

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.

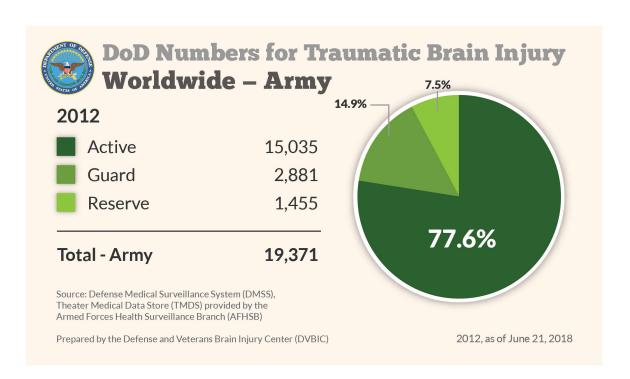
Worldwide numbers represent medical diagnoses of TBI that occurred anywhere U.S. forces are located including the continental United States since 2000.

**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.

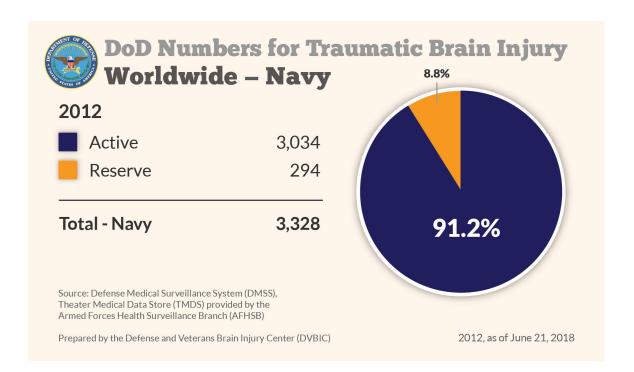
**Severe TBI is characterized by the following:** Confused or disoriented state which lasts more than 24 hours; or loss of consciousness for more than 24 hours; or memory loss for more than seven days. Excludes penetrating TBI. A structural brain imaging study may be normal but usually is abnormal.

**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	127
		Severe	161
		Moderate	1,042
		Mild	12,429
		Not Classifiable	1,276
	Guard	Penetrating	20
		Severe	24
		Moderate	194
		Mild	2,427
		Not Classifiable	216
	Reserve	Penetrating	11
		Severe	21
		Moderate	87
		Mild	1,205
		Not Classifiable	131

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)

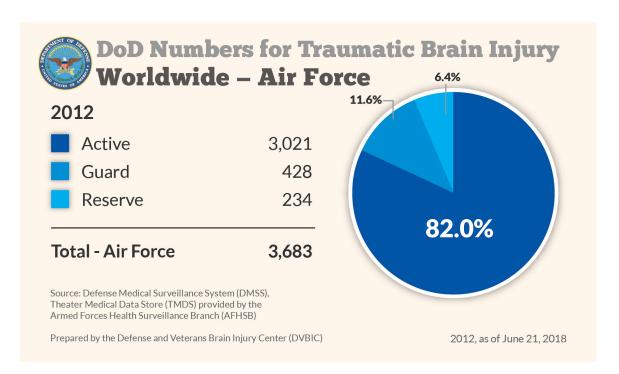


Service	Component	Severity	Diagnosed
Navy	Active	Penetrating	18
		Severe	30
		Moderate	217
		Mild	2,677
		Not Classifiable	93
	Reserve	Penetrating	4
		Severe	-
		Moderate	18
		Mild	253
		Not Classifiable	19

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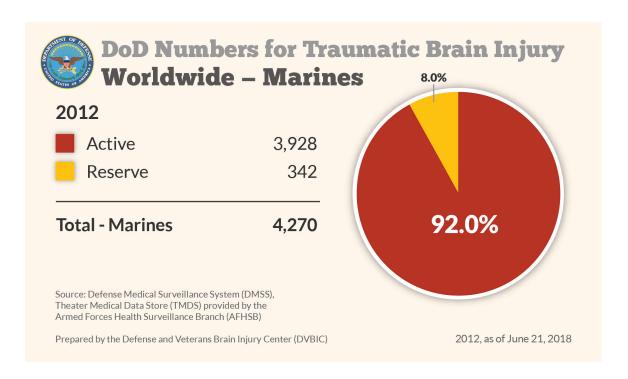


Service	Component	Severity	Diagnosed
Air Force	Active	Penetrating	25
		Severe	17
		Moderate	199
		Mild	2,681
		Not Classifiable	99
	Guard	Penetrating	2
		Severe	4
		Moderate	30
		Mild	375
		Not Classifiable	17
	Reserve	Penetrating	2
		Severe	-
		Moderate	19
		Mild	208
		Not Classifiable	5

Source: Defense Medical Surveillance System (DMSS) and

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Service	Component	Severity	Diagnosed
Marines	Active	Penetrating	35
		Severe	41
		Moderate	249
		Mild	3,394
		Not Classifiable	209
	Reserve	Penetrating	4
		Severe	1
		Moderate	24
		Mild	298
		Not Classifiable	15

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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