

Calgary Heal

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Counselling Support for PTSD  
Recovery Calgary  
Calgary Trauma Insights

<https://psychologist-calgary.s3.us-west-004.backblazeb2.com/index.html>

individuals seeking counselling support for PTSD recovery. The journey to healing is unique for every person, and counselling offers a safe and supportive environment to explore and address the complex emotions and experiences associated with this condition.

One of the primary benefits of counselling for PTSD recovery in Calgary is the opportunity to work with trained professionals who understand the nuances of trauma. These counsellors are equipped with the skills and knowledge required to help individuals navigate their symptoms, which can include flashbacks, nightmares, anxiety, and depression. By providing a non-judgmental space, counsellors enable clients to express their feelings and work through their traumas at their own pace.

In Calgary, a diverse range of therapeutic approaches are available to those seeking counselling for PTSD. Some individuals may benefit from cognitive behavioral therapy (CBT), which helps in identifying and changing negative thought patterns that contribute to distressing feelings. Others might find relief through eye movement desensitization and reprocessing (EMDR), a technique that has been shown to alleviate the distress associated with traumatic memories. **Binge Eating Disorder** The

availability of different therapeutic modalities ensures that individuals can find the approach that best suits their needs and preferences.

Moreover, group therapy can be a valuable component of the recovery process. In a group setting, individuals have the opportunity to connect with others who have shared similar experiences. This sense of community can be incredibly validating and empowering, as it reminds individuals that they are not alone in their struggles.

## **Counselling Support for PTSD Recovery Calgary - Forensic Psychology**

- Forensic Psychology
- Binge Eating Disorder
- ADHD Assessments

Sharing stories and coping strategies can foster resilience and hope, essential elements in the journey towards healing.

It's important to acknowledge that recovery from PTSD is not a linear process.

## **Counselling Support for PTSD Recovery Calgary - Binge Eating Disorder**

1. Depression
2. Obsessive-Compulsive Disorder (OCD)
3. Clinical Psychologist

There may be setbacks along the way, and progress can sometimes feel slow. However, with consistent support from a counsellor and a commitment to the therapeutic process, individuals can gain significant insight into their condition and develop effective coping mechanisms. This can lead to a marked improvement in their overall well-being and day-to-day functioning.

In Calgary, accessing counselling support for PTSD recovery is made easier by the city's commitment to mental health services. There are numerous clinics and private practitioners offering specialized trauma counselling. Many of these services are covered by insurance plans, making them more accessible to a wider population. Additionally, some organizations offer sliding scale fees, ensuring that financial constraints do not become a barrier to receiving help.

In conclusion, counselling support for PTSD recovery in Calgary provides individuals with the tools and guidance necessary to reclaim their lives from the grip of trauma. By offering a variety of therapeutic approaches and fostering a sense of community, Calgary's mental health professionals play a crucial role in supporting individuals on their path to healing. While the journey may be fraught with challenges, the availability of compassionate and competent counselling services ensures that help is always within reach.

## Counselling Support for PTSD Recovery Calgary

### Calgary Trauma Tools & Tips

Discover practical tools and insights for trauma recovery tailored to Calgary life. This collection highlights strategies from counselling support to therapy techniques, helping you navigate PTSD's challenges. Explore ideas like mindfulness for stress, grounding exercises for tough days, and ways to build resilience amidst Calgary's urban pace and winter grind. Crafted with local flair, these tips draw from proven methods to ease trauma's impact - no jargon, just real support!

### PTSD Therapy Entities

- **National Center for PTSD** – A leading research and educational center dedicated to advancing the clinical care and social welfare of U.S. Veterans through research, education, and training on PTSD and stress-related disorders. [source](#)
- **American Psychological Association (APA)** – The leading scientific and professional organization representing psychology in the United States, which provides guidelines and resources for effective PTSD treatments. [source](#)
- **Wounded Warrior Project** – A nonprofit organization offering programs, services, and events for wounded veterans, including mental health support and PTSD therapy. [source](#)
- **Warrior Care Network** – A partnership between Wounded Warrior Project and four academic medical centers, providing intensive outpatient programs for veterans dealing with PTSD, TBI, and related conditions. [source](#)
- **Emory Healthcare Veterans Program** – Offers comprehensive treatment for veterans dealing with PTSD, TBI, depression, and anxiety through traditional and alternative therapies. [source](#)

- **Home Base Program** – A partnership between the Red Sox Foundation and Massachusetts General Hospital, providing clinical care and support services to veterans with PTSD and TBI. [source](#)
- **Road Home Program** – An initiative by Rush University Medical Center offering confidential support, counseling, and mental health care services to veterans and their families dealing with PTSD. [source](#)
- **Operation Mend** – A program at UCLA Health providing advanced surgical and medical treatment, as well as comprehensive psychological support for veterans with PTSD and TBI. [source](#)
- **National Alliance on Mental Illness (NAMI)** – The nation's largest grassroots mental health organization dedicated to building better lives for Americans affected by mental illness, including PTSD. [source](#)
- **Anxiety and Depression Association of America (ADAA)** – An organization dedicated to the prevention, treatment, and cure of anxiety, depression, OCD, PTSD, and co-occurring disorders. [source](#)

# Trauma News & Updates

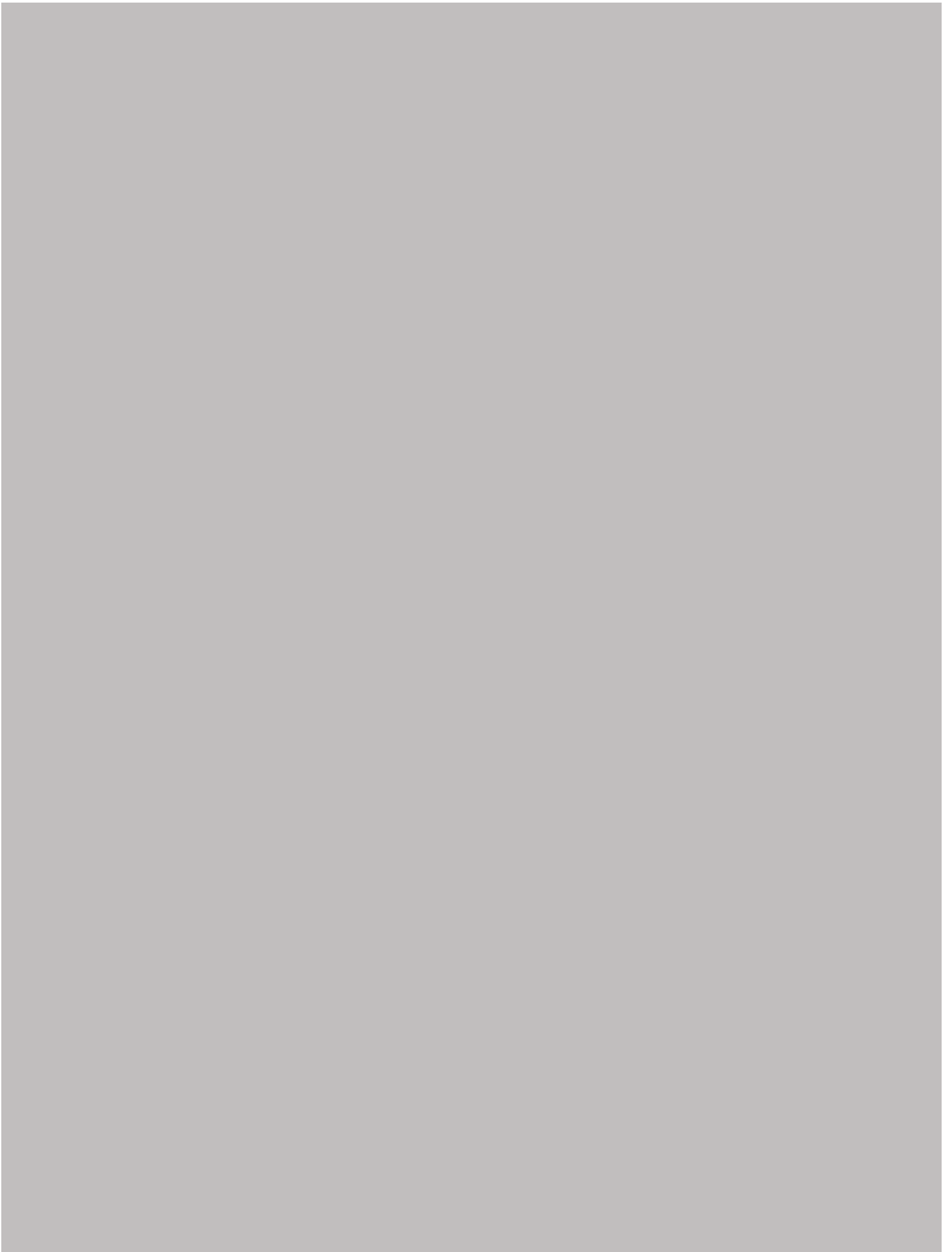
Stay in the loop with the latest on trauma recovery and therapy in Calgary. This roundup features fresh insights from PTSD recovery trends to what's new in trauma care for 2025. Catch up on local perspectives and expert ideas shaping mental wellness - no hype, just updates that matter to Calgarians facing trauma's effects!

Entity	Description	Source
PTSD Alliance	A group of professional and advocacy organizations that provide educational resources to individuals and families affected by PTSD.	<a href="#">source</a>
Sidran Institute	A nonprofit organization that helps people understand, recover from, and treat traumatic stress, dissociative disorders, and co-occurring conditions such as addictions, self-injury, and suicidality.	<a href="#">source</a>
Gift From Within	An international nonprofit organization for survivors of trauma and victimization that develops and disseminates educational materials, including videotapes, articles, books, and other resources.	<a href="#">source</a>
International Society for Traumatic Stress Studies (ISTSS)	An international, interdisciplinary professional organization that promotes advancement and exchange of knowledge about traumatic stress.	<a href="#">source</a>
National Child Traumatic Stress Network (NCTSN)	A network dedicated to improving access to care, treatment, and services for traumatized children and adolescents exposed to traumatic events.	<a href="#">source</a>
PTSD Foundation of America	A nonprofit organization dedicated to mentoring combat veterans and their families with post-traumatic stress.	<a href="#">source</a>
Real Warriors Campaign	A multimedia public awareness campaign designed to encourage help-seeking behavior among service members, veterans, and military families coping with invisible wounds.	<a href="#">source</a>

<b>Entity</b>	<b>Description</b>	<b>Source</b>
Veterans Crisis Line	A free, confidential resource that connects veterans 24/7 with trained responders, many of whom are veterans themselves.	source
Make the Connection	A public awareness campaign that provides personal testimonials and resources to help veterans discover ways to improve their lives.	source
National Suicide Prevention Lifeline	A national network of local crisis centers providing 24/7, free, and confidential support for people in distress, including those suffering from PTSD.	source

