness](http://www.biami.org/_literature_41813/BIAMI_Policy_on_Individuals_with_Impaired_Consciousness) (65 KB)

[TBI Recovery Guide](http://www.biami.org/_literature_41822/TBI_Recovery_Guide) (215 KB)

**Prevention**

[Preventing TBI in Older Adults](http://www.biami.org/_literature_79298/Preventing_TBI_in_Older_Adults) (159 KB)

[TBI School Letter](http://www.biami.org/_literature_41812/TBI_School_Letter) (142 KB)

**Concussion prevention tools and technologies**

While the BIAMI is unable to certify the effectiveness of the preventive tools and technologies listed below, all currently appear to show promise in reducing concussion incidence and/or severity. Interested readers should check with their neurologists or certified athletic trainers for further information and recommendations.

Pre-season baseline testing

<https://www.cdc.gov/headsup/basics/baseline_testing.html>

Diagnostic biomarkers

<https://www.futuremedicine.com/doi/full/10.2217/cnc-2015-0002>

Helmet technology

<https://www.forbes.com/.../nfl-cte-football-concussions-injuries-helmet-vicis-zero1-su>*...*

Mouthguard technology

<https://www.digitaltrends.com/cool-tech/fit-guard-mouthpiece-ces-2016/>

Neck strengthening for concussion avoidance and severity reduction

<https://www.usatoday.com/story/sports/college/2015/01/09/neck-strength-importance-concussion-prevention/21526633/>

Vision training

<https://www.dynavisioninternational.com/news/need-for-visiontraining>

Neck collars

<http://gizmodo.com/this-woodpecker-inspired-collar-could-protect-athletes-1782249329>

**Survivors & Family Resources**

[Michigan Resource Guide](http://www.biami.org/_literature_41501/Michigan_Resource_Guide) (620 KB)

[TBI Recovery Guide - Summary Fact Sheet](http://www.biami.org/_literature_123498/TBI_Recovery_Guide_-_Summary_Fact_Sheet) (198 KB)

[Resources for Persons with Brain Injury and Their Families](http://www.biami.org/_literature_41811/Resources_for_Persons_with_Brain_Injury_and_Their_Families) (78 KB)

[TBI Recovery Guide](http://www.biami.org/_literature_41822/TBI_Recovery_Guide) (215 KB)

[Working with Persons with TBI - Arabic](http://www.biami.org/_literature_41810/Working_with_Persons_with_TBI_-_Arabic) (856 KB)

[Working with Persons with TBI - English Version](http://www.biami.org/_literature_41808/Working_with_Persons_with_TBI_-_English_Version) (122 KB)

[Working with Persons with TBI - Spanish Version](http://www.biami.org/_literature_41809/Working_with_Persons_with_TBI_-_Spanish_Version) (28 KB)

**National Data and Statistical Center Traumatic Brain Injury Model Systems** **National Database: 2017 Profile of People within the Traumatic Brain Injury Model Systems** *(PDF available via browser search)*

Model Systems Knowledge Translation Center (excellent source of information, studies, research, and other links for both brain injury and spinal cord injury)

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

Traumatic Brain Injury-Related Emergency Department Visits, Hospitalizations, and Deaths – United States, 2007 and 2013

[**https://www.cdc.gov/mmwr/volumes/66/ss/pdfs/ss6609.pdf**](https://www.cdc.gov/mmwr/volumes/66/ss/pdfs/ss6609.pdf)

Consensus Statement on Concussion in Sport – the 5th International Conference on Concussion in Sport held in Berlin, October 2016

[**http://bjsn.bmj.com**](http://bjsn.bmj.com)

**Overview of NICHD Research Related to TBI**

**Overview of NICHD Research Related to TBI**

Largely through its [National Center for Medical Rehabilitation Research (NCMRR)](https://www.nichd.nih.gov/about/org/ncmrr/Pages/overview.aspx), the NICHD has long supported research on the full range of TBI—from mild injuries and concussions to severe TBI that causes significant disability. The Center, through programs including the [TBI and Stroke Rehabilitation Program](https://www.nichd.nih.gov/about/org/ncmrr/tsr/pages/index.aspx), supports a range of basic research to understand the cellular, molecular, physiological, and biomechanical processes associated with the full scope of TBI severity. These include studies on strategies that promote neural regeneration, recovery, plasticity, adaptation, and recovery of function after TBI.

