

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.

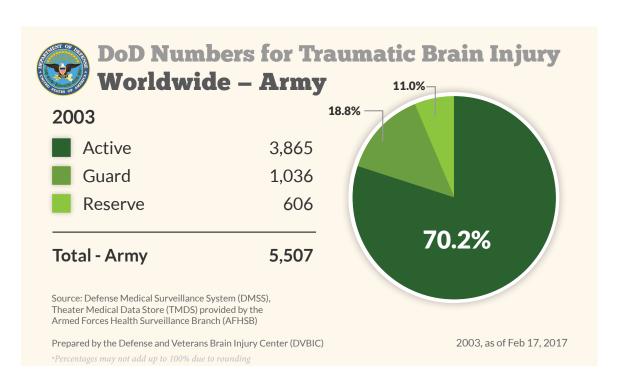
Worldwide numbers represent medical diagnoses of TBI that occurred anywhere U.S. forces are located including the continental United States since 2000.

**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.

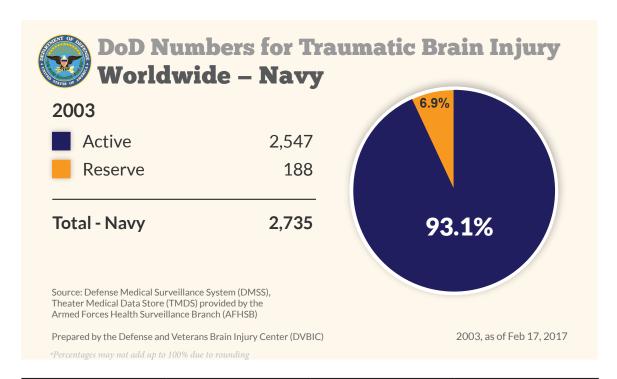
**Severe TBI is characterized by the following:** Confused or disoriented state which lasts more than 24 hours; or loss of consciousness for more than 24 hours; or memory loss for more than seven days. Excludes penetrating TBI. A structural brain imaging study may be normal but usually is abnormal.

**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	96
		Severe	62
		Moderate	397
		Mild	3,121
		Not Classifiable	189
	Guard	Penetrating	26
		Severe	14
		Moderate	104
		Mild	839
		Not Classifiable	53
	Reserve	Penetrating	10
		Severe	2
		Moderate	72
		Mild	481
		Not Classifiable	41

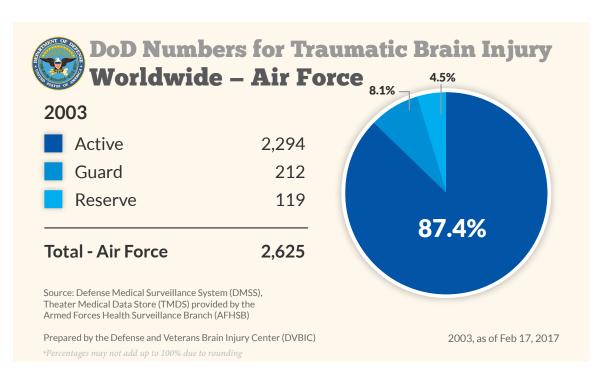
Source: Defense Medical Surveillance System (DMSS) and Theater Medical Data Store (TMDS) provided by the Armed Forces Health Surveillance Branch (AFHSB) Prepared by the Defense and Veterans Brain Injury Center (DVBIC)



Service	Component	Severity	Diagnosed
Navy	Active	Penetrating	53
		Severe	35
		Moderate	306
		Mild	1952
		Not Classifiable	201
	Reserve	Penetrating	2
		Severe	1
		Moderate	33
		Mild	142
		Not Classifiable	10

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

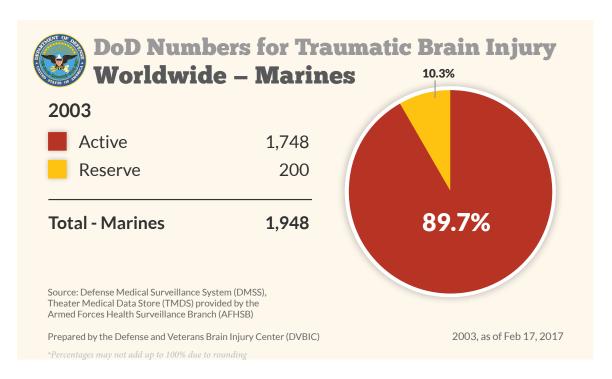
Prepared by the Defense and Veterans Brain Injury Center (DVBIC)



Service	Component	Severity	Diagnosed
Air Force	Active	Penetrating	42
		Severe	33
		Moderate	228
		Mild	1928
		Not Classifiable	63
	Guard	Penetrating	1
		Severe	2
		Moderate	19
		Mild	184
		Not Classifiable	6
	Reserve	Penetrating	1
		Severe	2
		Moderate	9
		Mild	100
		Not Classifiable	7

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
Marines	Active	Penetrating	44
		Severe	18
		Moderate	248
		Mild	1371
		Not Classifiable	67
	Reserve	Penetrating	10
		Severe	5
		Moderate	27
		Mild	145
		Not Classifiable	13

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)