## Canadian PTSD Therapy Organizations

- **PTSD Association of Canada** – A non-profit organization dedicated to educating and supporting individuals affected by post-traumatic stress disorder (PTSD), as well as those at risk and their caregivers. [source](#)
- **Wounded Warriors Canada** – A national mental health service provider offering support to trauma-exposed professionals and their families, focusing on programs related to PTSD and operational stress injuries. [source](#)
- **Canadian Mental Health Association (CMHA)** – One of Canada's oldest voluntary organizations, providing resources, programs, and advocacy for mental health, including support for PTSD. [source](#)
- **Project Trauma Support** – A Canadian program addressing PTSD and operational stress injuries in military personnel, veterans, and first responders, promoting post-traumatic growth. [source](#)
- **PTSD Coach Canada** – A mobile application developed by Veterans Affairs Canada to help manage PTSD symptoms, offering reliable resources and tools for users. [source](#)
- **The Royal Canadian Legion** – Provides support to veterans and their families, including assistance with PTSD and other mental health challenges. [source](#)
- **Out of the Storm** – An online resource offering support and information for individuals affected by complex post-traumatic stress disorder (CPTSD). [source](#)
- **Traumatology Institute (Canada)** – An organization focused on after-trauma care, providing training and consulting services related to PTSD and trauma recovery. [source](#)
- **Anxiety Canada** – Offers resources and support for individuals dealing with anxiety disorders, including PTSD, aiming to improve mental health across Canada. [source](#)
- **Badge of Life Canada** – A non-profit organization dedicated to supporting police and corrections personnel dealing with PTSD and operational stress injuries. [source](#)





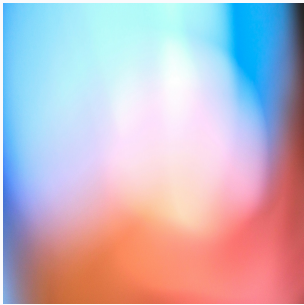
## Canadian PTSD Therapy Help

Entity	Description	Source
Veterans Affairs Canada	Offers specialized services for the treatment of operational stress injuries such as PTSD, supporting veterans and their families.	<a href="#">source</a>
Operational Stress Injury Social Support (OSISS) Program	A peer support network for Canadian veterans dealing with operational stress injuries, including PTSD.	<a href="#">source</a>
Canadian Institute for Public Safety Research and Treatment (CIPSRT)	Focuses on research and treatment related to public safety personnel, addressing issues like PTSD.	<a href="#">source</a>
Mental Health Commission of Canada	Provides national leadership and resources to improve mental health systems, including support for PTSD initiatives.	<a href="#">source</a>
Canadian Psychological Association	Represents psychologists in Canada and offers resources related to mental health, including PTSD.	<a href="#">source</a>
Canadian Psychiatric Association	A national association advocating for the highest standards in psychiatric care, including PTSD treatment.	<a href="#">source</a>
Mood Disorders Society of Canada	Provides support and advocacy for individuals with mood disorders, including those experiencing PTSD.	<a href="#">source</a>
National Police Federation	Represents RCMP members and addresses mental health concerns, including PTSD, among officers.	<a href="#">source</a>
The Royal Canadian Legion	Assists veterans and their families with various services, including support for PTSD and mental health.	<a href="#">source</a>
Women in Defence and Security (WiDS)	Supports women in defense and security sectors, offering resources related to mental health and PTSD.	<a href="#">source</a>



## Psychologist Calgary | PTSD Recovery News 2025

In recent years, the field of PTSD treatment has seen significant advancements, and Calgary is no exception to these exciting developments.. As we look towards 2025, it's essential to consider the future directions that PTSD treatment might take, especially in a city known for its commitment to mental health and well-being.

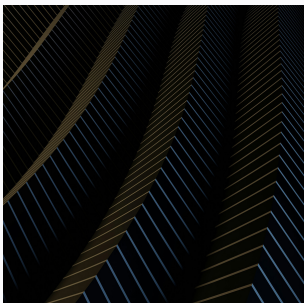


Posted by on 2025-03-05

## Psychologist Calgary | Trauma Therapy Today 2025

As we venture into 2025, the landscape of trauma therapy is undergoing significant transformations, especially in vibrant cities like Calgary.. The role of psychologists in addressing trauma has never been more crucial, and emerging trends promise to reshape how therapy is delivered, making it more effective for individuals seeking healing and recovery.

One of the most notable trends is the integration of technology into trauma therapy practices.



Posted by on 2025-03-05

## About Post-traumatic stress disorder

"PTSD" and "Post traumatic" redirect here. For the Mike Shinoda album, see Post Traumatic. For other uses, see PTSD (disambiguation). For C-PTSD, see Complex post-traumatic stress disorder.

Post-traumatic stress disorder	
<b>Specialty</b>	Psychiatry, clinical psychology
<b>Symptoms</b>	Disturbing thoughts, feelings, or dreams related to the event; mental or physical distress to trauma-related cues; efforts to avoid trauma-related situations; increased fight-or-flight response <sup>[1]</sup>
<b>Complications</b>	Suicide; cardiac, respiratory, musculoskeletal, gastrointestinal, and immunological disorders <sup>[2]</sup>
<b>Duration</b>	> 1 month <sup>[a]</sup>
<b>Causes</b>	Exposure to a traumatic event <sup>[1]</sup>
<b>Diagnostic method</b>	Based on symptoms <sup>[2]</sup>
<b>Treatment</b>	Counseling, medication, <sup>[4]</sup> MDMA-assisted psychotherapy, <sup>[5]</sup> selective serotonin reuptake inhibitors <sup>[6]</sup>
<b>Frequency</b>	8.7% (lifetime risk); 3.5% (12-month risk) (US) <sup>[7]</sup>

**Post-traumatic stress disorder (PTSD)**<sup>[b]</sup> is a mental and behavioral disorder<sup>[8]</sup> that develops from experiencing a traumatic event, such as sexual assault, domestic violence, child abuse, warfare and its associated traumas, natural disaster, traffic collision, or other threats on a person's life or well-being.<sup>[1][9]</sup> Symptoms may include disturbing thoughts, feelings, or dreams related to the events, mental or physical distress to trauma-related cues, attempts to avoid trauma-related cues, alterations in the way a person thinks and feels, and an increase in the fight-or-flight response.<sup>[1][4][10]</sup> These symptoms last for more than a month after the event and can include triggers such as misophonia.<sup>[1]</sup> Young children are less likely to show distress, but instead may express their memories through play.<sup>[1]</sup>

A person with PTSD is at a higher risk of suicide and intentional self-harm.<sup>[2][11]</sup> PTSD may provoke violent behavior by the sufferer.

Most people who experience traumatic events do not develop PTSD.<sup>[2]</sup> People who experience interpersonal violence such as rape, other sexual assaults, being kidnapped, stalking, physical abuse by an intimate partner, and childhood abuse are more likely to develop PTSD than those who experience non-assault based trauma, such as accidents and natural disasters.<sup>[12][13][14]</sup> Those who experience prolonged trauma, such as slavery, concentration camps, or chronic domestic abuse, may develop complex post-traumatic stress disorder (C-PTSD). C-PTSD is similar to PTSD, but has a distinct effect on a person's emotional regulation and core identity.<sup>[15][16]</sup>

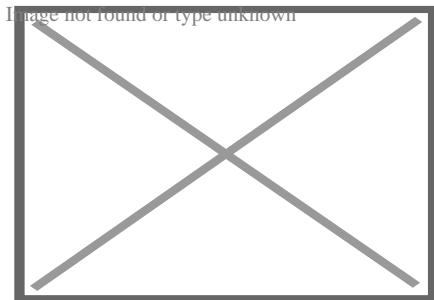
Prevention may be possible when counselling is targeted at those with early symptoms, but is not effective when provided to all trauma-exposed individuals regardless of whether symptoms are present.<sup>[2]</sup> The main treatments for people with PTSD are counselling (psychotherapy) and medication.<sup>[4][17]</sup> Antidepressants of the SSRI or SNRI type are the first-line medications used for PTSD and are moderately beneficial for about half of people.<sup>[6]</sup> Benefits from medication are less than those seen with counselling.<sup>[2]</sup> It is not known whether using medications and counselling together has greater benefit than either method separately.<sup>[2][18]</sup> Medications, other than some SSRIs or SNRIs, do not have enough evidence to support their use and, in the case of benzodiazepines, may worsen outcomes.<sup>[19][20]</sup>

In the United States, about 3.5% of adults have PTSD in a given year, and 9% of people develop it at some point in their life.<sup>[1]</sup> In much of the rest of the world, rates during a given year are between 0.5% and 1%.<sup>[1]</sup> Higher rates may occur in regions of armed conflict.<sup>[2]</sup> It is more common in women than men.<sup>[4][21]</sup>

Symptoms of trauma-related mental disorders have been documented since at least the time of the ancient Greeks.<sup>[22]</sup> A few instances of evidence of post-traumatic illness have been argued to exist from the seventeenth and eighteenth centuries, such as the diary of Samuel Pepys, who described intrusive and distressing symptoms following the 1666 Fire of London.<sup>[23]</sup> During the world wars, the condition was known under various terms, including 'shell shock', 'war nerves', neurasthenia and 'combat neurosis'.<sup>[24][25]</sup> The term "post-traumatic stress disorder" came into use in the 1970s, in large part due to the diagnoses of U.S. military veterans of the Vietnam War.<sup>[26]</sup> It was officially recognized by the American Psychiatric Association in 1980 in the third edition of the *Diagnostic and Statistical Manual of Mental Disorders* (DSM-III).<sup>[27]</sup>

## Signs and symptoms

[edit]

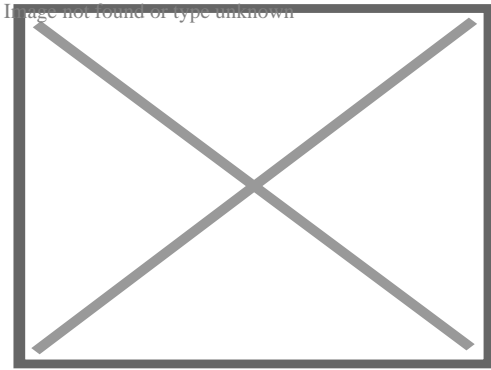


Service members use art to relieve PTSD symptoms.