The NICHD TBI research includes investigations that could lead to new and better ways of detecting and treating concussions. Some examples include:

* Basic research, including studies of how certain proteins and enzymes are involved in brain injury and how certain genes may play a role in neural recovery
* Process and outcomes research, including studies on the progression of and recovery from brain injury over time and of ways to mediate long-term functional outcomes
* Pharmacological research, including studies of individual and combined therapies that might enhance or speed recovery and interventions that might improve the physiological and behavioral side effects of TBI
* Behavioral and social science research, including studies of how individuals, families, and communities adapt to injuries and participate in recovery
* Secondary condition research, including studies of the relative risk and protective factors for depression and other negative outcomes of TBI
* Focused research in unique or at-risk groups, including studies to:
	+ Determine effective and safe drug therapies and dosages for treating children with TBI and mild TBI
	+ Understand the best way to adapt TBI treatments for veterans and members of the military to home settings
	+ Identify the best methods and technologies for measuring head impacts in youth and adult sports players and bringing these technologies to the market

Projects within the NICHD's dynamic scientific portfolio on TBI have led to significant advances related to concussions, including several specific to concussions in football and sports

**ACBIS:** American Academy for the Certification

of Brain Injury Specialists

**ACBIS Training Overview**

The Academy of Certified Brain Injury Specialists (ACBIS) offers a voluntary national certification program for both direct care staff and professionals working in brain injury services. ACBIS provides the opportunity to learn important information about brain injury, to demonstrate learning in a written examination, and to earn a nationally recognized credential.

ACBIS offers three certification options representing distinct levels of experience and supervisory skills: Certified Brain Injury Specialist (CBIS), Certified Brain Injury Specialist Trainer (CBIST), and Provisional Certified Brain Injury Specialist (PCBIS).

The Academy requires demonstration of learning, through its examination, in the following domains:

* TBI and diagnostic imaging
* Medical, physical, cognitive, neurobehavioral, and psychosocial consequences of injury
* TBI in pediatrics and adolescents, as well as aging with a brain injury
* Concussions and mTBI, as well as disorders of consciousness
* Rehabilitation philosophy, outcome measurement, and care management
* Effect of injuries on families
* Cultural, gender, and sexuality issues
* Military populations
* Neuropsychology
* Participation and return to work

Certification is not restricted to any one profession or discipline. Rather, it is intended for anyone who delivers services specific to brain injury. [Please read Certification Disclaimer](http://www.biausa.org/acbis/legal-notices).

The ACBIS Alliance provides public recognition to a brain injury services provider or designated facility that has achieved the benchmark of having 20% of its staff who are eligible for national certification certified as CBIS or CBIST. The list of Alliance members can be found [here](http://www.biausa.org/acbis/acbis-alliance).

[BIAMIs CBIS Information Form](http://www.biami.org/_literature_79325/BIAMIs_CBIS_Information_Form) (83 KB)

[CBIS Group Application Form Instructions](http://www.biami.org/_literature_79324/CBIS_Group_Application_Form_Instructions) (73 KB)

[ACBIS Participant Guide](http://www.biami.org/_literature_41785/ACBIS_Participant_Guide) (678 KB)

[CBIS Webinar Handouts - Chapter 3](http://www.biami.org/_literature_115662/CBIS_Webinar_Handouts_-_Chapter_3) (651 KB)

[CBIS Webinar Handouts - Chapter 4](http://www.biami.org/_literature_115663/CBIS_Webinar_Handouts_-_Chapter_4) (911 KB)

