

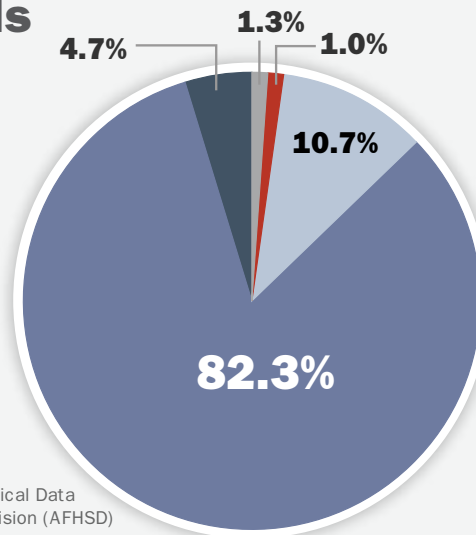


## DOD Numbers for Traumatic Brain Injury Worldwide — Totals

### 2000–2021 Q2

|                  |         |
|------------------|---------|
| Penetrating      | 5,562   |
| Severe           | 4,559   |
| Moderate         | 47,479  |
| Mild             | 365,771 |
| Not Classifiable | 20,957  |

**Total - All Severities 444,328**



**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*

2000–2021 Q2, as of August 26, 2021

### 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.

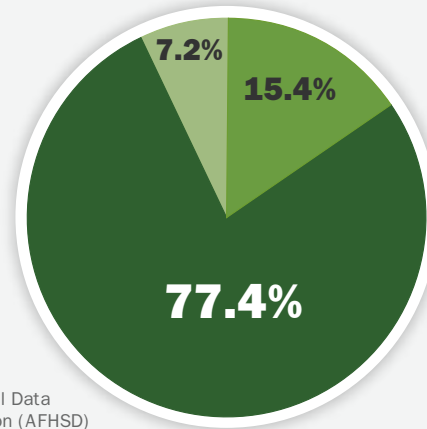
**Penetrating TBI, or open head injury, is characterized by the following:** A head injury in which the scalp, skull and dura mater (the outer layer of the meninges) are penetrated. Penetrating injuries can be caused by high-velocity projectiles or objects of lower velocity such as knives, or home fragments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



# DOD Numbers for Traumatic Brain Injury Worldwide — Army

2000–2021 Q2

|                     |                |
|---------------------|----------------|
| Active              | 201,412        |
| Guard               | 40,042         |
| Reserve             | 18,711         |
| <b>Total - Army</b> | <b>260,165</b> |



Source: Defense Medical Surveillance System (DMSS), Theater Medical Data Store (TMDS) provided by the Armed Forces Health Surveillance Division (AFHSD)  
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2000–2021 Q2, as of August 26, 2021

| Service | Component | Severity         | Diagnosed |
|---------|-----------|------------------|-----------|
| Army    | Active    | Penetrating      | 2,683     |
|         |           | Severe           | 2,096     |
|         |           | Moderate         | 20,959    |
|         |           | Mild             | 164,116   |
|         |           | Not Classifiable | 11,558    |
|         | Guard     | Penetrating      | 521       |
|         |           | Severe           | 404       |
|         |           | Moderate         | 3,988     |
|         |           | Mild             | 32,879    |
|         |           | Not Classifiable | 2,250     |
|         | Reserve   | Penetrating      | 182       |
|         |           | Severe           | 199       |
|         |           | Moderate         | 1,907     |
|         |           | Mild             | 15,302    |
|         |           | Not Classifiable | 1,121     |

2000-2021 Q2, as of August 26, 2021

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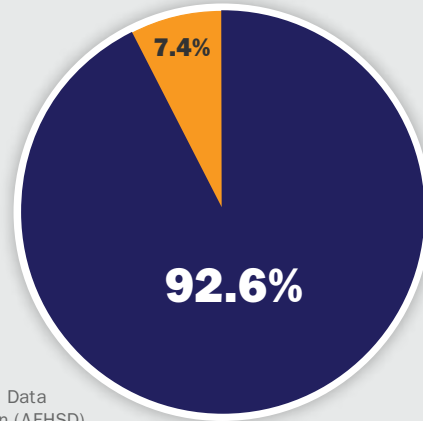


## DOD Numbers for Traumatic Brain Injury Worldwide — Navy

2000–2021 Q2

|         |        |
|---------|--------|
| Active  | 56,110 |
| Reserve | 4,493  |

