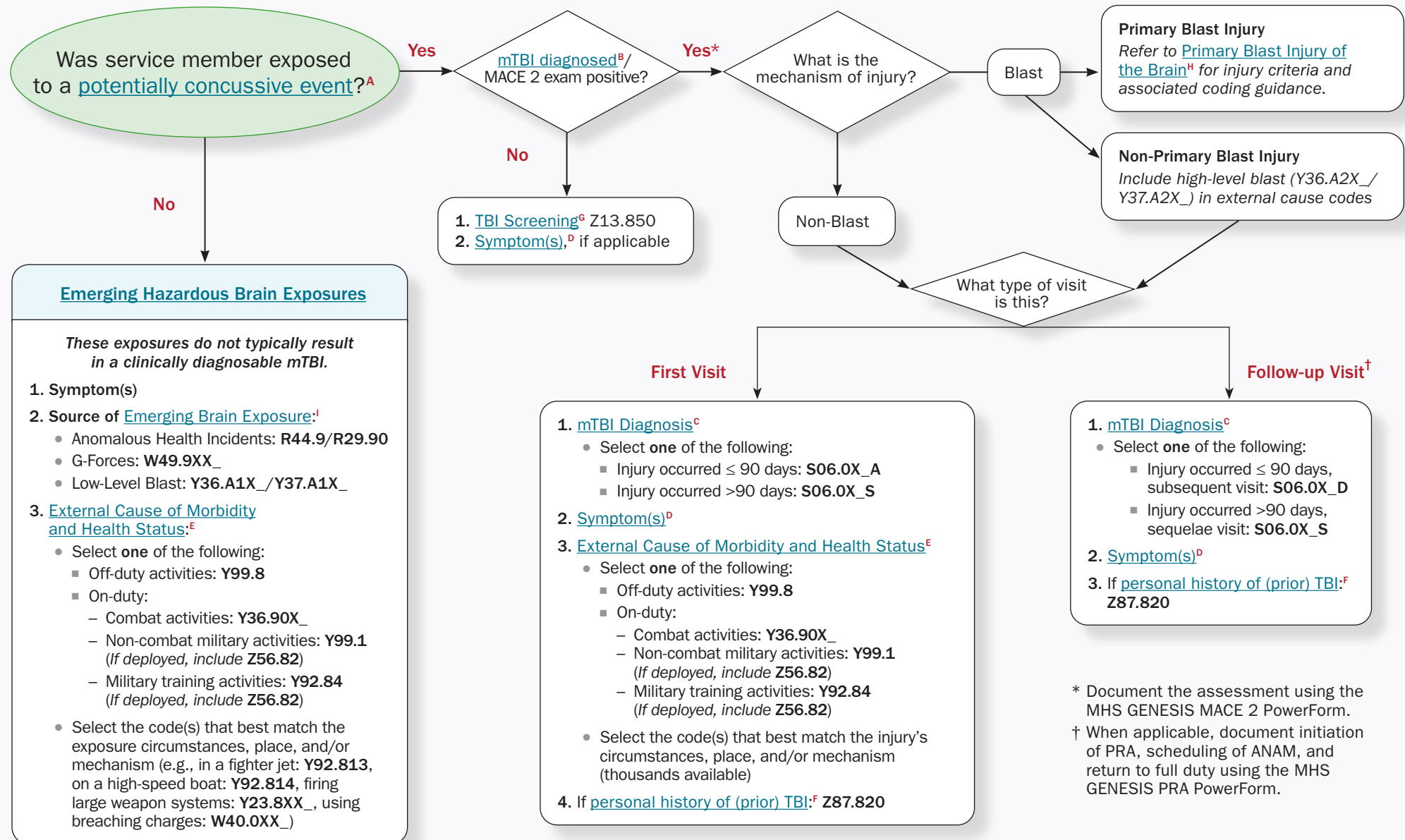


# ICD-10-CM Coding Guidance: Warfighter Brain Injury and Exposures

Traumatic Brain Injury Center of Excellence

This algorithm provides guidance on how to accurately and sequentially code for mild TBI and emerging hazardous brain exposures within the MHS. This is an interactive document; click the appropriate links for further details.



