

Effective October 2015, the International Classification of Diseases was updated. With the improved information, more moderate traumatic brain injuries can be counted. Previously, some cases were categorized as "unclassifiable" severity due to more limited surveillance information. Also in 2015, the Assistant Secretary of Defense clarified the TBI case definition. A subsequent review found that some of the remaining "unclassifiable" cases were likely moderate TBI. This change also will contribute to higher counts of moderate TBI surveillance cases.

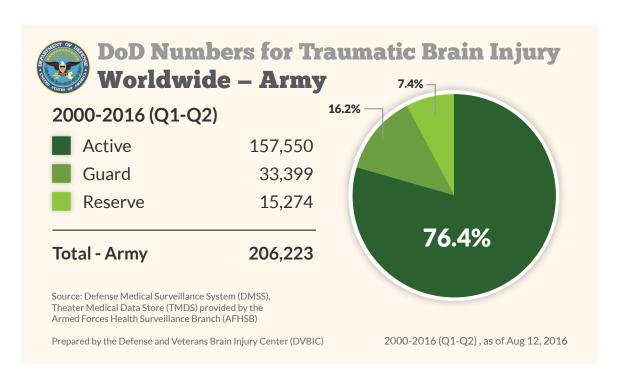
Worldwide numbers represent medical diagnoses of TBI that occurred anywhere U.S. forces are located including the continental United States since 2000.

**Concussion/Mild TBI is characterized by the following:** Confused or disoriented state which lasts less than 24 hours; or loss of consciousness for up to 30 minutes; or memory loss lasting less than 24 hours. Excludes penetrating TBI. A CT scan is not indicated for most patients with a Mild TBI. If obtained, it is normal.

**Moderate TBI is characterized by the following:** Confused or disoriented state which lasts more than 24 hours; or loss of consciousness for more than 30 minutes, but less than 24 hours; or memory loss lasting greater than 24 hours but less than seven days; or meets criteria for Mild TBI except an abnormal CT scan is present. Excludes penetrating TBI. A structural brain imaging study may be normal or abnormal.

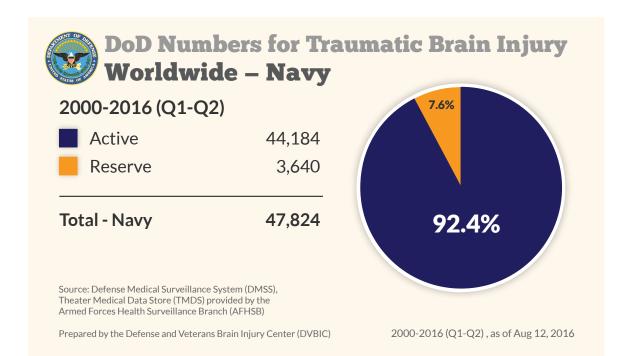
**Severe TBI is characterized by the following:** Confused or disoriented state which lasts more than 24 hours; or loss of consciousness for more than 24 hours; or memory loss for more than seven days. Excludes penetrating TBI. A structural brain imaging study may be normal but usually is abnormal.

**Penetrating TBI, or open head injury, is characterized by the following:** A head injury in which the scalp, skull and dura mater (the outer layer of the meninges) are penetrated. Penetrating injuries can be caused by high-velocity projectiles or objects of lower velocity such as knives, or bone fragments from a skull fracture that are driven into the brain.



Service	Component	Severity	Diagnosed
Army	Active	Penetrating	2,462
		Severe	1,710
		Moderate	13,477
		Mild	127,708
		Not Classifiable	12,193
	Guard	Penetrating	475
		Severe	339
		Moderate	2,685
		Mild	27,614
		Not Classifiable	2,286
	Reserve	Penetrating	159
		Severe	164
		Moderate	1,266
		Mild	12,528
		Not Classifiable	1,157

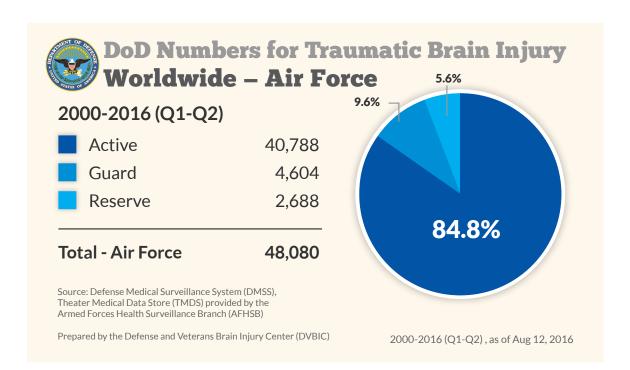
Source: Defense Medical Surveillance System (DMSS) and Theater Medical Data Store (TMDS) provided by the Armed Forces Health Surveillance Branch (AFHSB) Prepared by the Defense and Veterans Brain Injury Center (DVBIC)



Service	Component	Severity	Diagnosed
Navy	Active	Penetrating	570
		Severe	414
		Moderate	4,604
		Mild	36,300
		Not Classifiable	2,296
	Reserve	Penetrating	45
		Severe	29
		Moderate	339
		Mild	3,057
		Not Classifiable	170

Source: Defense Medical Surveillance System (DMSS) and Theater Medical Data Store (TMDS) provided by the Armed Forces Health Surveillance Branch (AFHSB)

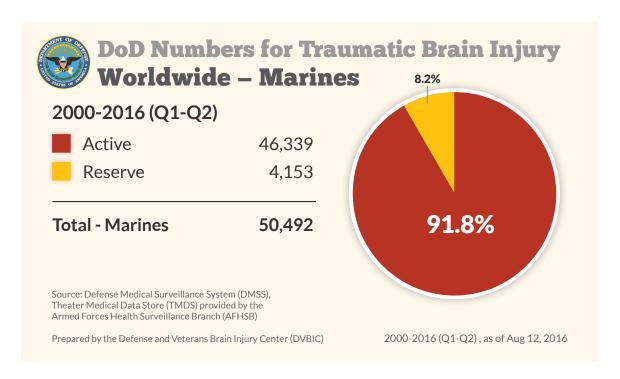
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Service	Component	Severity	Diagnosed
Air Force	Active	Penetrating	477
		Severe	374
		Moderate	3,607
		Mild	34,978
		Not Classifiable	1,352
	Guard	Penetrating	51
		Severe	31
		Moderate	389
		Mild	3,977
		Not Classifiable	156
	Reserve	Penetrating	29
		Severe	22
		Moderate	229
		Mild	2,313
		Not Classifiable	95

Source: Defense Medical Surveillance System (DMSS) and Theater Medical Data Store (TMDS) provided by the Armed Forces Health Surveillance Branch (AFHSB)

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Service	Component	Severity	Diagnosed
Marines	Active	Penetrating	691
		Severe	562
		Moderate	4,856
		Mild	38,301
		Not Classifiable	1,929
	Reserve	Penetrating	65
		Severe	51
		Moderate	401
		Mild	3,438
		Not Classifiable	198

Source: Defense Medical Surveillance System (DMSS) and Theater Medical Data Store (TMDS) provided by the Armed Forces Health Surveillance Branch (AFHSB)

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