



## DoD Numbers for Traumatic Brain Injury Worldwide – Totals

2009

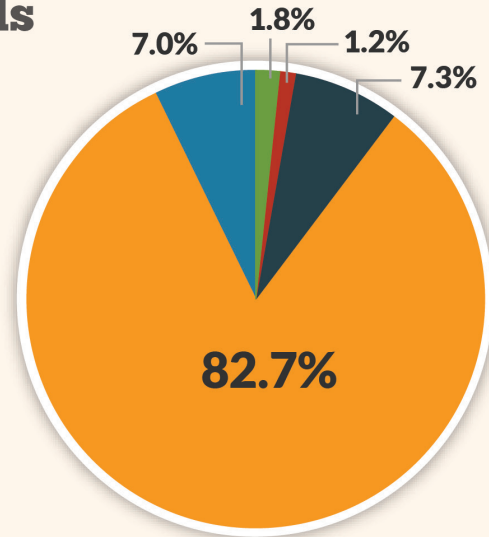
Penetrating	518
Severe	361
Moderate	2,098
Mild	23,899
Not Classifiable	2,020

**Total - All Severities 28,896**

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

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

\*Percentages do not add up to 100% due to rounding



2009, as of June 21, 2018

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.

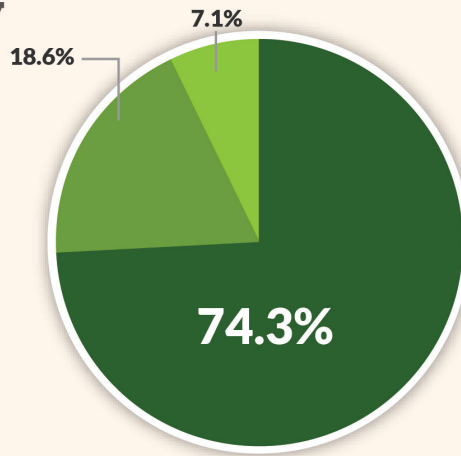


## DoD Numbers for Traumatic Brain Injury Worldwide – Army

2009

Active	14,008
Guard	3,508
Reserve	1,330

**Total - Army 18,846**



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

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2009, as of June 21, 2018

Service	Component	Severity	Diagnosed
Army	Active	Penetrating	333
		Severe	197
		Moderate	987
		Mild	11,061
		Not Classifiable	1,430
	Guard	Penetrating	67
		Severe	50
		Moderate	260
		Mild	2,921
		Not Classifiable	210
	Reserve	Penetrating	17
		Severe	15
		Moderate	98
		Mild	1,092
		Not Classifiable	108

2009, as of June 21, 2018

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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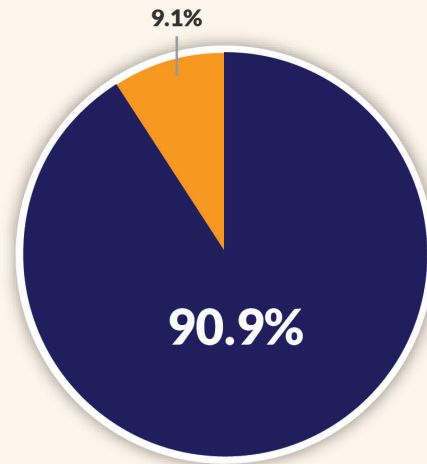
## DoD Numbers for Traumatic Brain Injury Worldwide – Navy

2009

Active	2,736
Reserve	275

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**Total - Navy** **3,011**



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

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2009, as of June 21, 2018

Service	Component	Severity	Diagnosed
Navy	Active	Penetrating	25
		Severe	19
		Moderate	175
		Mild	2,445
		Not Classifiable	76
	Reserve	Penetrating	3
		Severe	3
		Moderate	29
		Mild	227
		Not Classifiable	13

2009, as of June 21, 2018

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)



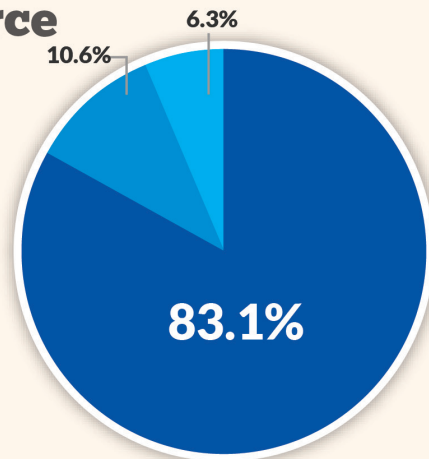
# DoD Numbers for Traumatic Brain Injury Worldwide – Air Force

2009

<span style="color: #0056b3;">■</span> Active	2,690
<span style="color: #00a0e3;">■</span> Guard	344
<span style="color: #00bfff;">■</span> Reserve	203

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**Total - Air Force** **3,237**



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

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

2009, as of June 21, 2018

Service	Component	Severity	Diagnosed
Air Force	Active	Penetrating	25
		Severe	22
		Moderate	204
		Mild	2,391
		Not Classifiable	48
	Guard	Penetrating	2
		Severe	2
		Moderate	28
		Mild	303
		Not Classifiable	9
	Reserve	Penetrating	2
		Severe	3
		Moderate	17
		Mild	176
		Not Classifiable	5

2009, as of June 21, 2018

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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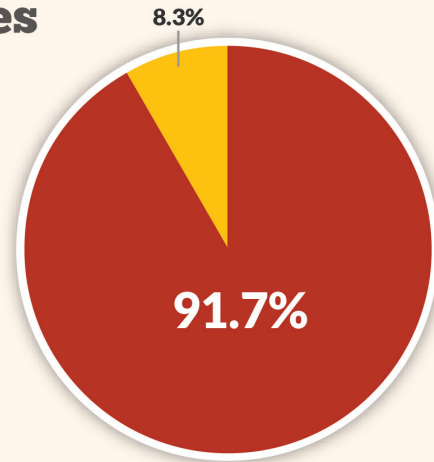
## DoD Numbers for Traumatic Brain Injury Worldwide – Marines

2009

<span style="color: red;">■</span> Active	3,488
<span style="color: yellow;">■</span> Reserve	314

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**Total - Marines** **3,802**



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

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

2009, as of June 21, 2018

Service	Component	Severity	Diagnosed
Marines	Active	Penetrating	42
		Severe	48
		Moderate	278
		Mild	3,016
		Not Classifiable	104
	Reserve	Penetrating	2
		Severe	2
		Moderate	22
		Mild	271
		Not Classifiable	17

2009, as of June 21, 2018

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)