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## Traumatic Brain Injury Center of Excellence

This document is designed to be a single reference to standardize brain injury and exposure coding across the MHS. Accurate and consistent coding is essential for generating the [DOD Worldwide Numbers](#) which report the incidence and prevalence of TBI in the DOD. It also assists with:

- Identification of clinical associations and environmental patterns that could lead to a better understanding of TBI
- Allocation of resources
- Facilitation of seamless transition along the continuum of care
- Reimbursement of care
- Determination of disability
- Identification of areas for TBI process improvement

Review the supplemental information below to better understand the content within the algorithm.

**A. Potentially Concussive Event:** As outlined in DODI 6490.11 and DHA-PI 6490.11, events requiring mandatory evaluation include, but are not limited to:

- Involvement in a vehicle (high-level) blast event, collision, or rollover
- Presence within 75 meters of a (high-level) blast (inside or outside)
- A direct blow to the head or witnessed loss of consciousness
- Exposure to more than one blast event
- Falls
- Sport-related head impacts

**B. TBI Definition:** [2015 DOD Definition of Traumatic Brain Injury](#): A traumatically induced structural injury or physiological disruption of brain function, as a result of an external force, that is indicated by new onset or worsening of at least one of the following clinical signs immediately following the event:

- Any alteration of mental status (e.g. confusion, disorientation, slowed thinking, etc.)
- Any period of loss of or a decreased level of consciousness, observed or self-reported
- Any loss of memory for events immediately before or after the injury

**C. Primary mTBI Diagnostic Code (S06.OX\_ \_):** The primary mTBI diagnostic code provides information about the characteristics of the mTBI and the encounter. It is a seven-character code, with the first three characters describing the general injury and the last four further identifying the cause, location, severity, and type of encounter.

The concussion codes S06.OX\_ \_ account for approximately 85% of TBIs encountered within the MHS.

Refer to [ICD-10-CM Guidance](#) for more information on coding other types and severities of TBI.

When completing the concussion codes S06.OX\_ \_, use the following MHS-specific guidance to select the appropriate sixth and seventh character:

### Sixth character:

- 
- 0 No loss of consciousness (LOC)
  - 1 LOC ≤30 minutes
  - 9 LOC unspecified duration
- 

### Seventh character (provides information on where a service member is within mTBI occurrence episode of care):

- If mTBI occurred ≤90 days ago ([acute and post-acute phase](#)):
  - “A” is ONLY used for the patient's first visit for the mTBI occurrence within the MHS, regardless of the provider diagnosing or treating the patient.
  - “D” is used for each subsequent visit, regardless of the provider diagnosing or treating the patient.

*Note: This ONLY applies to services provided within the MHS. For example, if a service member was seen for an mTBI evaluation in a civilian facility under purchased care, their first visit to the MHS for the same mTBI occurrence will be assigned “A”, irrespective of whether “A” was already used in the purchased care system.*
- If mTBI occurred >90 days ago ([chronic phase](#)):
  - “S” is used for sequela—the residual effect or condition produced after the acute phase of the mTBI has ended, such as the emergence of insomnia after a mTBI. Since the patient is now in the chronic phase of mTBI (as defined by the DHA-PI and VA/DOD CPG), it is assumed that their current symptoms are due to sequela. When using the seventh character “S”, it is necessary to use both the mTBI code that precipitated the sequela AND the code for the sequela itself (e.g., S06.OX\_S for the mTBI and G47.00 for the insomnia).

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**D. Symptom Codes:** All mTBI-related symptoms the service member endorses must be coded to identify the number and duration. While no single symptom or collection of symptoms is unique to mTBI, this table lists symptom and diagnosis codes commonly associated with mTBI.

