Posttraumatic Stress Disorder

Diagnostic Criteria 309.81 (F43.10)

Posttraumatic Stress Disorder

Note: The following criteria apply to adults, adolescents, and children older than 6 years. For children 6 years and younger, see corresponding criteria below.

A. Exposure to actual or threatened death, serious injury, or sexual violence in one (or more) of the following ways:

1. Directly experiencing the traumatic event(s).
2. Witnessing, in person, the event(s) as it occurred to others.
3. Learning that the traumatic event(s) occurred to a close family member or close friend. In cases of actual or threatened death of a family member or friend, the event(s) must have been violent or accidental.
4. Experiencing repeated or extreme exposure to aversive details of the traumatic event(s) (e.g., first responders collecting human remains; police officers repeatedly exposed to details of child abuse).

   Note: Criterion A4 does not apply to exposure through electronic media, television, movies, or pictures, unless this exposure is work related.

B. Presence of one (or more) of the following intrusion symptoms associated with the traumatic event(s), beginning after the traumatic event(s) occurred:

1. Recurrent, involuntary, and intrusive distressing memories of the traumatic event(s).

   Note: In children older than 6 years, repetitive play may occur in which themes or aspects of the traumatic event(s) are expressed.

2. Recurrent distressing dreams in which the content and/or affect of the dream are related to the traumatic event(s).

   Note: In children, there may be frightening dreams without recognizable content.

3. Dissociative reactions (e.g., flashbacks) in which the individual feels or acts as if the traumatic event(s) were recurring. (Such reactions may occur on a continuum, with the most extreme expression being a complete loss of awareness of present surroundings.)

   Note: In children, trauma-specific reenactment may occur in play.

4. Intense or prolonged psychological distress at exposure to internal or external cues that symbolize or resemble an aspect of the traumatic event(s).

5. Marked physiological reactions to internal or external cues that symbolize or resemble an aspect of the traumatic event(s).

C. Persistent avoidance of stimuli associated with the traumatic event(s), beginning after the traumatic event(s) occurred, as evidenced by one or both of the following:

1. Avoidance of or efforts to avoid distressing memories, thoughts, or feelings about or closely associated with the traumatic event(s).

2. Avoidance of or efforts to avoid external reminders (people, places, conversations, activities, objects, situations) that arouse distressing memories, thoughts, or feelings about or closely associated with the traumatic event(s).

D. Negative alterations in cognitions and mood associated with the traumatic event(s), beginning or worsening after the traumatic event(s) occurred, as evidenced by two (or more) of the following:

1. Inability to remember an important aspect of the traumatic event(s) (typically due to dissociative amnesia and not to other factors such as head injury, alcohol, or drugs).
2. Persistent and exaggerated negative beliefs or expectations about oneself, others, or the world (e.g., "I am bad," "No one can be trusted," "The world is completely dangerous," "My whole nervous system is permanently ruined").
3. Persistent, distorted cognitions about the cause or consequences of the traumatic event(s) that lead the individual to blame himself/herself or others.
4. Persistent negative emotional state (e.g., fear, horror, anger, guilt, or shame).
5. Markedly diminished interest or participation in significant activities.
6. Feelings of detachment or estrangement from others.
7. Persistent inability to experience positive emotions (e.g., inability to experience happiness, satisfaction, or loving feelings).

E. Marked alterations in arousal and reactivity associated with the traumatic event(s), beginning or worsening after the traumatic event(s) occurred, as evidenced by two (or more) of the following:

   1. Irritable behavior and angry outbursts (with little or no provocation) typically expressed as verbal or physical aggression toward people or objects.
   2. Reckless or self-destructive behavior.
   3. Hypervigilance.
   4. Exaggerated startle response.
   5. Problems with concentration.
   6. Sleep disturbance (e.g., difficulty falling or staying asleep or restless sleep).

F. Duration of the disturbance (Criteria B, C, D, and E) is more than 1 month.

G. The disturbance causes clinically significant distress or impairment in social, occupational, or other important areas of functioning.

H. The disturbance is not attributable to the physiological effects of a substance (e.g., medication, alcohol) or another medical condition.

Specify whether:

With dissociative symptoms: The individual's symptoms meet the criteria for posttraumatic stress disorder, and in addition, in response to the stressor, the individual experiences persistent or recurrent symptoms of either of the following:

1. **Depersonalization:** Persistent or recurrent experiences of feeling detached from, and as if one were an outside observer of, one's mental processes or body (e.g., feeling as though one were in a dream; feeling a sense of unreality of self or body or of time moving slowly).

2. **Derealization:** Persistent or recurrent experiences of unreality of surroundings (e.g., the world around the individual is experienced as unreal, dreamlike, distant, or distorted).