[CBIS Webinar Handouts - Chapters 1 and 8](http://www.biami.org/_literature_115659/CBIS_Webinar_Handouts_-_Chapters_1_and_8) (669 KB)

[CBIS Webinar Handouts - Chapters 2 and 5](http://www.biami.org/_literature_115661/CBIS_Webinar_Handouts_-_Chapters_2_and_5) (751 KB)

[CBIS Webinar Handouts - Chapters 6 and 7](http://www.biami.org/_literature_115664/CBIS_Webinar_Handouts_-_Chapters_6_and_7) (747 KB)

[Demographic Update Form](http://www.biami.org/_literature_41599/Demographic_Update_Form) (41 KB)

**Military and Veterans Brain Injury Resources**

The nature of recent wars and conflicts, particularly in Afghanistan and Iraq, have resulted in tens of thousands of brain injuries to US servicemen and women and, frequently, the added complications of post- traumatic stress disorder (PTSD). These TBI survivors deserve special recognition and support, not only for the contribution of their armed forces service, but, quite often, for the lack of acknowledgement, treatment, and post-injury services initially offered by the military and occasional lack of respect and sympathy from the public. Today, the Department of Defense has become both active and proactive in diagnosing and treating TBI and PTSD, although support services still tend to lag.

The BIAMI salutes all our veterans and active servicemen and women, and hopes the following resources may be useful to them and their families in better understanding and better supporting their efforts for the highest quality of life possible.

Excellent informational, medical, and supportive information from Brainline

<https://www.brainline.org/military-veterans/military-brain-injury>

The Department of Defense and other official governmental sources offer a full menu of TBI and PTSD resources for veterans and others

<http://dvbic.dcoe.mil/tbi-military>

**Department of Defense (DoD) Worldwide Numbers for TBI**

**DoD Worldwide Numbers for TBI**

DVBIC is the Defense Department’s office of responsibility for tracking traumatic brain injury (TBI) data in the U.S. military. On this page you’ll find annual and quarterly reports that provide data on the number of active-duty service members — anywhere U.S. forces are located — with a first-time TBI diagnosis since 2000.

Service members can sustain a TBI during day-to-day activities, such as while playing sports or participating in recreational events, military training and military deployment. The majority of traumatic brain injuries sustained by members of the U.S. Armed Forces are classified as mild TBI, also known as concussion. Most service members who sustain a mild TBI return to full duty within seven to 10 days through rest and the [progressive return to activity process](http://dvbic.dcoe.mil/material/progressive-return-activity-pcm-cr), in which patients gradually return to normal activity using a standardized, staged-approach. Further treatment is available if symptoms persist after the recommended rest period. Review our [clinical resources](http://dvbic.dcoe.mil/resources/clinical-tools) for more information.