Cognitive	
R41.0	Disorientation, unspecified
R41.84_	Other specified cognitive deficit (e.g., communication, attention, psychomotor, visuospatial)
R41.9	Unspecified symptoms and signs involving cognitive functions and awareness
Hearing/Vestibular	
H81.1_	Benign paroxysmal positional vertigo
H81.39_	Other peripheral vertigo
H81.4	Vertigo of central origin
H81.9_	Unspecified disorder of vestibular function
H91.9_	Unspecified hearing loss
H93.1_	Tinnitus
H93.23_	Hyperacusis
R26.81	Unsteadiness on feet
R42	Dizziness
Behavioral/Emotional	
F10.9_	Alcohol use, unspecified
F32._	Depression
F41._	Other anxiety disorders
F43._	Reaction to severe stress and adjustment disorders
R45.0	Nervousness
R45.1	Restlessness and agitation
R45.4	Irritability and anger
R45.86	Emotional lability
R45.87	Impulsiveness
R45.89	Other symptoms and signs involving emotional state

Headache	
G43.001–G43.919	Migraine headache
G44.201–G44.229	Tension-type headache
G44.30_	Post-traumatic headache, unspecified
G44.4_	Medication overuse headache
G44.86	Cervicogenic headache
Sleep	
G47.00	Insomnia, unspecified
G47.01	Insomnia due to a medical condition
G47.20	Circadian rhythm sleep disorder, unspecified
G47.33	Obstructive sleep apnea
G47.9	Sleep disorder, unspecified
Vision	
H53.14_	Visual discomfort (eye strain or fatigue, photophobia)
H53.19	Other subjective visual disturbance (halo)
H53.2	Diplopia
H53.8	Other visual disturbances
H55.____	Nystagmus and other irregular eye movements
Other Physical Symptoms	
R11.0	Nausea
R11.1_	Vomiting
R43._	Disturbances of smell and taste
R53.83	Fatigue

**E. External Cause of Morbidity (V00-Y99) and Health Status Codes (Z00-Z99):** These codes help tracking systems understand activities and circumstances that may have contributed to the mTBI. They should be sequenced after the diagnosis or symptom code to capture the following:

- mTBI cause (e.g., high-level blast)
- Place where mTBI occurred
- Activity of patient at time of mTBI
- Patient's military status at time of mTBI (e.g., engaged in combat)

**F. Personal History of TBI Code (Z87.820):** The personal history of TBI code is used to indicate that a previous documented TBI has occurred and may therefore impact current care.

*Note: Centers for Medicare and Medicaid Services does not provide guidance for scenarios in which a patient reports a remote history of TBI that is not documented in the EHR. Therefore, after a thorough review of the incident details, any patient-reported symptom(s), and clinical findings, providers are encouraged to use their clinical judgment to determine whether the code S06.OX\_S, Z87.820, or neither appropriately reflects this clinical presentation.*

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**G. TBI Screening Code (Z13.850):** The TBI screening code identifies service members who screened negative for mTBI. Analyzing the screening code helps the DOD better assess the populations exposed to potentially concussive events.

**H. Primary Blast Injury of the Brain Code:** The DOD differentiates blast injuries into five categories—[Primary](#), [Secondary](#), [Tertiary](#), [Quaternary](#), and [Quinary](#)—based on the mechanism of injury. To categorize an injury as a primary blast injury, there must be clear evidence that secondary or tertiary injuries are not present.

However, this criterion is challenging to apply when a blast-related TBI has occurred, as research on the mechanism by which blast overpressure alone causes non-impact primary TBI is immature. Given the scientific uncertainty surrounding non-impact primary blast injuries to the brain, **it is reasonable to conclude that a primary blast injury of the brain (distinct from a secondary or tertiary blast injury) has occurred only when injury to a more vulnerable organ is also present.** It is therefore recommended that these codes are exclusively used in cases where TBI is accompanied by a primary blast injury to another organ such as the ear, gastrointestinal tract, or lung. If evidence of another organ injury is not present, refer to the Non-Primary Blast Injury box in the algorithm for coding guidance.

### Primary blast injury of the brain coding guidance

1. Primary blast injury of the brain: **S06.8A0\_**/**S06.8A1\_** (These codes cover the most common injuries. Refer to [ICD-10-CM Guidance](#) for the complete list of codes.)
2. Primary blast injury to another organ; at least one must be selected. Examples include:
  - a. Ear: **S09.31\_ \_**
  - b. Bronchus: **S27.41\_ \_**
  - c. Lung: **S27.31\_ \_**
  - d. Small intestine: **S36.41\_ \_**
  - e. Colon: **S36.51\_ \_**
3. Symptom(s)
4. Health status and external cause of morbidity:
  - a. Select **one** of the following:
    - i. High-level blast: **Y36.A2X\_**/**Y37.A2X\_**
    - ii. Low-level blast: **Y36.A1X\_**/**Y37.A1X\_**
  - b. Select **one** of the following:
    - i. Off-duty from military activities: **Y99.8**
    - ii. On-duty:
      1. Combat: **Y36.90X\_**
      2. Non-combat military activities: **Y99.1** (If deployed, include code **Z56.82**)
      3. Military training activities: **Y92.84** (If deployed, include code **Z56.82**)
  - c. Select the code(s) that best match the injury's circumstances, place, and/or mechanism (thousands available)
5. Personal history of TBI, if applicable: **Z87.820**