See also: Psychological stress and sleep

Symptoms of PTSD generally begin within the first three months after the inciting traumatic event, but may not begin until years later.<sup>[28][4]</sup> In the typical case, the individual with PTSD persistently avoids either trauma-related thoughts and emotions or discussion of the traumatic event and may even have amnesia of the event (dissociative amnesia).<sup>[1]</sup> However, the event is commonly relived by the individual through intrusive, recurrent recollections, dissociative episodes of reliving the trauma ("flashbacks"), and nightmares (50 to 70%).<sup>[29][30][31]</sup> While it is common to have





*No quieren* (*They do not want to*) by Francisco Goya (1746–1828) depicts an elderly woman wielding a knife in defense of a younger woman being assaulted by a soldier.<sup>[46]</sup>

Persons considered at risk for developing PTSD include combat military personnel, survivors of natural disasters, concentration camp survivors, and survivors of violent crime. Persons employed in occupations that expose them to violence (such as soldiers) or disasters (such as emergency service workers) are also at risk.<sup>[47]</sup> Other occupations at an increased risk include police officers, firefighters,<sup>[48]</sup> first responders, ambulance personnel, health care professionals, train drivers, divers, journalists, and sailors, as well as people who work at banks, post offices, or in stores.<sup>[49]</sup> The intensity of the traumatic event is also associated with a subsequent risk of developing PTSD, with experiences related to witnessed death, or witnessed or experienced torture, injury, bodily disfigurement, traumatic brain injury being highly associated with the development of PTSD. Similarly, experiences that are unexpected or in which the victim cannot escape are also associated with a high risk of developing PTSD.<sup>[37]</sup>

## Trauma

[edit]

Main article: Psychological trauma

See also: Psychological resilience

PTSD has been associated with a wide range of traumatic events. The risk of developing PTSD after a traumatic event varies by trauma type<sup>[50]</sup><sup>[51]</sup> and is the highest following exposure to sexual violence (11.4%), particularly rape (19.0%).<sup>[52]</sup> Men are more likely to experience a traumatic event (of any type), but women are more likely to experience the kind of high-impact traumatic event that can lead to PTSD, such as interpersonal violence and sexual assault.<sup>[53]</sup>

Motor vehicle collision survivors, both children and adults, are at an increased risk of PTSD.<sup>[54]</sup><sup>[55]</sup> Globally, about 2.6% of adults are diagnosed with PTSD following a non-life-threatening traffic accident, and a similar proportion of children develop PTSD.<sup>[52]</sup> Risk of PTSD almost doubles to 4.6% for life-threatening auto accidents.<sup>[52]</sup> Females were more likely to be diagnosed with PTSD following a road traffic accident, whether the accident occurred during childhood or adulthood.<sup>[54]</sup><sup>[55]</sup>

Post-traumatic stress reactions have been studied in children and adolescents.<sup>[56]</sup> The rate of PTSD might be lower in children than adults, but in the absence of therapy, symptoms may continue for decades.<sup>[57]</sup> One estimate suggests that the proportion of children and adolescents having PTSD in a non-wartorn population in a developed country may be 1% compared to 1.5% to 3% of adults.<sup>[57]</sup> On average, 16% of children exposed to a traumatic event develop PTSD, with the incidence varying according to type of exposure and gender.<sup>[58]</sup> Similar to the adult population, risk factors for PTSD in children include: female gender, exposure to disasters (natural or man-made), negative coping behaviors, and/or lacking proper social support systems.<sup>[59]</sup>

Predictor models have consistently found that childhood trauma, chronic adversity, neurobiological differences, and familial stressors are associated with risk for PTSD after a traumatic event in adulthood.<sup>[60][61][62]</sup> It has been difficult to find consistently aspects of the events that predict, but peritraumatic dissociation has been a fairly consistent predictive indicator of the development of PTSD.<sup>[63]</sup> Proximity to, duration of, and severity of the trauma make an impact. It has been speculated that interpersonal traumas cause more problems than impersonal ones,<sup>[64]</sup> but this is controversial.<sup>[65]</sup> The risk of developing PTSD is increased in individuals who are exposed to physical abuse, physical assault, or kidnapping.<sup>[66][67]</sup> Women who experience physical violence are more likely to develop PTSD than men.<sup>[66]</sup>

## **Intimate partner and sexual violence**

[edit]

Main article: Intimate partner violence

See also: Rape trauma syndrome

An individual that has been exposed to domestic violence is predisposed to the development of PTSD. There is a strong association between the development of PTSD in mothers that experienced domestic violence during the perinatal period of their pregnancy.<sup>[68]</sup>

Those who have experienced sexual assault or rape may develop symptoms of PTSD.<sup>[69][70]</sup> The likelihood of sustained symptoms of PTSD is higher if the rapist confined or restrained the person, if the person being raped believed the rapist would kill them, the person who was raped was very young or very old, and if the rapist was someone they knew. The likelihood of sustained severe symptoms is also higher if people around the survivor ignore (or are ignorant of) the rape or blame the rape survivor.<sup>[71]</sup>

## **War-related trauma, refugees**

[edit]

See also: Veteran and Refugee health

Military service in combat is a risk factor for developing PTSD.<sup>[37]</sup> Around 22% of people exposed to combat develop PTSD; in about 25% of military personnel who develop PTSD, its appearance is delayed.<sup>[37]</sup>



Refugees are also at an increased risk for PTSD due to their exposure to war, hardships, and traumatic events. The rates for PTSD within refugee populations range from 4% to 86%.[<sup>72</sup>] While the stresses of war affect everyone involved, displaced persons have been shown to be more so than others.[<sup>73</sup>]

Challenges related to the overall psychosocial well-being of refugees are complex and individually nuanced. Refugees have reduced levels of well-being and a high rate of mental distress due to past and ongoing trauma. Groups that are particularly affected and whose needs often remain unmet are women, older people, and unaccompanied minors.[<sup>74</sup>] Post-traumatic stress and depression in refugee populations also tend to affect their educational success.[<sup>74</sup>]

### **Unexpected death of a loved one**

[edit]

Sudden, unexpected death of a loved one is the most common traumatic event type reported in cross-national studies.[<sup>52</sup>][<sup>75</sup>] However, the majority of people who experience this type of event will not develop PTSD. An analysis from the WHO World Mental Health Surveys found a 5.2% risk of developing PTSD after learning of the unexpected death of a loved one.[<sup>75</sup>] Because of the high prevalence of this type of traumatic event, unexpected death of a loved one accounts for approximately 20% of PTSD cases worldwide.[<sup>52</sup>]

### **Life-threatening and/or severe illness**

[edit]

Medical conditions associated with an increased risk of PTSD include cancer,[<sup>76</sup>][<sup>77</sup>][<sup>78</sup>] heart attack,[<sup>79</sup>] and stroke.[<sup>80</sup>] 22% of cancer survivors present with lifelong PTSD like symptoms.[<sup>81</sup>] Intensive-care unit (ICU) hospitalization is also a risk factor for PTSD.[<sup>82</sup>] Some women experience PTSD from their experiences related to breast cancer and mastectomy.[<sup>83</sup>][<sup>84</sup>][<sup>76</sup>] Loved ones of those who experience life-threatening illnesses are also at risk for developing PTSD, such as parents of a child with chronic illnesses.[<sup>85</sup>]

### **Psychosis spectrum conditions**

[edit]

Research exists which demonstrates that survivors of psychotic episodes, which exist in diseases such as schizophrenia, schizoaffective disorder, bipolar I disorder, and others, are at greater risk of developing PTSD. This is often due to the experiences one may have during and after psychosis. Such traumatic experiences include, but are not limited to, experiences in psychiatric hospitals, police interactions, social stigma, and embarrassment due to psychotic behavior, suicidal behavior and attempts, distressing delusions and hallucinations, and the fear of losing control or actual loss

of control. The incidence of PTSD in survivors of psychosis may be as low as 11% and as high at 67%.<sup>[86][87][88]</sup>

## Cancer

[edit]

Prevalence estimates of

cancer<sup>[89]</sup> PTSD range between 7% and 14%,<sup>[89]</sup> with an additional 10% to 20% of patients experiencing subsyndromal post-traumatic stress symptoms (PTSS).<sup>[90][91]</sup> Both PTSD and PTSS have been associated with increased distress and impaired quality of life,<sup>[92]</sup> and have been reported in newly diagnosed patients as well as in long<sup>[93]</sup> survivors.<sup>[93]</sup>

The PTSD Field Trials for the *Diagnostic and Statistical Manual, Fourth Edition* (DSM-IV), revealed that 22% of cancer survivors present with lifetime cancer-related PTSD (CR-PTSD), endorsing cancer diagnosis and treatment as a traumatic stressor.<sup>[94]</sup>

Therefore, as the number of people diagnosed with cancer increases and cancer survivorship improves, cancer-related PTSD becomes a more prominent issue, and thus, providing for cancer patients' physical and psychological needs becomes increasingly important.<sup>[95]</sup>

Evidence<sup>[96][97][98]</sup> treatments such as eye movement desensitization and reprocessing (EMDR) and cognitive behavioral therapy (CBT) are available for PTSD, and indeed, there have been promising reports of their effectiveness in cancer patients.<sup>[96][97][98]</sup>

## Pregnancy-related trauma

[edit]

Main article: Childbirth-related post-traumatic stress disorder

Women who experience miscarriage are at risk of PTSD.<sup>[99][100][101]</sup> Those who experience subsequent miscarriages have an increased risk of PTSD compared to those experiencing only one.<sup>[99]</sup> PTSD can also occur after childbirth and the risk increases if a woman has experienced trauma prior to the pregnancy.<sup>[102][103]</sup> Prevalence of PTSD following normal childbirth (that is, excluding stillbirth or major complications) is estimated to be between 2.8 and 5.6% at six weeks postpartum,<sup>[104]</sup> with rates dropping to 1.5% at six months postpartum.<sup>[104][105]</sup> Symptoms of PTSD are common following childbirth, with prevalence of 24–30.1%<sup>[104]</sup> at six weeks, dropping to 13.6% at six months.<sup>[106]</sup> Emergency childbirth is also associated with PTSD.<sup>[107]</sup>

## Natural disasters

[edit]

This section is an excerpt from Extreme weather post-traumatic stress disorder.[edit]



This article **is written like a personal reflection, personal essay, or argumentative essay** that states a Wikipedia editor's personal feelings or presents an original argument about a topic. Please help improve it by rewriting it in an encyclopedic style. *(March 2023)* (*Learn how and when to remove this message*)

Extreme weather events can have a significant impact on mental health, particularly in the form of post-traumatic stress disorder (PTSD). Extreme weather post-traumatic stress disorder occurs when someone experiences the symptoms of PTSD due to extreme weather events, such as tornadoes, hurricanes, floods, and wildfires.<sup>[108]</sup> There has been increasing frequency and severity of these events due to climate change, causing an increase in such cases.

## Genetics

[edit]

Main article: Genetics of post-traumatic stress disorder

There is evidence that susceptibility to PTSD is hereditary. Approximately 30% of the variance in PTSD is caused from genetics alone.<sup>[63]</sup> For twin pairs exposed to combat in Vietnam, having a monozygotic (identical) twin with PTSD was associated with an increased risk of the co-twin's having PTSD compared to twins that were dizygotic (non-identical twins).<sup>[109]</sup> Women with a smaller hippocampus might be more likely to develop PTSD following a traumatic event based on preliminary findings.<sup>[110]</sup> Research has also found that PTSD shares many genetic influences common to other psychiatric disorders. Panic and generalized anxiety disorders and PTSD share 60% of the same genetic variance. Alcohol, nicotine, and drug dependence share greater than 40% genetic similarities.<sup>[63]</sup>

## Pathophysiology

[edit]

## Neuroendocrinology

[edit]

PTSD symptoms may result when a traumatic event causes an over-reactive adrenaline response, which creates deep neurological patterns in the brain. These patterns can persist long after the event that triggered the fear, making an individual hyper-responsive to future fearful situations.<sup>[32][111]</sup> During traumatic experiences, the high levels of stress hormones secreted suppress

hypothalamic activity that may be a major factor toward the development of PTSD.<sup>[112]</sup>

PTSD causes biochemical changes in the brain and body, that differ from other psychiatric disorders such as major depression. Individuals diagnosed with PTSD respond more strongly to a dexamethasone suppression test than individuals diagnosed with clinical depression.<sup>[113][114]</sup>

Most people with PTSD show a low secretion of cortisol and high secretion of catecholamines in urine,<sup>[115]</sup> with a norepinephrine/cortisol ratio consequently higher than comparable non-diagnosed individuals.<sup>[116]</sup> This is in contrast to the normative fight-or-flight response, in which both catecholamine and cortisol levels are elevated after exposure to a stressor.<sup>[117]</sup>

Brain catecholamine levels are high,<sup>[118]</sup> and corticotropin-releasing factor (CRF) concentrations are high.<sup>[119][120]</sup> Together, these findings suggest abnormality in the hypothalamic-pituitary-adrenal (HPA) axis.

