

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.

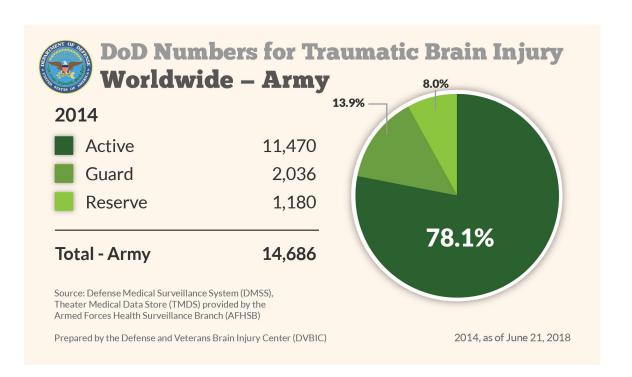
Worldwide numbers represent medical diagnoses of TBI that occurred anywhere U.S. forces are located including the continental United States since 2000.

**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.

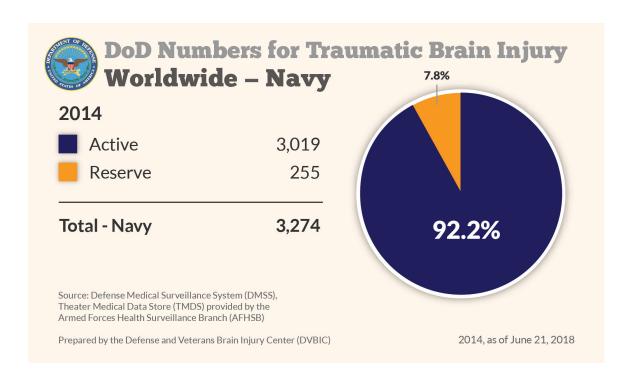
**Severe TBI is characterized by the following:** Confused or disoriented state which lasts more than 24 hours; or loss of consciousness for more than 24 hours; or memory loss for more than seven days. Excludes penetrating TBI. A structural brain imaging study may be normal but usually is abnormal.

**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	76
		Severe	80
		Moderate	1,165
		Mild	9,268
		Not Classifiable	881
	Guard	Penetrating	16
		Severe	12
		Moderate	136
		Mild	1,730
		Not Classifiable	142
	Reserve	Penetrating	3
		Severe	5
		Moderate	85
		Mild	962
		Not Classifiable	125

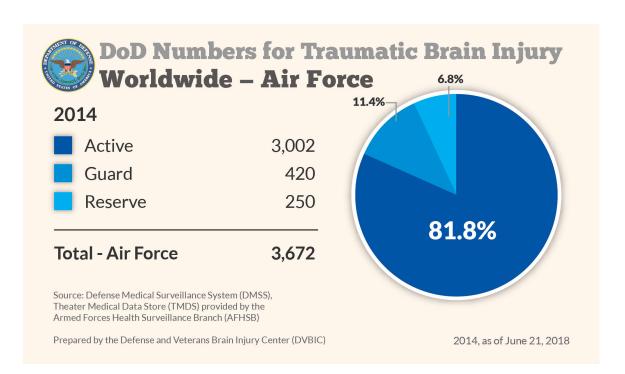
Source: Defense Medical Surveillance System (DMSS) and Theater Medical Data Store (TMDS) provided by the Armed Forces Health Surveillance Branch (AFHSB) Prepared by the Defense and Veterans Brain Injury Center (DVBIC)



Service	Component	Severity	Diagnosed
Navy	Active	Penetrating	21
		Severe	18
		Moderate	314
		Mild	2,549
		Not Classifiable	117
	Reserve	Penetrating	2
		Severe	2
		Moderate	14
		Mild	227
		Not Classifiable	10

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

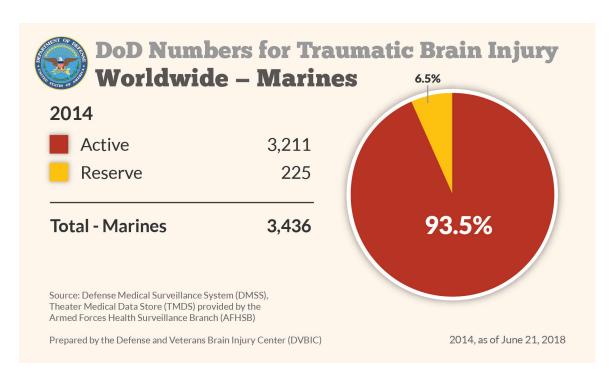
Prepared by the Defense and Veterans Brain Injury Center (DVBIC)



Service	Component	Severity	Diagnosed
Air Force	Active	Penetrating	24
		Severe	19
		Moderate	229
		Mild	2,637
		Not Classifiable	93
	Guard	Penetrating	1
		Severe	4
		Moderate	30
		Mild	371
		Not Classifiable	14
	Reserve	Penetrating	2
		Severe	2
		Moderate	12
		Mild	223
		Not Classifiable	11

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	27
		Severe	29
		Moderate	326
		Mild	2,682
		Not Classifiable	147
	Reserve	Penetrating	2
		Severe	2
		Moderate	24
		Mild	188
		Not Classifiable	9

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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