**I. Emerging Hazardous Brain Exposures:** The DOD is working to monitor and understand [emerging hazardous exposures](#) that may impact brain health and warfighter readiness. Currently, the Department does not have a full understanding of how these hazards—such as blast overpressure, [high G acceleration/vibration/recoil](#), and [anomalous health incidents](#)—affect the brain. Therefore, accurate ICD-10 coding plays a crucial role in advancing the knowledge of these hazards by supporting a surveillance system that can track exposure-related diagnoses to inform injury protection and mitigation efforts.

Type of Exposure
<b>Low-level blast overpressure:</b> generated by firing weapon systems or detonating explosives, such as 0.50 caliber weapons or breaching charges.
<b>High G acceleration/vibration/recoil forces:</b> certain military occupations (e.g., pilots, U.S. Special Warfare Combatant Crewmen) can be exposed to the physiologic effects of these forces. For example, SWCC are exposed to <a href="#">wave-slamming induced hull impacts</a> of elevated G forces.
<b>Anomalous health incident:</b> a constellation of unexplained and sudden symptoms, including the acute onset of audio-vestibular sensory phenomena.

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### ANNEX

#### Common Military mTBI-Related Codes

The following table provides examples of when to use the various codes included within the algorithm.

Code	Recommended Use
W49.9XX_	When patient is exposed to high-level acceleration G-forces from high performance aircraft or wave slamming high-speed boats.
Y36.90X_	When patient is injured or has a brain exposure while engaged in combat missions
Y36.A1X_	When patient is exposed to low-level blast (e.g., firing large caliber weapon or using breaching charge) during war or combat operations, typically in the deployed environment
Y37.A1X_	When patient is exposed to low-level blast (e.g., firing large caliber weapon or using breaching charge) during training or military operations
Y36.A2X_	When patient is exposed to high-level blast (e.g., explosive device, incoming enemy munition, rocket-propelled grenade) during war or combat operations, typically in the deployed environment
Y37.A2X_	When patient is exposed to high-level blast (e.g., explosive device, rocket-propelled grenade) during training or military operations
Y92.84	When patient is injured or has a brain exposure during military training activities
Y99.1	When patient is injured or has a brain exposure while engaged in non-combat military activities (e.g., struck head while performing military vehicle maintenance)
Y99.8	When patient is injured or has a brain exposure when off duty from military activities
Z13.850	When screening for mTBI using Military Acute Concussion Evaluation 2 (MACE 2) is negative
Z56.82	When patient is injured or has a brain exposure during deployment while engaged in military training or non-combat military activities
Z87.820	When patient has a prior diagnosed TBI to denote that it may affect care of current mTBI
CPT code: 96146	When ANAM is administered

#### TBI Resources

1. [Centers for Medicare and Medicaid Services ICD-10-CM Guidance](#)
2. [DOD Instruction 6040.42: Management Standards for Medical Coding of DOD Health Records](#)
3. [DHA Procedural Instruction 6040.42: Medical Coding of the DOD Health Record](#) (CAC required)
4. [Medical Coding Program Branch](#) (CAC required)
5. [MHS Specific Coding Guidelines](#) (CAC required)
6. [Traumatic Brain Injury Center of Excellence \(TBI CoE\)](#)
7. [Warfighter Brain Health](#)
8. [VA/DOD Clinical Practice Guideline for the Management and Rehabilitation of Post-Acute Mild Traumatic Brain Injury](#)
9. [DHA-PI 6490.11: Required Clinical Tools and Procedures for the Assessment and Clinical Management of Mild Traumatic Brain Injury/Concussion in Non-Deployed Setting](#) (CAC required)