

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.

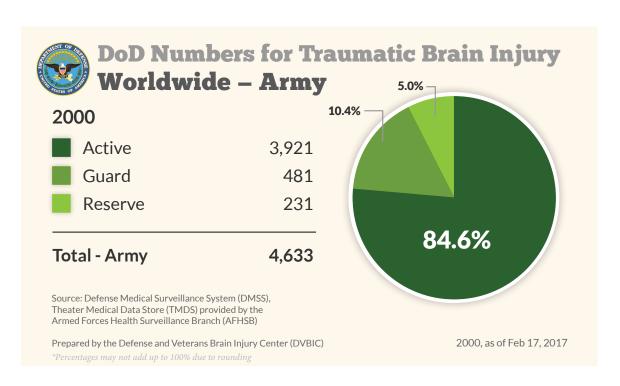
Worldwide numbers represent medical diagnoses of TBI that occurred anywhere U.S. forces are located including the continental United States since 2000.

**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.

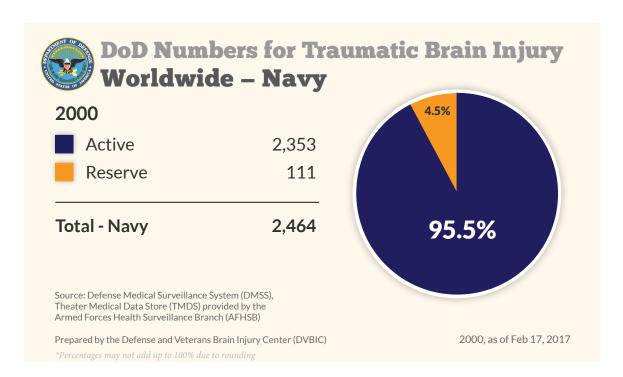
**Severe TBI is characterized by the following:** Confused or disoriented state which lasts more than 24 hours; or loss of consciousness for more than 24 hours; or memory loss for more than seven days. Excludes penetrating TBI. A structural brain imaging study may be normal but usually is abnormal.

**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	104
		Severe	71
		Moderate	510
		Mild	2,677
		Not Classifiable	559
	Guard	Penetrating	10
		Severe	8
		Moderate	69
		Mild	334
		Not Classifiable	60
	Reserve	Penetrating	5
		Severe	4
		Moderate	31
		Mild	149
		Not Classifiable	42

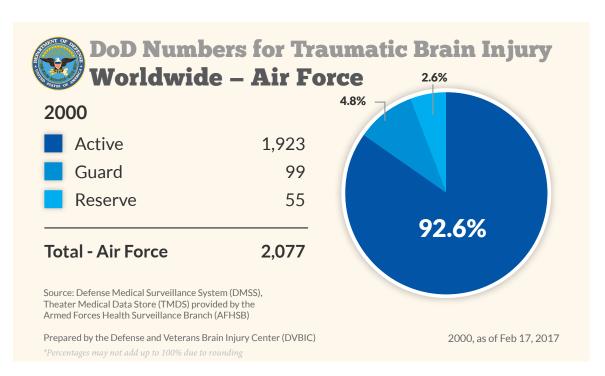
Source: Defense Medical Surveillance System (DMSS) and Theater Medical Data Store (TMDS) provided by the Armed Forces Health Surveillance Branch (AFHSB) Prepared by the Defense and Veterans Brain Injury Center (DVBIC)



Service	Component	Severity	Diagnosed
Navy	Active	Penetrating	52
		Severe	31
		Moderate	333
		Mild	1,404
		Not Classifiable	533
	Reserve	Penetrating	4
		Severe	1
		Moderate	14
		Mild	73
		Not Classifiable	19

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

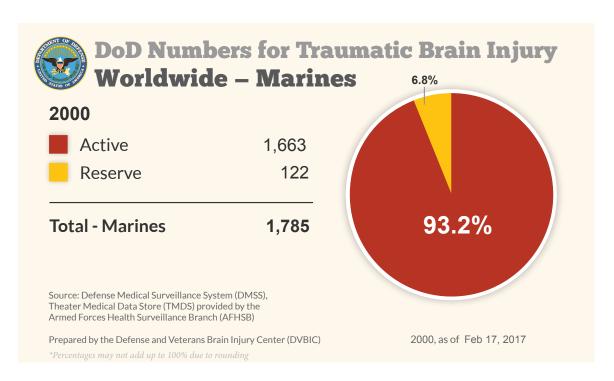
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Service	Component	Severity	Diagnosed
Air Force	Active	Penetrating	41
		Severe	28
		Moderate	303
		Mild	1,327
		Not Classifiable	224
	Guard	Penetrating	3
		Severe	2
		Moderate	16
		Mild	69
		Not Classifiable	9
	Reserve	Penetrating	2
		Severe	-
		Moderate	12
		Mild	37
		Not Classifiable	4

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	50
		Severe	33
		Moderate	327
		Mild	1,025
		Not Classifiable	228
	Reserve	Penetrating	4
		Severe	4
		Moderate	16
		Mild	82
		Not Classifiable	16

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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