The maintenance of fear has been shown to include the HPA axis, the locus coeruleus-noradrenergic systems, and the connections between the limbic system and frontal cortex. The HPA axis that coordinates the hormonal response to stress,<sup>[121]</sup> which activates the LC-noradrenergic system, is implicated in the over-consolidation of memories that occurs in the aftermath of trauma.<sup>[122]</sup> This over-consolidation increases the likelihood of one's developing PTSD. The amygdala is responsible for threat detection and the conditioned and unconditioned fear responses that are carried out as a response to a threat.<sup>[63]</sup>

The HPA axis is responsible for coordinating the hormonal response to stress.<sup>[63]</sup> Given the strong cortisol suppression to dexamethasone in PTSD, HPA axis abnormalities are likely predicated on strong negative feedback inhibition of cortisol, itself likely due to an increased sensitivity of glucocorticoid receptors.<sup>[123]</sup>

PTSD has been hypothesized to be a maladaptive learning pathway to fear response through a hypersensitive, hyperreactive, and hyperresponsive HPA axis.<sup>[124]</sup>

Low cortisol levels may predispose individuals to PTSD: Following war trauma, Swedish soldiers serving in Bosnia and Herzegovina with low pre-service salivary cortisol levels had a higher risk of reacting with PTSD symptoms, following war trauma, than soldiers with normal pre-service levels.<sup>[125]</sup> Because cortisol is normally important in restoring homeostasis after the stress response, it is thought that trauma survivors with low cortisol experience a poorly contained—that is, longer and more distressing—response, setting the stage for PTSD.

It is thought that the locus coeruleus-noradrenergic system mediates the over-consolidation of fear memory. High levels of cortisol reduce noradrenergic activity, and because people with PTSD tend to have reduced levels of cortisol, it has been proposed that individuals with PTSD cannot regulate the increased noradrenergic response to traumatic stress.<sup>[112]</sup> Intrusive memories and conditioned fear responses are thought to be a result of the response to associated triggers. Neuropeptide Y (NPY) has been reported to reduce the release of norepinephrine and has been demonstrated to have anxiolytic properties in animal models. Studies have shown people with PTSD demonstrate reduced levels of NPY, possibly indicating their increased anxiety levels.<sup>[63]</sup>

Other studies indicate that people with PTSD have chronically low levels of serotonin, which contributes to the commonly associated behavioral symptoms such as anxiety, ruminations, irritability, aggression, suicidality, and impulsivity.<sup>[126]</sup> Serotonin also contributes to the stabilization of glucocorticoid production.

Dopamine levels in a person with PTSD can contribute to symptoms: low levels can contribute to anhedonia, apathy, impaired attention, and motor deficits; high levels can contribute to psychosis, agitation, and restlessness.<sup>[126]</sup>

Studies have also described elevated concentrations of the thyroid hormone triiodothyronine in PTSD.<sup>[127]</sup> This kind of type 2 allostatic adaptation may contribute to increased sensitivity to catecholamines and other stress mediators.

Hyperresponsiveness in the norepinephrine system can also be caused by continued exposure to high stress. Overactivation of norepinephrine receptors in the prefrontal cortex can be connected to the flashbacks and nightmares frequently experienced by those with PTSD. A decrease in other norepinephrine functions (awareness of the current environment) prevents the memory mechanisms in the brain from processing the experience, and emotions the person is experiencing during a flashback are not associated with the current environment.<sup>[126]</sup>

There is considerable controversy within the medical community regarding the neurobiology of PTSD. A 2012 review showed no clear relationship between cortisol levels and PTSD. The majority of reports indicate people with PTSD have elevated levels of corticotropin-releasing hormone, lower basal cortisol levels, and enhanced negative feedback suppression of the HPA axis by dexamethasone.<sup>[63][128]</sup>

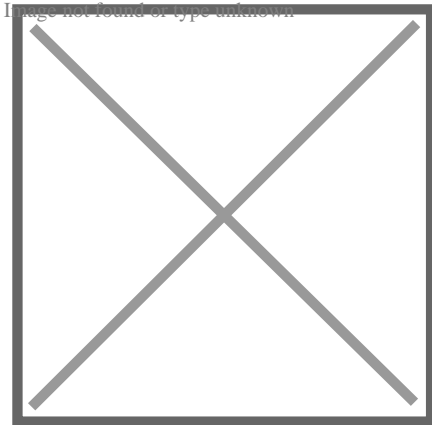
## Neuroimmunology

[edit]

Studies on the peripheral immune have found dysfunction with elevated cytokine levels and a higher risk of immune-related chronic diseases among individuals with PTSD.<sup>[129]</sup> Neuroimmune dysfunction has also been found in PTSD, raising the possibility of a suppressed central immune response due to reduced activity of microglia in the brain in response to immune challenges. Individuals with PTSD, compared to controls, have lower increase in a marker of microglial activation (18-kDa translocator protein) following lipopolysaccharide administration.<sup>[130]</sup> This neuroimmune suppression is also associated with greater severity of anhedonic symptoms. Researchers suggest that treatments aimed at restoring neuroimmune function could be beneficial for alleviating PTSD symptoms.<sup>[130]</sup>

# Neuroanatomy

[edit]



Regions of the brain associated with stress and post-traumatic stress disorder<sup>[131]</sup>

A meta-analysis of structural MRI studies found an association with reduced total brain volume, intracranial volume, and volumes of the hippocampus, insula cortex, and anterior cingulate<sup>[132]</sup>. Much of this research stems from PTSD in those exposed to the Vietnam War.<sup>[133][134]</sup>

People with PTSD have decreased brain activity in the dorsal and rostral anterior cingulate cortices and the ventromedial prefrontal cortex, areas linked to the experience and regulation of emotion.<sup>[135]</sup>

The amygdala is strongly involved in forming emotional memories, especially fear-related memories. During high stress, the hippocampus, which is associated with placing memories in the correct context of space and time and memory recall, is suppressed. According to one theory, this suppression may be the cause of the flashbacks that can affect people with PTSD. When someone with PTSD undergoes stimuli similar to the traumatic event, the body perceives the event as occurring again because the memory was never properly recorded in the person's memory.<sup>[63][136]</sup>

The amygdalocentric model of PTSD proposes that the amygdala is very much aroused and insufficiently controlled by the medial prefrontal cortex and the hippocampus, in particular during extinction.<sup>[137]</sup> This is consistent with an interpretation of PTSD as a syndrome of deficient extinction ability.<sup>[137][138]</sup>

The basolateral nucleus (BLA) of the amygdala is responsible for the comparison and development of associations between unconditioned and conditioned responses to stimuli, which results in the fear conditioning present in PTSD. The BLA activates the central nucleus (CeA) of the amygdala, which elaborates the fear response, (including behavioral response to threat and elevated startle response). Descending inhibitory inputs from the medial prefrontal cortex (mPFC) regulate the transmission from the BLA to the CeA, which is hypothesized to play a role in the

extinction of conditioned fear responses.[<sup>63</sup>]

While as a whole, amygdala hyperactivity is reported by meta analysis of functional neuroimaging in PTSD, there is a large degree of heterogeneity, more so than in social anxiety disorder or phobic disorder. Comparing dorsal (roughly the CeA) and ventral (roughly the BLA) clusters, hyperactivity is more robust in the ventral cluster, while hypoactivity is evident in the dorsal cluster. The distinction may explain the blunted emotions in PTSD (via desensitization in the CeA) as well as the fear related component.[<sup>139</sup>]

In a 2007 study, Vietnam War combat veterans with PTSD showed a 20% reduction in the volume of their hippocampus compared with veterans who did not have such symptoms.[<sup>140</sup>] This finding was not replicated in chronic PTSD patients traumatized at an air show plane crash in 1988 (Ramstein, Germany).[<sup>141</sup>]

Evidence suggests that endogenous cannabinoid levels are reduced in PTSD, particularly anandamide, and that cannabinoid receptors (CB1) are increased in order to compensate[<sup>142</sup>] There appears to be a link between increased CB1 receptor availability in the amygdala and abnormal threat processing and hyperarousal, but not dysphoria, in trauma survivors.

A 2020 study found no evidence for conclusions from prior research that suggested low IQ is a risk factor for developing PTSD.[<sup>143</sup>]

## Diagnosis

[edit]

PTSD can be difficult to diagnose, because of:

- the subjective nature of most of the diagnostic criteria (although this is true for many mental disorders);
- the potential for over-reporting, e.g., while seeking disability benefits, or when PTSD could be a mitigating factor at criminal sentencing[<sup>144</sup>]
- the potential for under-reporting, e.g., stigma, pride, fear that a PTSD diagnosis might preclude certain employment opportunities;
- symptom overlap with other mental disorders such as obsessive compulsive disorder and generalized anxiety disorder;[<sup>145</sup>]
- association with other mental disorders such as major depressive disorder and generalized anxiety disorder;
- substance use disorders, which often produce some of the same signs and symptoms as PTSD; and
- substance use disorders can increase vulnerability to PTSD or exacerbate PTSD symptoms or both; and
- PTSD increases the risk for developing substance use disorders.[<sup>146</sup>]
- the differential expression of symptoms culturally (specifically with respect to avoidance and numbing symptoms, distressing dreams, and somatic symptoms)[<sup>147</sup>]

# Screening

[edit]

There are a number of PTSD screening instruments for adults, such as the PTSD Checklist for *DSM-5* (PCL-5)<sup>[148][149]</sup> and the Primary Care PTSD Screen for *DSM-5* (PC-PTSD-5).<sup>[150]</sup> The 17 item PTSD checklist is also capable of monitoring the severity of symptoms and the response to treatment.<sup>[37]</sup>

There are also several screening and assessment instruments for use with children and adolescents. These include the Child PTSD Symptom Scale (CPSS),<sup>[151][152]</sup> Child Trauma Screening Questionnaire,<sup>[153][154]</sup> and UCLA Post-traumatic Stress Disorder Reaction Index for *DSM-IV*.<sup>[155][156]</sup>

In addition, there are also screening and assessment instruments for caregivers of very young children (six years of age and younger). These include the Young Child PTSD Screen,<sup>[157]</sup> the Young Child PTSD Checklist,<sup>[157]</sup> and the Diagnostic Infant and Preschool Assessment.<sup>[158]</sup>

