1<sup>st</sup> symptom is <u>ICD</u> taken from the <u>2025</u> ICD code book which is used for coding diagnoses and is maintained by the World Health Organization (WHO). The 2<sup>nd</sup> symptom is <u>ICF</u> taken from the **2025** International Classification of Functioning, Disability and Health (ICF) which is a framework developed by the World Health Organization (WHO) for describing and organizing information on functioning and disability.

# **Common Symptoms of TBI and Detailed Descriptions**

- 1. Persistent headaches (TBI-related)
  - o (Headache)
  - (Pain in head and neck)
  - TBI Component: Persistent headaches are a common symptom following a TBI, often resulting from the initial impact or secondary complications such as posttraumatic headaches.
- 2. Dizziness (TBI-related)
  - (Dizziness and giddiness)
  - o (Dizziness)
  - TBI Component: Dizziness can be a result of vestibular dysfunction or damage to the brain's balance centers, common in TBI patients.
- 3. Memory problems (TBI-related)
  - (Other amnesia)
  - (Short-term memory)
  - TBI Component: Memory problems, both short-term and long-term, are frequent issues post-TBI due to damage to areas responsible for memory processing.
- 4. Confusion (TBI-related)
  - (Disorientation, unspecified)
  - (Orientation functions)
  - TBI Component: Confusion can arise from cognitive impairments, often seen in TBI patients, affecting their ability to process information and make decisions.
- 5. Sensitivity to light (TBI-related)
  - o (Photophobia)
  - (Sensitivity to light)
  - TBI Component: Sensitivity to light, or photophobia, is common in TBI patients due to brain injury affecting the sensory pathways.
- 6. Sensitivity to sound (TBI-related)
  - (Abnormal auditory perceptions, unspecified ear)
  - (Sensitivity to sound)
  - TBI Component: Sensitivity to sound, or hyperacusis, can result from damage to the brain's auditory pathways or the inner ear.
- 7. Mood changes (TBI-related)
  - (Persistent mood disorders)
  - (Appropriateness of emotion)

- TBI Component: Mood changes, including depression and anxiety, are common after TBI due to alterations in brain chemistry and neural pathways.
- 8. Emotional instability (TBI-related)
  - (Persistent mood disorders)
  - (Emotional functions)
  - TBI Component: Emotional instability can result from damage to the areas of the brain that regulate emotions and behavior, common in TBI patients.
- 9. Difficulty concentrating (TBI-related)
  - (Attention and concentration deficit)
  - (Attention functions)
  - TBI Component: Difficulty concentrating is often seen in TBI patients due to cognitive impairments affecting attention and focus.
- 10. Nausea (TBI-related)
  - o (Nausea)
  - (Digestive functions)
  - TBI Component: Nausea can be a result of vestibular dysfunction or medication side effects commonly experienced by TBI patients.
- 11. Vomiting (TBI-related)
  - (Vomiting, unspecified)
  - (Vomiting)
  - TBI Component: Vomiting can be associated with vestibular issues or increased intracranial pressure in TBI patients.
- 12. Fatigue (TBI-related)
  - (Other fatigue)
  - o (Energy level)
  - TBI Component: Fatigue is a common and persistent symptom in TBI patients, often related to cognitive and physical exertion.
- 13. Poor balance (TBI-related)
  - (Unsteadiness on feet)
  - (Balancing functions)
  - TBI Component: Poor balance can result from damage to the brain's balance centers or vestibular system, common in TBI patients.
- 14. Blurred vision (TBI-related)
  - (Other visual disturbances)
  - (Visual acuity functions)
  - TBI Component: Blurred vision can occur due to damage to the visual pathways or the eyes themselves, frequently seen in TBI patients.
- 15. Sleep disturbances (TBI-related)
  - (Sleep disorder, unspecified)
  - (Sleep functions)
  - TBI Component: Sleep disturbances are common in TBI patients and can result from changes in brain function and circadian rhythms.
- 16. Tinnitus (ringing in the ears) (TBI-related)
  - (Other specified hearing loss)

- o (Tinnitus)
- TBI Component: Tinnitus can be caused by damage to the auditory pathways or inner ear, commonly seen in TBI patients.
- 17. Changes in taste or smell (TBI-related)
  - (Other disturbances of smell and taste)
  - (Taste functions), b255 (Smell functions)
  - TBI Component: Changes in taste or smell can result from damage to the olfactory or gustatory pathways, frequent in TBI patients.
- 18. Slurred speech (TBI-related)
  - (Slurred speech)
  - (Fluency and rhythm of speech functions)
  - TBI Component: Slurred speech can occur due to damage to the brain areas responsible for motor speech control, common in TBI patients.
- 19. Seizures (TBI-related)
  - (Epilepsy, unspecified, not intractable, without status epilepticus)
  - (Seizure functions)
  - TBI Component: Seizures can be a long-term consequence of TBI due to abnormal electrical activity in the brain.
- 20. Pupil dilation (TBI-related)
  - (Localized swelling, mass, and lump, unspecified)
  - (Pupil functions)
  - TBI Component: Pupil dilation can be an indicator of increased intracranial pressure or other neurological issues following TBI.

#### Less Common Symptoms of TBI

#### 1. Paranoia or extreme anxiety (TBI-related)

- (Panic disorder [episodic paroxysmal anxiety])
- (Appropriateness of emotion)
- TBI Component: Paranoia or extreme anxiety can result from changes in brain chemistry and neural pathways after a TBI.

#### 2. Hallucinations (TBI-related)

- Other psychotic disorder not due to a substance or known physiological condition)
- (Perceptual functions)
- TBI Component: Hallucinations can occur due to damage to the sensory processing areas of the brain following a TBI.

