

Definitions and Revisions

Effective March 2020, the Armed Forces Health Surveillance Division (AFHSD) resumed the distribution of data from the Defense Medical Surveillance System (DMSS) used in this report. The current report reflects up-to-date data from the AFHSD since 2000.

From 2018 (Q2) through 2019 (Q3), AFHSD temporarily halted the distribution of the data used in this report and the Traumatic Brain Injury Center of Excellence (TBICoE) used the MHS Data Repository to ensure this report was completed on a timely basis. While TBICoE used a different data source, the approach was consistent with the historical methodology.

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.

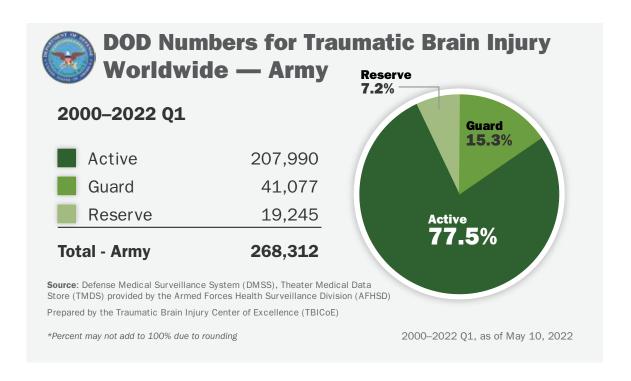
Worldwide numbers represent medical diagnoses of TBI that occurred anywhere U.S. forces are located including the continental United States since 2000.

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.

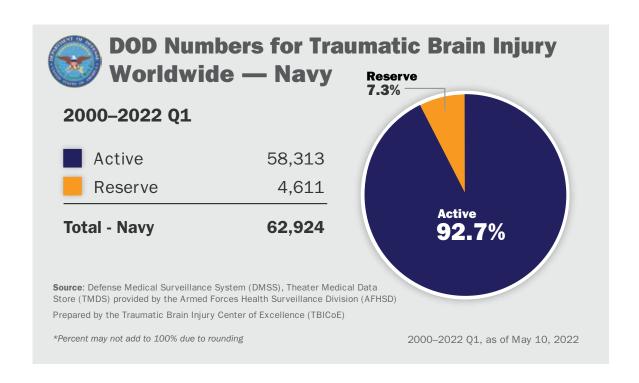
Severe TBI is characterized by the following: Confused or disoriented state which lasts more than 24 hours; or loss of consciousness for more than 24 hours; or memory loss for more than seven days. Excludes penetrating TBI. A structural brain imaging study may be normal but usually is abnormal.

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 home fragments from a skull fracture that are driven into the brain.



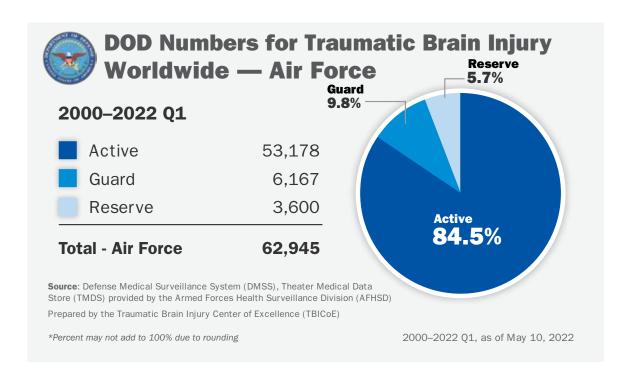
Service	Component	Severity	Diagnosed
Army	Active	Penetrating	2,704
		Severe	2,124
		Moderate	22,256
		Mild	169,414
		Not Classifiable	11,492
	Guard	Penetrating	530
		Severe	412
		Moderate	4,215
		Mild	33,677
		Not Classifiable	2,243
	Reserve	Penetrating	184
		Severe	200
		Moderate	2,018
		Mild	15,726
		Not Classifiable	1,117

Source: Defense Medical Surveillance System (DMSS), Theater Medical Data Store (TMDS) provided by the Armed Forces Health Surveillance Division (AFHSD).



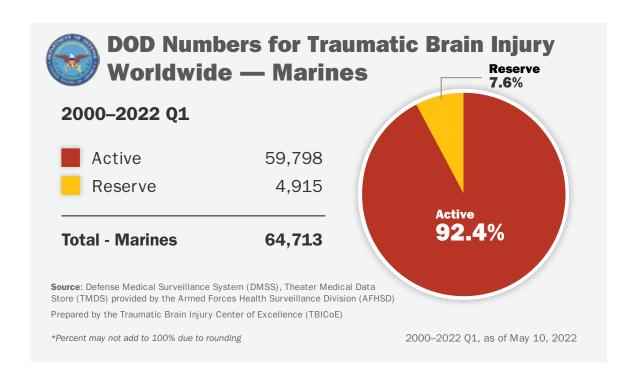
Service	Component	Severity	Diagnosed
Navy	Active	Penetrating	669
		Severe	549
		Moderate	6,980
		Mild	47,860
		Not Classifiable	2,255
	Reserve	Penetrating	51
		Severe	34
		Moderate	515
		Mild	3,845
		Not Classifiable	166

Source: Defense Medical Surveillance System (DMSS), Theater Medical Data Store (TMDS) provided by the Armed Forces Health Surveillance Division (AFHSD).



Service	Component	Severity	Diagnosed
Air Force	Active	Penetrating	548
		Severe	486
		Moderate	5,591
		Mild	45,243
		Not Classifiable	1,310
	Guard	Penetrating	59
		Severe	49
		Moderate	731
		Mild	5,177
		Not Classifiable	151
	Reserve	Penetrating	34
		Severe	29
		Moderate	429
		Mild	3,014
		Not Classifiable	94

Source: Defense Medical Surveillance System (DMSS), Theater Medical Data Store (TMDS) provided by the Armed Forces Health Surveillance Division (AFHSD).



Service	Component	Severity	Diagnosed
Marines	Active	Penetrating	784
		Severe	682
		Moderate	7,063
		Mild	49,421
		Not Classifiable	1,848
	Reserve	Penetrating	69
		Severe	58
		Moderate	544
		Mild	4,048
		Not Classifiable	196

Source: Defense Medical Surveillance System (DMSS), Theater Medical Data Store (TMDS) provided by the Armed Forces Health Surveillance Division (AFHSD).