# Assessment

[edit]

Evidence-based assessment principles, including a multimethod assessment approach, form the foundation of PTSD assessment.<sup>[159][160][161]</sup>

:ÄfÆ'Ä†â€™Äfâ€ Äçâ,-â,,çÄfÆ'Äçâ,-Ä ÄfÄçÄçâ€šÄ-Äçâ€žÄçÄfÆ'Ä†â€™ÄfÄçÄçâ€šÄ-Ä,Ä ÄfÆ

Those who conduct assessments for PTSD may use various clinician-administered interviews and instruments to provide an official PTSD diagnosis.<sup>[162]</sup> Some commonly used, reliable, and valid assessment instruments for PTSD diagnosis, in accordance with the *DSM-5*, include the Clinician-Administered PTSD Scale for the *DSM-5* (CAPS-5), PTSD Symptom Scale Interview (PSS-I-5), and Structured Clinical Interview for *DSM-5* – PTSD Module (SCID-5 PTSD Module).<sup>[163][164][165][166]</sup>

# In the DSM and ICD

[edit]

PTSD was classified as an anxiety disorder in the *DSM-IV*, but has since been reclassified as a "trauma- and stressor-related disorder" in the *DSM-5*.<sup>[1]</sup> The *DSM-5* diagnostic criteria for PTSD



include four symptom clusters: re-experiencing, avoidance, negative alterations in cognition/mood, and alterations in arousal and reactivity.<sup>[1][4]</sup>

The International Classification of Diseases and Related Health Problems, 10th Revision (ICD-10) classifies PTSD under "Reaction to severe stress, and adjustment disorders."<sup>[167]</sup> The ICD-10 criteria for PTSD include re-experiencing, avoidance, and either increased reactivity or inability to recall certain details related to the event.<sup>[167]</sup>

The ICD-11 diagnostic description for PTSD contains three components or symptom groups (1) re-experiencing, (2) avoidance, and (3) heightened sense of threat.<sup>[168][169]</sup> ICD-11 no longer includes verbal thoughts about the traumatic event as a symptom.<sup>[169]</sup> There is a predicted lower rate of diagnosed PTSD using ICD-11 compared to ICD-10 or DSM-5.<sup>[169]</sup> ICD-11 also proposes identifying a distinct group with complex post-traumatic stress disorder (CPTSD), who have more often experienced several or sustained traumas and have greater functional impairment than those with PTSD.<sup>[169]</sup>

## Differential diagnosis

[edit]

A diagnosis of PTSD requires that the person has been exposed to an extreme stressor. Any stressor can result in a diagnosis of adjustment disorder and it is an appropriate diagnosis for a stressor and a symptom pattern that does not meet the criteria for PTSD.

The symptom pattern for acute stress disorder must occur and be resolved within four weeks of the trauma. If it lasts longer, and the symptom pattern fits that characteristic of PTSD, the diagnosis may be changed.<sup>[30]</sup>

Obsessive–compulsive disorder (OCD) may be diagnosed for intrusive thoughts that are recurring but not related to a specific traumatic event.<sup>[30]</sup>

In extreme cases of prolonged, repeated traumatization where there is no viable chance of escape, survivors may develop complex post-traumatic stress disorder.<sup>[170]</sup> This occurs as a result of layers of trauma rather than a single traumatic event, and includes additional symptomatology, such as the loss of a coherent sense of self.<sup>[171]</sup>

## Prevention

[edit]

See also: Traumatic memories

Modest benefits have been seen from early access to cognitive behavioral therapy. Critical incident stress management has been suggested as a means of preventing PTSD, but subsequent studies suggest the likelihood of its producing negative outcomes.<sup>[172][173]</sup> A 2019 Cochrane

review did not find any evidence to support the use of an intervention offered to everyone, and that "multiple session interventions may result in worse outcome than no intervention for some individuals."<sup>[174]</sup> The World Health Organization recommends against the use of benzodiazepines and antidepressants in for acute stress (symptoms lasting less than one month)<sup>[175]</sup> Some evidence supports the use of hydrocortisone for prevention in adults, although there is limited or no evidence supporting propranolol, escitalopram, temazepam, or gabapentin.<sup>[176][177]</sup>

## Psychological debriefing

[edit]

See also: Debriefing § Crisis intervention

Trauma-exposed individuals often receive treatment called *psychological debriefing* in an effort to prevent PTSD, which consists of interviews that are meant to allow individuals to directly confront the event and share their feelings with the counselor and to help structure their memories of the event.<sup>[178]</sup> However, several meta-analyses find that psychological debriefing is unhelpful, is potentially harmful and does not reduce the future risk of developing PTSD.<sup>[37][178][179][180]</sup> This is true for both single-session debriefing and multiple session interventions.<sup>[174]</sup> As of 2017 the American Psychological Association assessed psychological debriefing as *No Research Support/Treatment is Potentially Harmful*.<sup>[181]</sup>

## Early intervention

[edit]

Trauma focused intervention delivered within days or weeks of the potentially traumatic event has been found to decrease PTSD symptoms.<sup>[182]</sup> Similar to psychological debriefing, the goal of early intervention is to lessen the intensity and frequency of stress symptoms, with the aim of preventing new-onset or relapsed mental disorders and further distress later in the healing process.<sup>[183]</sup>

## Risk-targeted interventions

[edit]

For one such method, see trauma risk management.

Risk-targeted interventions are those that attempt to mitigate specific formative information or events. It can target modeling normal behaviors, instruction on a task, or giving information on the

event.<sup>[184][185]</sup>

## Management

[edit]

Further information: Treatments for PTSD

Reviews of studies have found that combination therapy (psychological and pharmacotherapy) is no more effective than psychological therapy alone.<sup>[18]</sup>

## Counselling

[edit]

The approaches with the strongest evidence include behavioral and cognitive-behavioral therapies such as prolonged exposure therapy,<sup>[186]</sup> cognitive processing therapy (CBT), and eye movement desensitization and reprocessing (EMDR).<sup>[187][188][189][190]</sup> There is some evidence for brief eclectic psychotherapy (BEP), narrative exposure therapy (NET), and written exposure therapy<sup>[191][192]</sup>

A 2019 Cochrane review evaluated couples and family therapies compared to no care and individual and group therapies for the treatment of PTSD.<sup>[193]</sup> There were too few studies on couples therapies to determine if substantive benefits were derived, but preliminary RCTs suggested that couples therapies may be beneficial for reducing PTSD symptoms.<sup>[193]</sup>

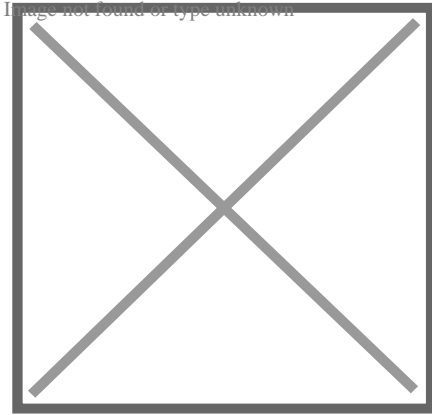
A meta-analytic comparison of EMDR and CBT found both protocols indistinguishable in terms of effectiveness in treating PTSD; however, "the contribution of the eye movement component in EMDR to treatment outcome" is unclear.<sup>[194]</sup> A meta-analysis in children and adolescents also found that EMDR was as efficacious as CBT.<sup>[195]</sup>

Children with PTSD are far more likely to pursue treatment at school (because of its proximity and ease) than at a free clinic.<sup>[196]</sup>

## Cognitive behavioral therapy

[edit]

Main article: Trauma focused cognitive behavioral therapy



The diagram depicts how emotions, thoughts, and behaviors all influence each other. The triangle in the middle represents CBT's tenet that all humans' core beliefs can be summed up in three categories: self, others, future.

CBT seeks to change the way a person feels and acts by changing the patterns of thinking or behavior, or both, responsible for negative emotions. Results from a 2018 systematic review found high strength of evidence that supports CBT-exposure therapy efficacious for a reduction in PTSD and depression symptoms, as well as the loss of PTSD diagnosis.<sup>[10]</sup> CBT has been proven to be an effective treatment for PTSD and is currently considered the standard of care for PTSD by the United States Department of Defense.<sup>[197][198]</sup>

In CBT, individuals learn to identify thoughts that make them feel afraid or upset and replace them with less distressing thoughts. The goal is to understand how certain thoughts about events cause PTSD-related stress.<sup>[199][200]</sup> A study assessing an online version of CBT for people with mild-to-moderate PTSD found that the online approach was as effective as, and cheaper than, the same therapy given face-to-face.<sup>[201][202]</sup> A 2021 Cochrane review assessed the provision of CBT in an Internet-based format found similar beneficial effects for Internet-based therapy as in face-to-face. However, the quality of the evidence was low due to the small number of trials reviewed.<sup>[203]</sup>

Exposure therapy is a type of cognitive behavioral therapy<sup>[204]</sup> that involves assisting trauma survivors to re-experience distressing trauma-related memories and reminders in order to facilitate habituation and successful emotional processing of the trauma memory. Most exposure therapy programs include both imaginal confrontation with the traumatic memories and real-life exposure to trauma reminders; this type of CBT has shown benefit in the treatment of PTSD.<sup>[205][37]</sup>

Some organizations<sup>[which?]</sup> have endorsed the need for exposure.<sup>[206][207]</sup> The U.S. Department of Veterans Affairs has been actively training mental health treatment staff in prolonged exposure therapy<sup>[208]</sup> and cognitive processing therapy<sup>[209]</sup> in an effort to better treat U.S. veterans with PTSD.

