

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.

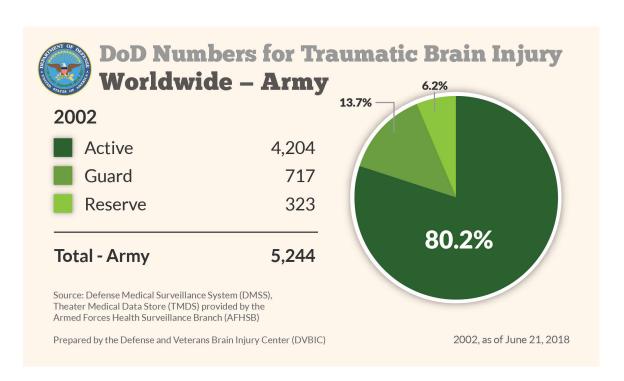
Worldwide numbers represent medical diagnoses of TBI that occurred anywhere U.S. forces are located including the continental United States since 2000.

**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.

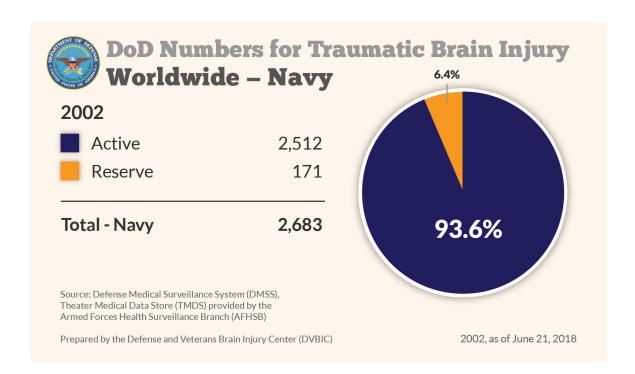
**Severe TBI is characterized by the following:** Confused or disoriented state which lasts more than 24 hours; or loss of consciousness for more than 24 hours; or memory loss for more than seven days. Excludes penetrating TBI. A structural brain imaging study may be normal but usually is abnormal.

**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	88
		Severe	57
		Moderate	457
		Mild	3,243
		Not Classifiable	359
	Guard	Penetrating	19
		Severe	11
		Moderate	82
		Mild	559
		Not Classifiable	46
	Reserve	Penetrating	4
		Severe	-
		Moderate	40
		Mild	256
		Not Classifiable	23

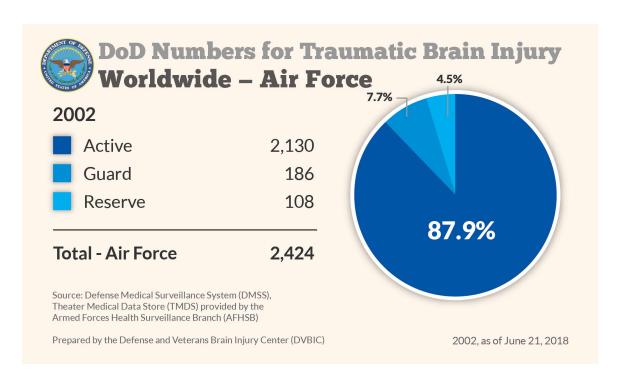
Source: Defense Medical Surveillance System (DMSS) and Theater Medical Data Store (TMDS) provided by the Armed Forces Health Surveillance Branch (AFHSB) Prepared by the Defense and Veterans Brain Injury Center (DVBIC)



Service	Component	Severity	Diagnosed
Navy	Active	Penetrating	54
		Severe	27
		Moderate	301
		Mild	1890
		Not Classifiable	240
	Reserve	Penetrating	5
		Severe	5
		Moderate	18
		Mild	131
		Not Classifiable	12

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

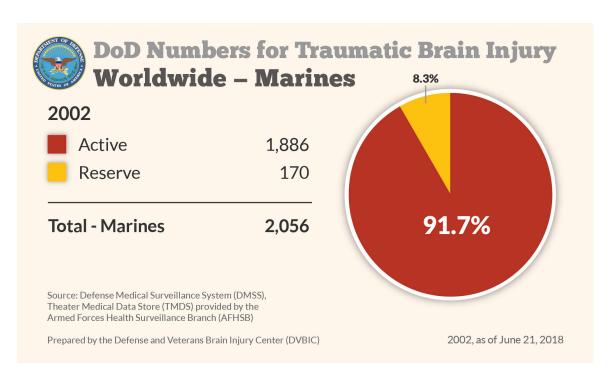
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Service	Component	Severity	Diagnosed
Air Force	Active	Penetrating	32
		Severe	24
		Moderate	257
		Mild	1709
		Not Classifiable	108
	Guard	Penetrating	4
		Severe	1
		Moderate	17
		Mild	149
		Not Classifiable	15
	Reserve	Penetrating	3
		Severe	3
		Moderate	10
		Mild	86
		Not Classifiable	6

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	32
		Moderate	277
		Mild	1,459
		Not Classifiable	91
	Reserve	Penetrating	3
		Severe	1
		Moderate	12
		Mild	145
		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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