

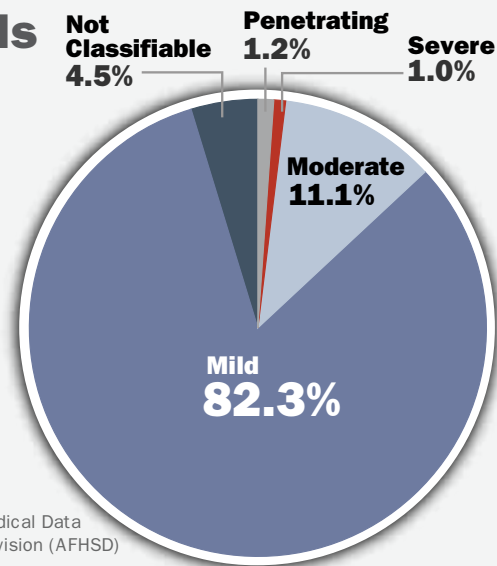


# DOD Numbers for Traumatic Brain Injury Worldwide — Totals

## 2000–2022 Q3

Penetrating	5,666
Severe	4,667
Moderate	51,827
Mild	385,391
Not Classifiable	20,873

**Total - All Severities 468,424**



Source: Defense Medical Surveillance System (DMSS), Theater Medical Data Store (TMDS) provided by the Armed Forces Health Surveillance Division (AFHSD)  
Prepared by the Traumatic Brain Injury Center of Excellence (TBICoE)

\*Percent may not add to 100% due to rounding

2000–2022 Q3, as of November 17, 2022

### Definitions and Revisions

Effective March 2020, the Armed Forces Health Surveillance Division (AFHSD) resumed the distribution of data from the Defense Medical Surveillance System (DMSS) used in this report. The current report reflects up-to-date data from the AFHSD since 2000.

From 2018 (Q2) through 2019 (Q3), AFHSD temporarily halted the distribution of the data used in this report and the Traumatic Brain Injury Center of Excellence (TBICoE) used the MHS Data Repository to ensure this report was completed on a timely basis. While TBICoE used a different data source, the approach was consistent with the historical methodology.

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.

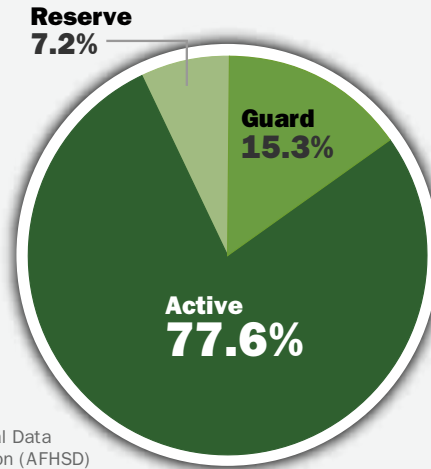
**Penetrating TBI, or open head injury, is characterized by the following:** A head injury in which the scalp, skull and dura mater (the outer layer of the meninges) are penetrated. Penetrating injuries can be caused by high-velocity projectiles or objects of lower velocity such as knives, or home fragments from a skull fracture that are driven into the brain.



# DOD Numbers for Traumatic Brain Injury Worldwide — Army

2000–2022 Q3

Active	212,263
Guard	41,723
Reserve	19,572
<b>Total - Army</b>	<b>273,558</b>



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2000–2022 Q3, as of November 17, 2022

Service	Component	Severity	Diagnosed
Army	Active	Penetrating	2,717
		Severe	2,135
		Moderate	22,885
		Mild	173,034
		Not Classifiable	11,492
	Guard	Penetrating	534
		Severe	420
		Moderate	4,335
		Mild	34,191
		Not Classifiable	2,243
	Reserve	Penetrating	185
		Severe	201
		Moderate	2,081
		Mild	15,988
		Not Classifiable	1,117