Recent research on contextually based third-generation behavior therapies suggests that they may produce results comparable to some of the better validated therapies.<sup>[210]</sup> Many of these therapy methods have a significant element of exposure<sup>[211]</sup> and have demonstrated success in treating the primary problems of PTSD and co-occurring depressive symptoms.<sup>[212]</sup>

## Eye movement desensitization and reprocessing

[edit]

Main article: Eye movement desensitization and reprocessing

Eye movement desensitization and reprocessing (EMDR) is a form of psychotherapy developed and studied by Francine Shapiro.<sup>[213]</sup> She had noticed that, when she was thinking about disturbing memories herself, her eyes were moving rapidly. When she brought her eye movements under control while thinking, the thoughts were less distressing.<sup>[213]</sup>

In 2002, Shapiro and Maxfield published a theory of why this might work, called adaptive information processing.<sup>[214]</sup> This theory proposes that eye movement can be used to facilitate emotional processing of memories, changing the person's memory to attend to more adaptive information.<sup>[215]</sup> The therapist initiates voluntary rapid eye movements while the person focuses on memories, feelings or thoughts about a particular trauma.<sup>[57][216]</sup> The therapist uses hand movements to get the person to move their eyes backward and forward, but hand-tapping or tones can also be used.<sup>[57]</sup> EMDR closely resembles cognitive behavior therapy as it combines exposure (re-visiting the traumatic event), working on cognitive processes and relaxation/self-monitoring.<sup>[57]</sup> However, exposure by way of being asked to think about the experience rather than talk about it has been highlighted as one of the more important distinguishing elements of EMDR.<sup>[217]</sup>

There have been several small, controlled trials of four to eight weeks of EMDR in adults<sup>[218]</sup> as well as children and adolescents.<sup>[216]</sup> There is moderate strength of evidence to support the efficacy of EMDR "for reduction in PTSD symptoms, loss of diagnosis, and reduction in depressive symptoms" according to a 2018 systematic review update.<sup>[10]</sup> EMDR reduced PTSD symptoms enough in the short term that one in two adults no longer met the criteria for PTSD, but the number of people involved in these trials was small and thus results should be interpreted with caution pending further research.<sup>[218]</sup> There was not enough evidence to know whether EMDR could eliminate PTSD in adults.<sup>[218]</sup>

In children and adolescents, a recent meta-analysis of randomized controlled trials using MetaNSUE to avoid biases related to missing information found that EMDR was at least as efficacious as CBT, and superior to waitlist or placebo.<sup>[195]</sup> There was some evidence that EMDR might prevent depression.<sup>[218]</sup> There were no studies comparing EMDR to other psychological treatments or to medication.<sup>[218]</sup> Adverse effects were largely unstudied.<sup>[218]</sup> The benefits were greater for women with a history of sexual assault compared with people who had experienced other types of traumatizing events (such as accidents, physical assaults and war). There is a small amount of evidence that EMDR may improve re-experiencing symptoms in children and adolescents, but EMDR has not been shown to improve other PTSD symptoms, anxiety, or depression.<sup>[216]</sup>

The eye movement component of the therapy may not be critical for benefit.<sup>[57][215]</sup> As there has been no major, high quality randomized trial of EMDR with eye movements versus EMDR without eye movements, the controversy over effectiveness is likely to continue.<sup>[217]</sup> Authors of a meta-

analysis published in 2013<sup>[188]</sup> stated, "We found that people treated with eye movement therapy had greater improvement in their symptoms of post-traumatic stress disorder than people given therapy without eye movements.... Secondly, we found that in laboratory studies the evidence concludes that thinking of upsetting memories and simultaneously doing a task that facilitates eye movements reduces the vividness and distress associated with the upsetting memories."<sup>[219]</sup>

## Interpersonal psychotherapy

[edit]

Other approaches, in particular involving social supports,<sup>[220]</sup><sup>[221]</sup> may also be important. An open trial of interpersonal psychotherapy<sup>[222]</sup> reported high rates of remission from PTSD symptoms without using exposure.<sup>[223]</sup>

# Medication

[edit]

While many medications do not have enough evidence to support their use, four (sertraline, fluoxetine, paroxetine, and venlafaxine) have been shown to have a small to modest benefit over placebo.<sup>[20]</sup> With many medications, residual PTSD symptoms following treatment is the rule rather than the exception.<sup>[224]</sup>

## Antidepressants

[edit]

Selective serotonin reuptake inhibitors (SSRIs) and serotonin–norepinephrine reuptake inhibitors (SNRIs) may have some benefit for PTSD symptoms.<sup>[20]</sup><sup>[225]</sup><sup>[226]</sup> Tricyclic antidepressants are equally effective, but are less well tolerated.<sup>[227]</sup> Evidence provides support for a small or modest improvement with sertraline, fluoxetine, paroxetine, and venlafaxine.<sup>[20]</sup><sup>[228]</sup> Thus, these four medications are considered to be first-line medications for PTSD.<sup>[225]</sup><sup>[6]</sup> The SSRIs paroxetine and sertraline are approved by the U.S. Food and Drug Administration (FDA) approved for the treatment of PTSD.<sup>[37]</sup>

## Benzodiazepines

[edit]

Benzodiazepines are not recommended for the treatment of PTSD due to a lack of evidence of benefit and risk of worsening PTSD symptoms.<sup>[229]</sup> Some authors believe that the use of

benzodiazepines is contraindicated for acute stress, as this group of drugs can cause dissociation.<sup>[230]</sup> Nevertheless, some use benzodiazepines with caution for short-term anxiety and insomnia.<sup>[231][232][233]</sup> While benzodiazepines can alleviate acute anxiety, there is no consistent evidence that they can stop the development of PTSD and may actually increase the risk of developing PTSD 2–5 times.<sup>[19]</sup> Benzodiazepines should not be used in the immediate aftermath of a traumatic event as they may increase symptoms related to PTSD.<sup>[37]</sup>

Benzodiazepines may reduce the effectiveness of psychotherapeutic interventions, and there is some evidence that benzodiazepines may actually contribute to the development and chronification of PTSD. For those who already have PTSD, benzodiazepines may worsen and prolong the course of illness, by worsening psychotherapy outcomes, and causing or exacerbating aggression, depression (including suicidality), and substance use.<sup>[19]</sup> Drawbacks include the risk of developing a benzodiazepine dependence, tolerance (i.e., short-term benefits wearing off with time), and withdrawal syndrome; additionally, individuals with PTSD (even those without a history of alcohol or drug misuse) are at an increased risk of abusing benzodiazepines.<sup>[6][234]</sup>

Due to a number of other treatments with greater efficacy for PTSD and fewer risks, benzodiazepines should be considered relatively contraindicated until all other treatment options are exhausted.<sup>[17][235]</sup>

Benzodiazepines also carry a risk of disinhibition (associated with suicidality, aggression and crimes) and their use may delay or inhibit more definitive treatments for PTSD.<sup>[6][235][236]</sup>

## **Prazosin**

[edit]

Prazosin, an alpha-1 adrenergic antagonist, has been used in veterans with PTSD to reduce nightmares. Studies show variability in the symptom improvement, appropriate dosages, and efficacy in this population.<sup>[237][238][29]</sup>

## **Glucocorticoids**

[edit]

Glucocorticoids may be useful for short-term therapy to protect against neurodegeneration caused by the extended stress response that characterizes PTSD, but long-term use may actually promote neurodegeneration.<sup>[239]</sup>

## **Cannabinoids**

[edit]

See also: Cannabis use and trauma

Cannabis is not recommended as a treatment for PTSD because scientific evidence does not currently exist demonstrating treatment efficacy for cannabinoids.<sup>[240][241][c]</sup> However, use of cannabis or derived products is widespread among U.S. veterans with PTSD.<sup>[242]</sup>

The cannabinoid nabilone is sometimes used for nightmares in PTSD. Although some short-term benefit was shown, adverse effects are common and it has not been adequately studied to determine efficacy.<sup>[243]</sup> An increasing number of states permit and have legalized the use of medical cannabis for the treatment of PTSD.<sup>[244]</sup>

## Other

[edit]

### Exercise, sport and physical activity

[edit]

Physical activity can influence people's psychological<sup>[245]</sup> and physical health.<sup>[246]</sup> The U.S. National Center for PTSD recommends moderate exercise as a way to distract from disturbing emotions, build self-esteem and increase feelings of being in control again. They recommend a discussion with a doctor before starting an exercise program.<sup>[247]</sup>

### Play therapy for children

[edit]

Play is thought to help children link their inner thoughts with their outer world, connecting real experiences with abstract thought.<sup>[248]</sup> Repetitive play can also be one way a child relives traumatic events, and that can be a symptom of trauma in a child or young person.<sup>[249]</sup> Although it is commonly used, there have not been enough studies comparing outcomes in groups of children receiving and not receiving play therapy, so the effects of play therapy are not yet understood.<sup>[57][248]</sup>

### Military programs

[edit]

Many veterans of the wars in Iraq and Afghanistan have faced significant physical, emotional, and relational disruptions. In response, the United States Marine Corps has instituted programs to assist them in re-adjusting to civilian life, especially in their relationships with spouses and loved ones, to help them communicate better and understand what the other has gone through.<sup>[250]</sup>



Walter Reed Army Institute of Research (WRAIR) developed the Battlemind program to assist service members avoid or ameliorate PTSD and related problems. Wounded Warrior Project partnered with the US Department of Veterans Affairs to create Warrior Care Network, a national health system of PTSD treatment centers.<sup>[251][252]</sup>

## Nightmares

[edit]

In 2020, the United States Food and Drug Administration granted marketing approval for an Apple Watch app call NightWare. The app aims to improve sleep for people suffering from PTSD-related nightmares, by vibrating when it detects a nightmare in progress based on monitoring heart rate and body movement.<sup>[253]</sup>

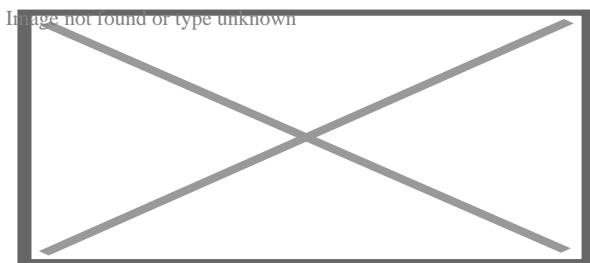
## The "colour cure"

[edit]

Toward the end of the First World War art connoisseur Howard Kemp Prossor came up with what he called the "colour cure" – the use of specific colours to ease the suffering of people with shell shock.<sup>[254]</sup>

## Epidemiology

[edit]



Disability-adjusted life year rates for post-traumatic stress disorder per 100,000 inhabitants in 2004<sup>[255]</sup>

■ no data

- < 43.5
- 43.5–45
- 45–46.5
- 46.5–48
- 48–49.5
- 49.5–51
- 51–52.5
- 52.5–54

- 54–55.5
- 55.5–57
- 57–58.5
- > 58.5

There is debate over the rates of PTSD found in populations, but, despite changes in diagnosis and the criteria used to define PTSD between 1997 and 2013, epidemiological rates have not changed significantly.<sup>[256][257]</sup> Most of the current reliable data regarding the epidemiology of PTSD is based on DSM-IV criteria, as the DSM-5 was not introduced until 2013.