**Total - Navy 60,603**



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)

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2000–2021 Q2, as of August 26, 2021

| Service | Component | Severity         | Diagnosed |
|---------|-----------|------------------|-----------|
| Navy    | Active    | Penetrating      | 654       |
|         |           | Severe           | 541       |
|         |           | Moderate         | 6,542     |
|         |           | Mild             | 46,115    |
|         |           | Not Classifiable | 2,258     |
|         | Reserve   | Penetrating      | 50        |
|         |           | Severe           | 34        |
|         |           | Moderate         | 492       |
|         |           | Mild             | 3,750     |
|         |           | Not Classifiable | 167       |

2000-2021 Q2, as of August 26, 2021

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)

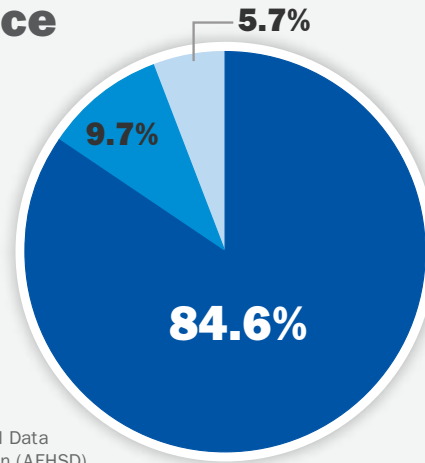


# DOD Numbers for Traumatic Brain Injury Worldwide — Air Force

2000–2021 Q2

|         |        |
|---------|--------|
| Active  | 51,435 |
| Guard   | 5,903  |
| Reserve | 3,461  |

**Total - Air Force 60,799**



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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2000–2021 Q2, as of August 26, 2021

| Service   | Component | Severity         | Diagnosed |
|-----------|-----------|------------------|-----------|
| Air Force | Active    | Penetrating      | 542       |
|           |           | Severe           | 481       |
|           |           | Moderate         | 5,284     |
|           |           | Mild             | 43,817    |
|           |           | Not Classifiable | 1,311     |
|           | Guard     | Penetrating      | 59        |
|           |           | Severe           | 46        |
|           |           | Moderate         | 673       |
|           |           | Mild             | 4,974     |
|           |           | Not Classifiable | 151       |
|           | Reserve   | Penetrating      | 34        |
|           |           | Severe           | 29        |
|           |           | Moderate         | 394       |
|           |           | Mild             | 2,910     |
|           |           | Not Classifiable | 94        |

2000-2021 Q2, as of August 26, 2021

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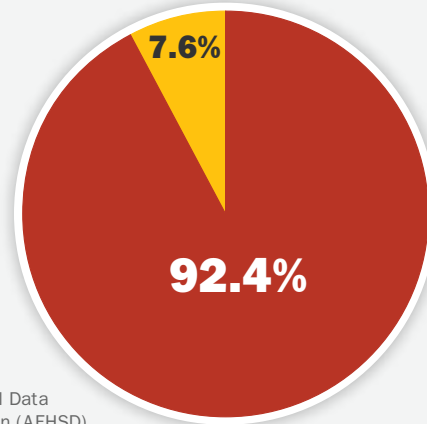


## DOD Numbers for Traumatic Brain Injury Worldwide — Marines

2000–2021 Q2

|         |        |
|---------|--------|
| Active  | 57,969 |
| Reserve | 4,792  |

**Total - Marines 62,761**



Source: Defense Medical Surveillance System (DMSS), Theater Medical Data Store (TMDS) provided by the Armed Forces Health Surveillance Division (AFHSD)  
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2000–2021 Q2, as of August 26, 2021

| Service | Component | Severity         | Diagnosed |
|---------|-----------|------------------|-----------|
| Marines | Active    | Penetrating      | 768       |
|         |           | Severe           | 671       |
|         |           | Moderate         | 6,726     |
|         |           | Mild             | 47,953    |
|         |           | Not Classifiable | 1,851     |
|         | Reserve   | Penetrating      | 69        |
|         |           | Severe           | 58        |
|         |           | Moderate         | 514       |
|         |           | Mild             | 3,955     |
|         |           | Not Classifiable | 196       |

2000-2021 Q2, as of August 26, 2021

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)