**Number of Service Members Diagnosed with Traumatic Brain Injury**

| **Year** | **Number of Service Members Diagnosed** | **Report** |
| --- | --- | --- |
| **Total** | 361,092 | [Total DoD TBI Worldwide Numbers, PDF](http://dvbic.dcoe.mil/files/tbi-numbers/DoD-TBI-Worldwide-Totals_2000-2016_Feb-17-2017_v1.0_2017-04-06.pdf) [2.81 MB] |
| 2016 | 17,672 | [2016 DoD TBI Worldwide Numbers, PDF](http://dvbic.dcoe.mil/files/tbi-numbers/DoD-TBI-Worldwide-Totals_2016_Feb-17-2017_v1.0_2017-04-06.pdf) [1.38 MB] |
| 2015 | 22,687 | [2015 DoD TBI Worldwide Numbers, PDF](http://dvbic.dcoe.mil/files/tbi-numbers/DoD-TBI-Worldwide-Totals_2015_Feb-17-2017_v1.0_2017-04-06.pdf) [3.47 MB] |
| 2014 | 25,061 | [2014 DoD TBI Worldwide Numbers, PDF](http://dvbic.dcoe.mil/files/tbi-numbers/DoD-TBI-Worldwide-Totals_2014_Feb-17-2017_v1.0_2017-04-06.pdf) [2.86 MB] |
| 2013 | 27,450 | [2013 DoD TBI Worldwide Numbers, PDF](http://dvbic.dcoe.mil/files/tbi-numbers/DoD-TBI-Worldwide-Totals_2013_Feb-17-2017_v1.0_2017-04-06.pdf) [2.87 MB] |
| 2012 | 30,641 | [2012 DoD TBI Worldwide Numbers, PDF](http://dvbic.dcoe.mil/files/tbi-numbers/DoD-TBI-Worldwide-Totals_2012_Feb-17-2017_v1.0_2017-04-06.pdf) [2.8 MB] |
| 2011 | 32,829 | [2011 DoD TBI Worldwide Numbers, PDF](http://dvbic.dcoe.mil/files/tbi-numbers/DoD_TBI-Worldwide-Totals_2011_Feb-17-2017_v1.0_2017-04-06.pdf) [2.78 MB] |
| 2010 | 29,350 | [2010 DoD TBI Worldwide Numbers, PDF](http://dvbic.dcoe.mil/files/tbi-numbers/DoD-TBI-Worldwide-Totals_2010_Feb-17-2017_v1.0_2017-04-06.pdf) [2.98 MB] |
| 2009 | 28,893 | [2009 DoD TBI Worldwide Numbers, PDF](http://dvbic.dcoe.mil/files/tbi-numbers/DoD-TBI-Worldwide-Totals_2009_Feb-17-2017_v1.0_2017-04-06.pdf) [2.14 MB] |
| 2008 | 28,470 | [2008 DoD TBI Worldwide Numbers, PDF](http://dvbic.dcoe.mil/files/tbi-numbers/DoD-TBI-Worldwide-Totals_2008_Feb-17-2017_v1.0_2017-04-06.pdf) [2.79 MB] |
| 2007 | 23,221 | [2007 DoD TBI Worldwide Numbers, PDF](http://dvbic.dcoe.mil/files/tbi-numbers/DoD-TBI-Worldwide-Totals_2007_Feb-17-2017_v1.0_2017-04-06.pdf) [3.37 MB] |
| 2006 | 17,022 | [2006 DoD TBI Worldwide Numbers, PDF](http://dvbic.dcoe.mil/files/tbi-numbers/DoD-TBI-Worldwide-Totals_2006_Feb-17-2017_v1.0_2017-04-06.pdf) [2.83 MB] |
| 2005 | 15,528 | [2005 DoD TBI Worldwide Numbers, PDF](http://dvbic.dcoe.mil/files/tbi-numbers/DoD-TBI-Worldwide-Totals_2005_Feb-17-2017_v1.0_2017-04-06.pdf) [3.45 MB] |
| 2004 | 14,468 | [2004 DoD TBI Worldwide Numbers, PDF](http://dvbic.dcoe.mil/files/tbi-numbers/DoD-TBI-Worldwide-Totals_2004_Feb-17-2017_v1.0_2017-04-06.pdf) [3 MB] |
| 2003 | 12,815 | [2003 DoD TBI Worldwide Numbers, PDF](http://dvbic.dcoe.mil/files/tbi-numbers/DoD-TBI-Worldwide-Totals_2003_Feb-17-2017_v1.0_2017-04-06.pdf) [3.09 MB] |
| 2002 | 12,407 | [2002 DoD TBI Worldwide Numbers, PDF](http://dvbic.dcoe.mil/files/tbi-numbers/DoD-TBI-Worldwide-Totals_2002_Feb-17-2017_v1.0_2017-04-06.pdf) [3.15 MB] |
| 2001 | 11,619 | [2001 DoD TBI Worldwide Numbers, PDF](http://dvbic.dcoe.mil/files/tbi-numbers/DoD-TBI-Worldwide-Totals_2001_Feb-17-2017_v1.0_2017-04-06.pdf) [2.11 MB] |
| 2000 | 10,959 | [2000 DoD TBI Worldwide Numbers, PDF](http://dvbic.dcoe.mil/files/tbi-numbers/DoD-TBI-Worldwide-Totals_2000_Feb-17-2017_v1.0_2017-04-06.pdf) [2.71 MB] |