The United Nations' World Health Organization publishes estimates of PTSD impact for each of its member states; the latest data available are for 2004. Considering only the 25 most populated countries ranked by overall age-standardized Disability-Adjusted Life Year (DALY) rate, the top half of the ranked list is dominated by Asian/Pacific countries, the US, and Egypt.<sup>[255]</sup> Ranking the countries by the male-only or female-only rates produces much the same result, but with less meaningfulness, as the score range in the single-sex rankings is much-reduced (4 for women, 3 for men, as compared with 14 for the overall score range), suggesting that the differences between female and male rates, within each country, is what drives the distinctions between the countries.<sup>[258][259]</sup>

As of 2017, the cross-national lifetime prevalence of PTSD was 3.9%, based on a survey where 5.6% had been exposed to trauma.<sup>[260]</sup> The primary factor impacting treatment-seeking behavior, which can help to mitigate PTSD development after trauma was income, while being younger, female, and having less social status (less education, lower individual income, and being unemployed) were all factors associated with less treatment-seeking behavior.<sup>[260]</sup>

Age-standardized Disability-adjusted life year (DALY) rates for PTSD, per 100,000 inhabitants, in 25 most populous countries, ranked by overall rate (2004)

Region	Country	PTSD DALY rate, overall <sup>[255]</sup>	PTSD DALY rate, females <sup>[258]</sup>	PTSD DALY rate, males <sup>[259]</sup>
Asia / Pacific	Thailand	59	86	30
Asia / Pacific	Indonesia	58	86	30
Asia / Pacific	Philippines	58	86	30
Americas	USA	58	86	30
Asia / Pacific	Bangladesh	57	85	29
Africa	Egypt	56	83	30
Asia / Pacific	India	56	85	29
Asia / Pacific	Iran	56	83	30
Asia / Pacific	Pakistan	56	85	29
Asia / Pacific	Japan	55	80	31
Asia / Pacific	Myanmar	55	81	30
Europe	Turkey	55	81	30
Asia / Pacific	Vietnam	55	80	30
Europe	France	54	80	28

Europe	Germany	54	80	28
Europe	Italy	54	80	28
Asia / Pacific	Russian Federation	54	78	30
Europe	United Kingdom	54	80	28
Africa	Nigeria	53	76	29
Africa	Dem. Republ. of Congo	52	76	28
Africa	Ethiopia	52	76	28
Africa	South Africa	52	76	28
Asia / Pacific	China	51	76	28
Americas	Mexico	46	60	30
Americas	Brazil	45	60	30

## United States

[edit]

PTSD affects about 5% of the US adult population each year.<sup>[261]</sup> The National Comorbidity Survey Replication has estimated that the lifetime prevalence of PTSD among adult Americans is 6.8%, with women (9.7%) more than twice as likely as men<sup>[126]</sup> (3.6%) to have PTSD at some point in their lives.<sup>[66]</sup> More than 60% of men and more than 60% of women experience at least one traumatic event in their life. The most frequently reported traumatic events by men are rape, combat, and childhood neglect or physical abuse. Women most frequently report instances of rape, sexual molestation, physical attack, being threatened with a weapon and childhood physical abuse.<sup>[126]</sup> 88% of men and 79% of women with lifetime PTSD have at least one comorbid psychiatric disorder. Major depressive disorder, 48% of men and 49% of women, and lifetime alcohol use disorder or dependence, 51.9% of men and 27.9% of women, are the most common comorbid disorders.<sup>[262]</sup>

### Military combat

[edit]

The United States Department of Veterans Affairs estimates that 830,000 Vietnam War veterans had symptoms of PTSD.<sup>[263]</sup> The *National Vietnam Veterans' Readjustment Study* (NVVRS) found 15% of male and 9% of female Vietnam veterans had PTSD at the time of the study. Lifetime prevalence of PTSD was 31% for males and 27% for females. In a reanalysis of the NVVRS data, along with analysis of the data from the Matsunaga Vietnam Veterans Project, Schnurr, Lunney, Sengupta, and Waelde found that, contrary to the initial analysis of the NVVRS data, a large majority of Vietnam veterans had PTSD symptoms (but not the disorder itself). Four out of five reported recent symptoms when interviewed 20–25 years after Vietnam.<sup>[264]</sup>

A 2011 study from Georgia State University and San Diego State University found that rates of PTSD diagnosis increased significantly when troops were stationed in combat zones, had tours of longer than a year, experienced combat, or were injured. Military personnel serving in combat zones were 12.1 percentage points more likely to receive a PTSD diagnosis than their active-duty counterparts in non-combat zones. Those serving more than 12 months in a combat zone were 14.3 percentage points more likely to be diagnosed with PTSD than those having served less than one year.<sup>[265]</sup>

Experiencing an enemy firefight was associated with an 18.3 percentage point increase in the probability of PTSD, while being wounded or injured in combat was associated with a 23.9 percentage point increase in the likelihood of a PTSD diagnosis. For the 2.16 million U.S. troops deployed in combat zones between 2001 and 2010, the total estimated two-year costs of treatment for combat-related PTSD are between \$1.54 billion and \$2.69 billion.<sup>[265]</sup>

As of 2013, rates of PTSD have been estimated at up to 20% for veterans returning from Iraq and Afghanistan.<sup>[266]</sup> As of 2013 13% of veterans returning from Iraq were unemployed.<sup>[267]</sup>

## Human-made disasters

[edit]

The September 11 attacks took the lives of nearly 3,000 people, leaving 6,000 injured.<sup>[268]</sup> First responders (police, firefighters, and emergency medical technicians), sanitation workers, and volunteers were all involved in the recovery efforts. The prevalence of probable PTSD in these highly exposed populations was estimated across several studies using in-person, telephone, and online interviews and questionnaires.<sup>[268][269][270]</sup> Overall prevalence of PTSD was highest immediately following the attacks and decreased over time. However, disparities were found among the different types of recovery workers.<sup>[268][269]</sup> The rate of probable PTSD for first responders was lowest directly after the attacks and increased from ranges of 4.8–7.8% to 7.4–16.5% between the 5–6 year follow-up and a later assessment.<sup>[268]</sup>

When comparing traditional responders to non-traditional responders (volunteers), the probable PTSD prevalence 2.5 years after the initial visit was greater in volunteers with estimates of 11.7% and 17.2% respectively.<sup>[268]</sup> Volunteer participation in tasks atypical to the defined occupational role was a significant risk factor for PTSD.<sup>[269]</sup> Other risk factors included exposure intensity, earlier start date, duration of time spent on site, and constant, negative reminders of the trauma.<sup>[268][269]</sup>

Additional research has been performed to understand the social consequences of the September 11 attacks. Alcohol consumption was assessed in a cohort of World Trade Center workers using the cut-annoyed-guilty-eye (CAGE) questionnaire for alcohol use disorder. Almost 50% of World Trade Center workers who self-identified as alcohol users reported drinking more during the rescue efforts.<sup>[270]</sup> Nearly a quarter of these individuals reported drinking more following the recovery.<sup>[270]</sup> If determined to have probable PTSD status, the risk of developing an alcohol problem was double compared to those without psychological morbidity.<sup>[270]</sup> Social disability was

also studied in this cohort as a social consequence of the September 11 attacks. Defined by the disruption of family, work, and social life, the risk of developing social disability increased 17-fold when categorized as having probable PTSD.<sup>[270]</sup>

## Anthropology

[edit]



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Cultural and medical anthropologists have questioned the validity of applying the diagnostic criteria of PTSD cross-culturally.<sup>[271]</sup>

Trauma (and resulting PTSD) is often experienced through the outermost limits of suffering, pain and fear. The images and experiences relived through PTSD often defy easy description through language. Therefore, the translation of these experiences from one language to another is problematic, and the primarily Euro-American research on trauma is necessarily limited.<sup>[272]</sup> The Sapir-Whorf hypothesis suggests that people perceive the world differently according to the language they speak: language and the world it exists within reflect back on the perceptions of the speaker.<sup>[273]</sup>

For example, ethnopsychology studies in Nepal have found that cultural idioms and concepts related to trauma often do not translate to western terminologies: *piDaa* is a term that may align to trauma/suffering, but also people who suffer from *piDaa* are considered *paagal* (mad) and are subject to negative social stigma, indicating the need for culturally appropriate and carefully tailored support interventions.<sup>[274]</sup> More generally, different cultures remember traumatic experiences within different linguistic and cultural paradigms. As such, cultural and medical anthropologists have questioned the validity of applying the diagnostic criteria of PTSD cross-culturally, as defined in the Diagnostic and Statistical Manual of Mental Disorders (DSM-III),<sup>[needs update]</sup> and constructed through the Euro-American paradigm of psychology.<sup>[271]</sup>

There remains a dearth of studies into the conceptual frameworks that surround trauma in non-Western cultures.<sup>[271]</sup> There is little evidence to suggest therapeutic benefit in synthesizing local idioms of distress into a culturally constructed disorder of the post-Vietnam era, a practice anthropologist believe contributes to category fallacy.<sup>[clarification needed]</sup><sup>[271]</sup> For many cultures there is no single linguistic corollary to PTSD, psychological trauma being a multi-faceted concept with corresponding variances of expression.<sup>[274]</sup>

Designating the effects of trauma as an affliction of the spirit is common in many non-Western cultures where idioms such as "soul loss" and "weak heart" indicate a preference to confer suffering to a spirit-body or heart-body diametric. These idioms reflect the emphasis that collectivist cultures place on healing trauma through familial, cultural and religious activities while avoiding the stigma that accompanies a mind-body approach.<sup>[271]</sup> Prescribing PTSD diagnostics within these communities is ineffective and often detrimental.<sup>[citation needed]</sup> For trauma that extends beyond the individual, such as the effects of war, anthropologists believe applying the

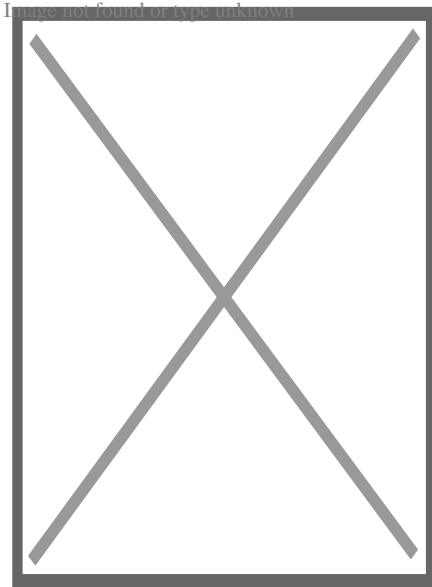
term "social suffering" or "cultural bereavement" to be more beneficial.[<sup>275</sup>]

Every facet of society is affected by conflict; the prolonged exposure to mass violence can lead to a 'continuous suffering' among civilians, soldiers, and bordering countries.[<sup>276</sup>] Entered into the DSM in 1980, clinicians and psychiatrists based the diagnostic criteria for PTSD around American veterans of the Vietnam War.[<sup>277</sup>] Though the DSM gets reviewed and updated regularly, it is unable to fully encompass the disorder due to its Americanization (or Westernization)[<sup>278</sup>] That is, what may be considered characteristics of PTSD in western society, may not directly translate across to other cultures around the world. Displaced people of the African country Burundi experienced symptoms of depression and anxiety, though few symptoms specific to PTSD were noted.[<sup>279</sup>]

In a similar review, Sudanese refugees relocated in Uganda were 'concerned with material [effects]' (lack of food, shelter, and healthcare), rather than psychological distress.[<sup>279</sup>] In this case, many refugees did not present symptoms at all, with a minor few developing anxiety and depression.[<sup>279</sup>] War-related stresses and traumas will be ingrained in the individual,[<sup>276</sup>] however they will be affected differently from culture to culture, and the "clear-cut" rubric for diagnosing PTSD does not allow for culturally contextual reactions to take place.[*citation needed*]

## Veterans

[edit]



Vietnam Veterans Memorial, Washington, D.C.

