

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.

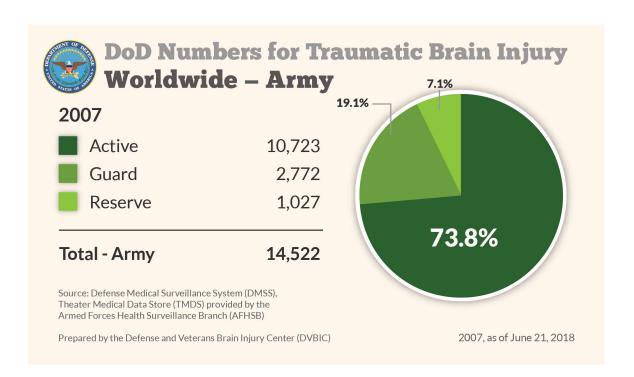
Worldwide numbers represent medical diagnoses of TBI that occurred anywhere U.S. forces are located including the continental United States since 2000.

**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.

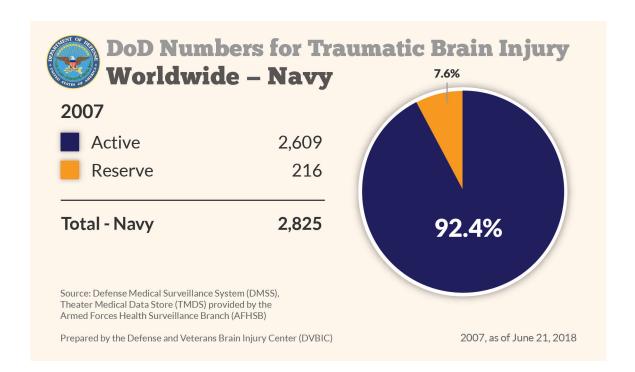
**Severe TBI is characterized by the following:** Confused or disoriented state which lasts more than 24 hours; or loss of consciousness for more than 24 hours; or memory loss for more than seven days. Excludes penetrating TBI. A structural brain imaging study may be normal but usually is abnormal.

**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	237
		Severe	134
		Moderate	1,126
		Mild	8,977
		Not Classifiable	249
	Guard	Penetrating	30
		Severe	28
		Moderate	246
		Mild	2,418
		Not Classifiable	50
	Reserve	Penetrating	13
		Severe	8
		Moderate	106
		Mild	876
		Not Classifiable	24

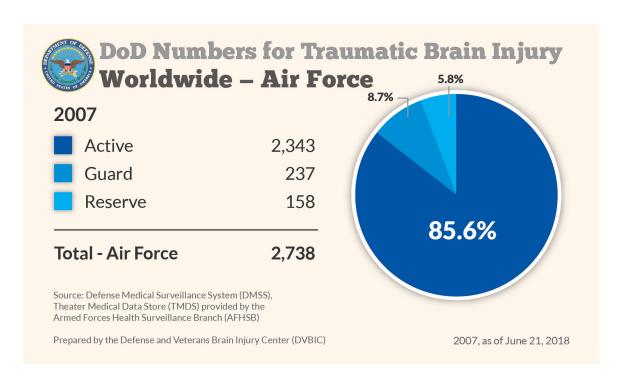
Source: Defense Medical Surveillance System (DMSS) and Theater Medical Data Store (TMDS) provided by the Armed Forces Health Surveillance Branch (AFHSB) Prepared by the Defense and Veterans Brain Injury Center (DVBIC)



Service	Component	Severity	Diagnosed
Navy	Active	Penetrating	38
		Severe	18
		Moderate	258
		Mild	2,240
		Not Classifiable	55
	Reserve	Penetrating	1
		Severe	1
		Moderate	16
		Mild	189
		Not Classifiable	9

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

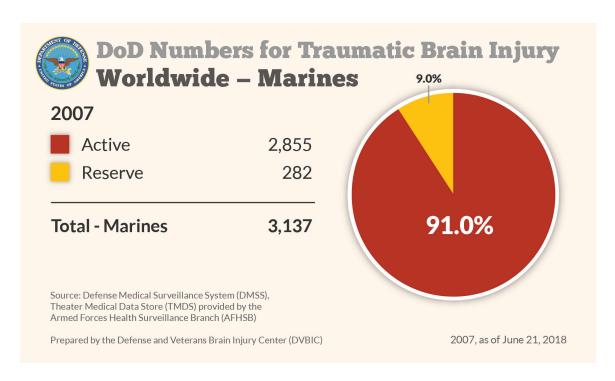
Prepared by the Defense and Veterans Brain Injury Center (DVBIC)



Service	Component	Severity	Diagnosed
Air Force	Active	Penetrating	29
		Severe	25
		Moderate	201
		Mild	2,049
		Not Classifiable	39
	Guard	Penetrating	5
		Severe	1
		Moderate	17
		Mild	211
		Not Classifiable	3
	Reserve	Penetrating	-
		Severe	-
		Moderate	17
		Mild	138
		Not Classifiable	3

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	54
		Severe	33
		Moderate	373
		Mild	2,372
		Not Classifiable	23
	Reserve	Penetrating	-
		Severe	1
		Moderate	28
		Mild	251
		Not Classifiable	2

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)