# 3. Personality changes (TBI-related)

- (Personality change due to known physiological condition)
- (Interpersonal interactions)
- TBI Component: Personality changes can result from alterations in brain function, affecting behavior and social interactions.

### 4. Depersonalization (TBI-related)

- o (Depersonalization-derealization syndrome)
- (Other specified emotional functions)
- TBI Component: Depersonalization can occur due to disruptions in brain regions responsible for self-perception and emotional regulation.

### 5. Intrusive thoughts (TBI-related)

- (Obsessive-compulsive disorder)
- (Appropriateness of emotion)
- TBI Component: Intrusive thoughts can be a result of damage to the brain's cognitive and emotional control centers following a TBI.

### 6. Unexplained anger or irritability (TBI-related)

- (Other specified persistent mood disorders)
- (Appropriateness of emotion)
- TBI Component: Unexplained anger or irritability can result from changes in brain chemistry and neural pathways due to TBI.

# 7. Obsessive-compulsive behaviors (TBI-related)

- (Obsessive-compulsive disorder)
- (Appropriateness of emotion)
- TBI Component: Obsessive-compulsive behaviors can develop as a coping mechanism or due to changes in brain function after a TBI.

#### 8. Emotional numbness (TBI-related)

- (Other specified depressive episodes)
- (Other specified emotional functions)
- TBI Component: Emotional numbness can result from damage to brain areas involved in emotional processing and regulation.

# 9. Unusual sensory experiences (TBI-related)

- (Other specified sensory disturbances)
- (Perceptual functions)
- TBI Component: Unusual sensory experiences can occur due to disruptions in the brain's sensory processing pathways following a TBI.

#### **10. Memory lapses (TBI-related)**

- o (Other amnesia)
- (Short-term memory)
- TBI Component: Memory lapses are common after TBI due to damage to areas responsible for memory formation and recall.

# 11. Difficulty recognizing familiar faces (TBI-related)

- (Other symbolic dysfunctions)
- (Facial recognition)
- TBI Component: Difficulty recognizing familiar faces, or prosopagnosia, can result from damage to the brain's face-processing areas.

# 12. Unexplained fatigue (TBI-related)

- (Other fatigue)
- (Energy level)

• TBI Component: Unexplained fatigue is common in TBI patients and can result from cognitive and physical exertion.

### 13. Changes in sexual behavior (TBI-related)

- Other sexual dysfunction not due to a substance or known physiological condition)
- (Sexual functions)
- TBI Component: Changes in sexual behavior can occur due to hormonal imbalances or damage to areas involved in sexual function and desire.

### 14. Difficulty with spatial awareness (TBI-related)

- (Dyslexia and alexia)
- (Spatial awareness)
- TBI Component: Difficulty with spatial awareness can result from damage to the brain's parietal lobe, which is responsible for spatial processing.

### 15. Unusual taste or smell (TBI-related)

- (Other disturbances of smell and taste)
- o (Taste functions), b255 (Smell functions)
- TBI Component: Unusual taste or smell can occur due to damage to the olfactory or gustatory pathways following a TBI.

### 16. Difficulty with time perception (TBI-related)

- (Altered mental status, unspecified)
- (Time management)
- TBI Component: Difficulty with time perception can result from disruptions in the brain's temporal processing areas.

# 17. Unexplained physical symptoms (TBI-related)

- Other specified general symptoms and signs)
- (Other specified emotional functions)
- TBI Component: Unexplained physical symptoms can be a result of the brain's altered communication with the body after a TBI.

#### 18. Sleep disturbances (TBI-related)

- (Sleep disorder, unspecified)
- (Sleep functions)
- TBI Component: Sleep disturbances are common in TBI patients and can result from changes in brain function and circadian rhythms.

# 19. Hypoglycemia-like symptoms (TBI-related)

- (Hypoglycemia, unspecified)
- (Nutrition functions)
- TBI Component: Hypoglycemia-like symptoms can be due to metabolic changes and altered brain function following a TBI.

# 20. Feeling disconnected from reality (TBI-related)

- (Depersonalization-derealization syndrome)
- Other specified emotional functions)
- TBI Component: Feeling disconnected from reality can result from disruptions in brain regions responsible for self-perception and emotional regulation following a TBI.

#### Childish and Inappropriate Behavior with ICD-10, ICF Codes, and Detailed Descriptions

- 1. Impulsivity (TBI-related)
  - (Postconcussional syndrome)
  - (Impulse control)
  - TBI Component: Impulsivity can result from damage to the frontal lobes, which are responsible for executive function and self-control.
- 2. Lack of inhibition (TBI-related)
  - (Personality change due to known physiological condition)
  - (Impulse control)
  - TBI Component: Lack of inhibition can be a consequence of TBI affecting the brain regions that regulate social behavior and self-control.
- 3. Emotional outbursts (TBI-related)
  - (Other specified persistent mood disorders)
  - (Appropriateness of emotion)
  - TBI Component: Emotional outbursts can result from TBI causing difficulties in emotional regulation and impulse control.
- 4. Difficulty with social cues (TBI-related)
  - (Developmental disorder of speech and language, unspecified)
  - (Comprehension of social cues)
  - TBI Component: Difficulty with social cues can be caused by TBI affecting the brain regions responsible for social interactions and understanding social norms.
- 5. Regression (TBI-related)
  - (Other specified behavioral and emotional disorders with onset usually occurring in childhood and adolescence)
  - (Developmental stages)
  - TBI Component: Regression to earlier developmental stages can occur following a TBI, affecting emotional and behavioral responses.