**Annual Totals at a Glance**



Department of Defense Numbers for Traumatic Brain Injury Worldwide - Number of Service Members Diagnosed: This graph depicts the number of service members diagnosed every year since 2000, and corresponds with the number of service members diagnosed with the traumatic brain injury table above. It shows annual increases in identified service members with TBI, peaking in 2011 at nearly 33,000 cases, after which there has been a steady decline each year. This graph was updated on April 20, 2016.

 

Department of Defense Numbers for Traumatic Brain Injury Worldwide - Number of Service Members Diagnosed by Branch of Service: This graph depicts the number of service members diagnosed every year since 2000, according to service. Army accounts for the largest number of service members with traumatic brain injury, peaking in 2011 with nearly 20,000 identified cases, followed by Marine Corps, Air Force and Navy service members. This graph was updated on April 2016.



Department of Defense Numbers for Traumatic Brain Injury Worldwide - Number of Service Members Diagnosed by Severity: This graph depicts the number of service members diagnosed with a traumatic brain injury, every year since 2000, according to the severity of the sustained injury. Mild traumatic brain injuries are shown to be by far the largest source of service member traumatic brain injuries, with over 20,000 cases in 2014 alone, followed by other severity injuries, accounting for less than 9,000 cases total. This graph was updated on April 2016.

**About the Data**

Where do the numbers come from?

The data is obtained from multiple sources, including the [Armed Forces Health Surveillance Branch (link is external)](https://www.afhsc.mil/Home/Index), which operates the [Defense Medical Surveillance System (link is external)](https://www.afhsc.mil/Home/dmss), a continuously expanding relational database that documents military and medical experiences of service members throughout their careers. Also, the [Theater Medical Data Store (link is external)](http://www.health.mil/Military-Health-Topics/Health-Readiness/Biological-Surveillance-Tools/Theater-Medical-Data-Store), a Web-based application used to track, analyze and manage a service members’ medical treatment information recorded on the battlefield.

How are TBI cases defined?

A TBI case is defined based on the [Department of Defense (DoD) Standard Surveillance Case Definition for TBI (link is external)](https://www.afhsc.mil/Home/CaseDefinitions) used by the Armed Forces Health Surveillance Branch for routine surveillance and reporting.

The first inpatient or outpatient TBI medical encounter is identified using billing codes from insurance claims defined in the appropriate version of the International Classification of Diseases. The International Classification of Diseases, 10th edition, Clinical Modification ([ICD-10-CM](http://dvbic.dcoe.mil/material/icd-10-diagnostic-coding-guidance-traumatic-brain-injury-training-slides)) took effect Oct. 1, 2015, replacing the ICD-9-CM coding guidelines. Military treatment facilities code medical encounters using ICD-10-CM and other DoD specific codes.

If a service member has sustained more than one TBI, are all of them counted?

No. If a service member has had more than one TBI, only one of their injuries is counted for the purpose of this reporting.

If a service member has sustained more than one type of TBI, are both counted?

TBIs are classified as mild, moderate, severe, or penetrating. If a service member has sustained more than one type of TBI, the highest TBI severity is reported. For example, a service member with a previous ‘mild’ TBI will be counted as having a ‘moderate’ TBI if the individual is later diagnosed with a ‘moderate’ TBI. The date of their first TBI medical encounter determines the date on which they’re reported as a TBI surveillance case. This approach is intended to correct situations where new medical information is collected after the initial diagnosis and to avoid over counting the number of service members who have sustained a TBI.