2000–2022 Q3, as of November 17, 2022

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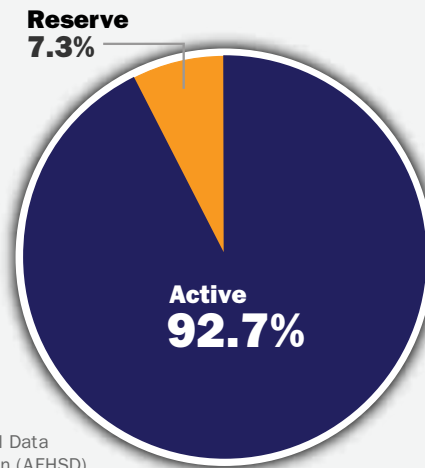
Prepared by the Traumatic Brain Injury Center of Excellence (TBI CoE)



# DOD Numbers for Traumatic Brain Injury Worldwide — Navy

2000–2022 Q3

Active	59,780
Reserve	4,708
<b>Total - Navy</b>	<b>64,488</b>



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2000–2022 Q3, as of November 17, 2022

Service	Component	Severity	Diagnosed
Navy	Active	Penetrating	671
		Severe	557
		Moderate	7,204
		Mild	49,092
		Not Classifiable	2,256
	Reserve	Penetrating	52
		Severe	36
		Moderate	532
		Mild	3,922
		Not Classifiable	166

2000–2022 Q3, as of November 17, 2022

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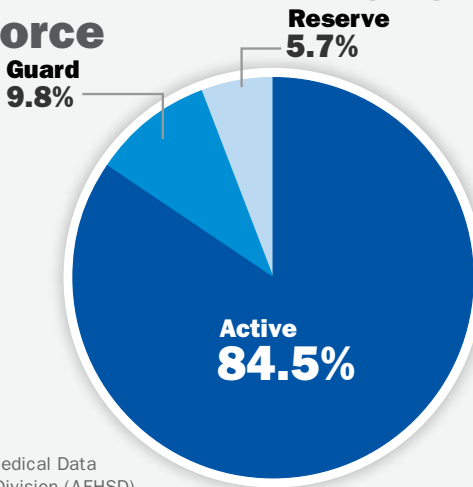


# DOD Numbers for Traumatic Brain Injury Worldwide — Air Force

2000–2022 Q3

Active	54,386
Guard	6,304
Reserve	3,685

**Total - Air Force 64,375**



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

Prepared by the Traumatic Brain Injury Center of Excellence (TBI CoE)

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2000–2022 Q3, as of November 17, 2022

Service	Component	Severity	Diagnosed
Air Force	Active	Penetrating	553
		Severe	490
		Moderate	5,776
		Mild	46,257
		Not Classifiable	1,310
	Guard	Penetrating	59
		Severe	49
		Moderate	755
		Mild	5,290
		Not Classifiable	151
	Reserve	Penetrating	34
		Severe	30
		Moderate	449
		Mild	3,078
		Not Classifiable	94

2000–2022 Q3, as of November 17, 2022

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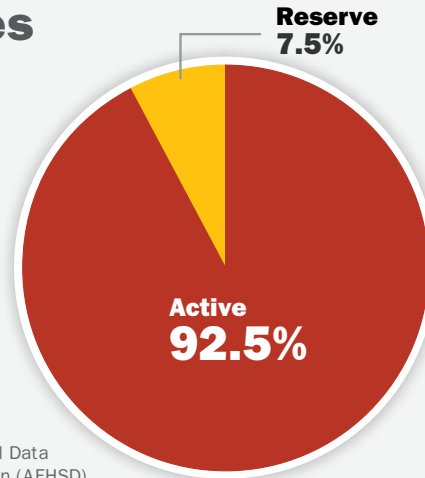
## DOD Numbers for Traumatic Brain Injury Worldwide — Marines

2000–2022 Q3

Active	61,027
Reserve	4,976

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**Total - Marines 66,003**



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2000–2022 Q3, as of November 17, 2022

Service	Component	Severity	Diagnosed
Marines	Active	Penetrating	792
		Severe	691
		Moderate	7,254
		Mild	50,442
		Not Classifiable	1,848
	Reserve	Penetrating	69
		Severe	58
		Moderate	556
		Mild	4,097
		Not Classifiable	196

2000–2022 Q3, as of November 17, 2022

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