   Note: To use this subtype, the dissociative symptoms must not be attributable to the physiological effects of a substance (e.g., blackouts, behavior during alcohol intoxication) or another medical condition (e.g., complex partial seizures).

Specify if:

With delayed expression: If the full diagnostic criteria are not met until at least 6 months after the event (although the onset and expression of some symptoms may be immediate).

PTSD

- Lifetime Prevalence 9%; Mental Health Clinic 40-50%
- <10% of trauma leads to PTSD
- Women exposed to trauma 2X likely to develop PTSD
- Rape (49%), Physical Assault (32%), Sudden Unexpected Death (14%), Natural Disaster (4%)

PTSD

- 40% of cases after an assault
- 30% sudden/unexpected death
- Exposure to trauma has no correlation with increased substance use only PTSD
- 40 % remit in first year
- 30% never remit

What psychiatric conditions are increased in PTSD?

One comorbid disorder: about 15%
Two comorbid disorders: about 15%
Three or more comorbid disorders: about 50%

What psychiatric conditions are increased in PTSD?

1. Depressive disorders
2. Bipolar disorder
3. Anxiety disorders
4. Substance use disorder
5. Conduct disorder
6. TBI
7. Major neurocognitive disorder

Children

1. Oppositional defiant disorder
2. Separation anxiety

What medical illnesses are increased in people with PTSD?

Feature	Change	Effect
A. Neuroendocrine		
Hypothalamic-pituitary-adrenal axis	Hypocortisolism	Disinhibits CRH/NE and upregulates response to stress
		Drives abnormal stress encoding and fear processing
	Sustained, increased level of CRH	Blunts ACTH response to CRH stimulation
		Promotes hippocampal atrophy
Hypothalamic-pituitary-thyroid axis	Abnormal T3:T4 ratio	Increases subjective anxiety
B. Neurochemical		
Catecholamines	Increased dopamine levels	Interferes with fear conditioning by mesolimbic system
	Increased norepinephrine levels/activity	Increases arousal, startle response, encoding of fear memories
		Increases pulse, blood pressure, and response to memories
Serotonin	Decreased concentrations of 5HT in:	
	Dorsal raphé	Disturbs dynamic between amygdala and hippocampus
	Median raphé	Compromises anxiolytic effects
	Dorsal/median raphé	Increases vigilance, startle, impulsivity, and memory intrusions
Amino acids	Decreased GABA activity	Compromises anxiolytic effects
	Increased glutamate	Fosters derealization and dissociation
Peptides	Decreased plasma NPY concentrations	Leaves CRH/NE unopposed and upregulates response to stress
	Increased CSF β-endorphin levels	Fosters numbing, stress-induced analgesia, and dissociation
C. Neuroanatomic		
Hippocampus	Reduced volume and activity	Alters stress responses and extinction
Amygdala	Increased activity	Promotes hypervigilance and impairs discrimination of threat
Cortex	Reduced prefrontal volume	Dysregulates executive functions
	Reduced anterior cingulate volume	Impairs the extinction of fear responses
	Decreased medial prefrontal activation	Unclear

What medical illnesses are increased in people with PTSD?

OR 2.5-3

1. Angina
2. Heart Failure
3. Bronchitis
4. Asthma
5. Hepatic Disease
6. Peripheral artery disease

Up To Date

Which brain regions have altered volume in PTSD?

Which brain regions have altered volume in PTSD?

Hippocampus
Left amygdala
Anterior cingulate cortex

PTSD Treatment

SSRI—1st line treatment

SNRI—some evidence

Atypical antipsychotics—possibly (re-experiencing/hyperarousal)

Alpha-adrenergic receptor blockers—prazosin decreases nightmares and decreases insomnia

Benzodiazepines—not really

Mood stabilizers—no

PTSD Therapy

Trauma-focused Cognitive Behavioral Therapy

Group Cognitive Behavioral Therapy with exposure

Eye Movement Desensitization and Reprocessing (EMDR)

Future Treatments?

D-cycloserine

-NMDA partial agonist
-NMDA: learning/memory
-NMDA antagonists block fear learning and extinction
-Cognitive enchancer?
+++Extinction Learning in Animal Models
-Used in Conjunction With Exposure Treatment

Propranolol

-Prolonged adrenergic activation in immediate aftermath of trauma shown to increase risk of PTSD
-Administer soon after trauma

Future Treatments?

- Ketamine

- 2008 retrospective chart review of OIF/OEF showed 42% decrease in PTSD for soldier treated w/ this anesthetic
- NMDA Antagaonist

- MDMA (Ecstasy)

- Enhanced psychotherapy in the 1970s
- fearful memories can be processed without negative emotions
- positive mood leads to integration of therapy concepts
- Improved trust/emotional alliance