How often are the numbers updated?

The numbers are updated both quarterly and annually. The numbers of service members diagnosed with a TBI for the current year and immediate past calendar year are updated quarterly. For all other years, the numbers are updated annually to reflect changes in the administrative databases.

What does a quarter cover?

The calendar year is divided into four quarters, often abbreviated Q1, Q2, Q3 and Q4. The four quarters that make up the year for the purposes of TBI surveillance reports are:

* Q1 represents the period January 1 – March 31
* Q2 represents the period April 1 – June 30
* Q3 represents the period July 1 – September 30
* Q4 represents the period October 1 – December 31

What other surveillance activities does DVBIC perform?

DVBIC performs more in-depth analysis on TBI-related data to include descriptions of risk and patterns of health care. Important public health findings are disseminated in medical journals. Health system management internal reports are provided to senior military leaders and may be available to military treatment facilities upon request. For public health purposes, DVBIC also collaborates with the Air Force Medical Readiness Decision Support Systems, Joint Trauma Analysis and Prevention of Injuries in Combat, Navy and Marine Corps Public Health Center, and Department of Veterans Affairs. For further information, please email the DVBIC surveillance team (link sends e-mail).

[Post Deployment Stress - What You Can Do](http://www.biami.org/_literature_41801/Post_Deployment_Stress_-_What_You_Can_Do) (427 KB)

[Post Deployment Stress - What Families Can Do](http://www.biami.org/_literature_41800/Post_Deployment_Stress_-_What_Families_Can_Do) (532 KB)

[Invisible Wounds of War - Assisting Recovery](http://www.biami.org/_literature_41799/Invisible_Wounds_of_War_-_Assisting_Recovery) (2928 KB)

[Invisible Wounds of War - Addressing Injuries](http://www.biami.org/_literature_41798/Invisible_Wounds_of_War_-_Addressing_Injuries) (449 KB)

[Invisible Wounds of War - Summary](http://www.biami.org/_literature_41797/Invisible_Wounds_of_War_-_Summary) (253 KB)

[Resources for Veterans Brochure](http://www.biami.org/_literature_41802/Resources_for_Veterans_Brochure) (296 KB)

[Veterans' Newsletter](http://www.biami.org/_literature_41803/Veterans%27_Newsletter) (25585 KB)

[Veterans Resources Brochure](http://www.biami.org/_literature_41500/Veterans_Resources_Brochure) (186 KB)

[Veterans Affairs Directorate 2010](http://www.biami.org/_literature_100997/Veterans_Affairs_Directorate_2010) (358 KB)

<http://www.militaryconnection.com/veterans/veteran-government-resource-sites.asp>

**TBI and the Military**

<http://dvbic.dcoe.mil/tbi-military>

**Traumatic Brain Injury and PTSD**

<https://www.ptsd.va.gov/professional/co-occurring/traumatic-brain-injury-ptsd.asp>

**What to Know About Traumatic Brain Injury and the Military**

<http://www.military.com/benefits/veterans-health-care/traumatic-brain-injury-symptoms-diagnosis-and-treatment.html>

**Traumatic Brain Injury report from PBS documentary “Where Soldiers Come From”**

<http://www.pbs.org/pov/wheresoldierscomefrom/traumatic-brain-injury>

**NPR: How the Military is Failing its Wounded**

<http://www.npr.org/series/127402851/brain-wars-how-the-military-is-failing-its-wounded>

**Military Traumatic Brain Injury: A Review**

http://www.sciencedirect.com/science/article/pii/S155252601400140X

**BIAMI member and sponsor Eisenhower Center offers a unique TBI transitional program for the military, athletes, and first responders**

<http://www.eisenhowercenter.com/after-the-impact/>

**Cohen Biosciences is a non-profit research organization focused on TBI and PTSD**

<https://www.cohenveteransbioscience.org/traumatic-brain-injury/>