## United States

[edit]

See also: Benefits for US Veterans with PTSD

The United States provides a range of benefits for veterans that the VA has determined have PTSD, which developed during, or as a result of, their military service. These benefits may include tax-free cash payments,<sup>[280]</sup> free or low-cost mental health treatment and other healthcare,<sup>[281]</sup> vocational rehabilitation services,<sup>[282]</sup> employment assistance,<sup>[283]</sup> and independent living support.<sup>[284][285]</sup>

## United Kingdom

[edit]

In the UK, there are various charities and service organisations dedicated to aiding veterans in readjusting to civilian life. The Royal British Legion and the more recently established Help for Heroes are two of Britain's more high-profile veterans' organisations which have actively advocated for veterans over the years. There has been some controversy that the NHS has not done enough in tackling mental health issues and is instead "dumping" veterans on charities such as Combat Stress.<sup>[286][287]</sup>

## Canada

[edit]

Veterans Affairs Canada provides assistance to disabled veterans that includes rehabilitation, financial aid, job placement, healthcare, disability compensation, peer support,<sup>[288][289]</sup> and family support.<sup>[290]</sup>

### History

[edit]

See also: List of people with post-traumatic stress disorder

Aspects of PTSD in soldiers of ancient Assyria have been identified using written sources from 1300 to 600 BCE. These Assyrian soldiers would undergo a three-year rotation of combat before being allowed to return home, and were reported to have faced immense challenges in reconciling their past actions in war with their civilian lives.<sup>[291]</sup>

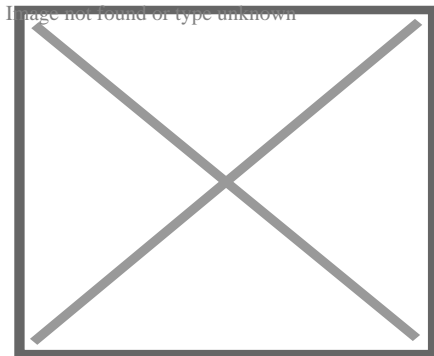
Connections between the actions of Viking berserkers and the hyperarousal of post-traumatic stress disorder have also been drawn.<sup>[292]</sup>

Psychiatrist Jonathan Shay has proposed that Lady Percy's soliloquy in the William Shakespeare play *Henry IV, Part 1* (act 2, scene 3, lines 40–62<sup>[293]</sup>), written around 1597, represents an unusually accurate description of the symptom constellation of PTSD.<sup>[294]</sup>

Many historical wartime diagnoses such as railway spine, stress syndrome, nostalgia, soldier's heart, shell shock, battle fatigue, combat stress reaction, and traumatic war neurosis are now associated with PTSD.<sup>[295]</sup><sup>[296]</sup>

The correlations between combat and PTSD are undeniable; according to Stéphane Audoin-Rouzeau and Annette Becker, "One-tenth of mobilized American men were hospitalized for mental disturbances between 1942 and 1945, and, after thirty-five days of uninterrupted combat, 98% of them manifested psychiatric disturbances in varying degrees."<sup>[297]</sup>

The DSM-I (1952) includes a diagnosis of "gross stress reaction", which has similarities to the modern definition and understanding of PTSD.<sup>[298]</sup> Gross stress reaction is defined as a normal personality using established patterns of reaction to deal with overwhelming fear as a response to conditions of great stress.<sup>[299]</sup> The diagnosis includes language which relates the condition to combat as well as to "civilian catastrophe".<sup>[299]</sup>



Statue, *Three Servicemen*, Vietnam Veterans Memorial

The addition of the term to the DSM-III was greatly influenced by the experiences and conditions of U.S. military veterans of the Vietnam War.<sup>[300]</sup> In fact, much of the available published research regarding PTSD is based on studies done on veterans of the war in Vietnam.

Because of the initial overt focus on PTSD as a combat related disorder when it was first fleshed out in the years following the war in Vietnam, in 1975 Ann Wolbert Burgess and Lynda Lytle Holmstrom defined rape trauma syndrome (RTS) in order to draw attention to the striking similarities between the experiences of soldiers returning from war and of rape victims.<sup>[301]</sup> This paved the way for a more comprehensive understanding of causes of PTSD.

Early in 1978, the diagnosis term "post-traumatic stress disorder" was first recommended in a working group finding presented to the Committee of Reactive Disorders.<sup>[302]</sup>

A USAF study carried out in 1979 focused on individuals (civilian and military) who had worked to recover or identify the remains of those who died in Jonestown. The bodies had been dead for several days, and a third of them had been children. The study used the term "dysphoria" to describe PTSD-like symptoms.<sup>[303]</sup>



After PTSD became an official American psychiatric diagnosis with the publication of DSM-III (1980), the number of personal injury lawsuits (tort claims) asserting the plaintiff had PTSD increased rapidly. However, triers of fact (judges and juries) often regarded the PTSD diagnostic criteria as imprecise, a view shared by legal scholars, trauma specialists, forensic psychologists, and forensic psychiatrists. The condition was termed "posttraumatic stress disorder" in the DSM-III (1980).<sup>[298][302]</sup>

Professional discussions and debates in academic journals, at conferences, and between thought leaders, led to a more clearly-defined set of diagnostic criteria in DSM-IV (1994), particularly the definition of a "traumatic event".<sup>[304]</sup> The DSM-IV classified PTSD under anxiety disorders. In the ICD-10 (first used in 1994), the spelling of the condition was "post-traumatic stress disorder".<sup>[305]</sup>

In 2012, the researchers from the Grady Trauma Project highlighted the tendency people have to focus on the combat side of PTSD: "less public awareness has focused on civilian PTSD, which results from trauma exposure that is not combat related..." and "much of the research on civilian PTSD has focused on the sequelae of a single, disastrous event, such as the Oklahoma City bombing, September 11th attacks, and Hurricane Katrina".<sup>[306]</sup> Disparity in the focus of PTSD research affected the already popular perception of the exclusive interconnectedness of combat and PTSD. This is misleading when it comes to understanding the implications and extent of PTSD as a neurological disorder.

The DSM-5 (2013) created a new category called "trauma and stressor-related disorders", in which PTSD is now classified.<sup>[1]</sup>

America's 2014 National Comorbidity Survey reports that "the traumas most commonly associated with PTSD are combat exposure and witnessing among men and rape and sexual molestation among women."<sup>[66]</sup>

## Terminology

[edit]

"PTSS" redirects here. Not to be confused with Post Traumatic Slave Syndrome.

The *Diagnostic and Statistical Manual of Mental Disorders* does not hyphenate "post" and "traumatic", thus, the DSM-5 lists the disorder as *posttraumatic stress disorder*.<sup>[307]</sup> However, many scientific journal articles and other scholarly publications do hyphenate the name of the disorder, viz., "post-traumatic stress disorder".<sup>[308]</sup> Dictionaries also differ with regard to the preferred spelling of the disorder with the *Collins English Dictionary – Complete and Unabridged* using the hyphenated spelling, and the *American Heritage Dictionary of the English Language, Fifth Edition* and the *Random House Kernerman Webster's College Dictionary* giving the non-hyphenated spelling.<sup>[309]</sup>

Some authors have used the terms "**post-traumatic stress syndrome**" or "**post-traumatic stress symptoms**" ("**PTSS**"),<sup>[310]</sup> or simply "**post-traumatic stress**" ("**PTS**") in the case of the U.S. Department of Defense,<sup>[311]</sup> to avoid stigma associated with the word "disorder".

The comedian George Carlin criticized the euphemism treadmill which led to progressive change of the way PTSD was referred to over the course of the 20th century, from "shell shock" in the First World War to the "battle fatigue" in the Second World War, to "operational exhaustion" in the Korean War, to the current "post-traumatic stress disorder", coined during the Vietnam War, which "added a hyphen" and which, he commented, "completely burie[s] [the pain] under jargon". He also stated that the name given to the condition has had a direct effect on the way veteran soldiers with PTSD were treated and perceived by civilian populations over time.[<sup>312</sup>]

## Research

[edit]

Most knowledge regarding PTSD comes from studies in high-income countries.[<sup>313</sup>]

To recapitulate some of the neurological and neurobehavioral symptoms experienced by the veteran population of recent conflicts in Iraq and Afghanistan, researchers at the Roskamp Institute and the James A Haley Veteran's Hospital (Tampa) have developed an animal model to study the consequences of mild traumatic brain injury (mTBI) and PTSD.[<sup>314</sup>] In the laboratory, the researchers exposed mice to a repeated session of unpredictable stressor (i.e. predator odor while restrained), and physical trauma in the form of inescapable foot-shock, and this was also combined with a mTBI. In this study, PTSD animals demonstrated recall of traumatic memories, anxiety, and an impaired social behavior, while animals subject to both mTBI and PTSD had a pattern of disinhibitory-like behavior. mTBI abrogated both contextual fear and impairments in social behavior seen in PTSD animals. In comparison with other animal studies,[<sup>314</sup>][<sup>315</sup>] examination of neuroendocrine and neuroimmune responses in plasma revealed a trend toward increase in corticosterone in PTSD and combination groups.

Stellate ganglion block is an experimental procedure for the treatment of PTSD.[<sup>316</sup>]

Researchers are investigating a number of experimental FAAH and MAGL-inhibiting drugs in hopes of finding a better treatment for anxiety and stress-related illnesses.[<sup>317</sup>] In 2016, the FAAH-inhibitor drug BIA 10-2474 was withdrawn from human trials in France due to adverse effects.[<sup>318</sup>]

Evidence from clinical trials suggests that MDMA-assisted psychotherapy is an effective treatment for PTSD.[<sup>319</sup>][<sup>320</sup>] On August 9, 2024, the FDA issued a letter stating that a further trial was necessary to ascertain that the benefits of MDMA-assisted psychotherapy outweighed the potential harms.[<sup>321</sup>] Positive findings in clinical trials of MDMA-assisted psychotherapy might be substantially influenced by expectancy effects given the unblinding of participants.[<sup>322</sup>][<sup>323</sup>] To prevent this confounding factor, it has been suggested that future trials compare MDMA against an active placebo.[<sup>324</sup>] There is a lack of trials comparing MDMA-assisted psychotherapy to existent first-line treatments for PTSD, such as trauma-focused psychological treatments, which seems to achieve similar or even better outcomes than MDMA-assisted psychotherapy.[<sup>325</sup>]

# Psychotherapy

[edit]

Trauma-focused psychotherapies for PTSD (also known as "exposure-based" or "exposure" psychotherapies), such as prolonged exposure therapy (PE), eye movement desensitization and reprocessing (EMDR), and cognitive-reprocessing therapy (CPT) have the most evidence for efficacy and are recommended as first-line treatment for PTSD by almost all clinical practice guidelines.<sup>[326][327][328]</sup> Exposure-based psychotherapies demonstrate efficacy for PTSD caused by different trauma "types", such as combat, sexual-assault, or natural disasters.<sup>[326]</sup> At the same time, many trauma-focused psychotherapies evince high drop-out rates.<sup>[329]</sup>

Most systematic reviews and clinical guidelines indicate that psychotherapies for PTSD, most of which are trauma-focused therapies, are more effective than pharmacotherapy (medication).<sup>[330]</sup> although there are reviews that suggest exposure-based psychotherapies for PTSD and pharmacotherapy are equally effective.<sup>[331]</sup> Interpersonal psychotherapy shows preliminary evidence of probable efficacy, but more research is needed to reach definitive conclusions.<sup>[332]</sup>

## See also

[edit]

 [Psychiatry portal](#)

- Childbirth-related post-traumatic stress disorder
- Internet interventions for post-traumatic stress
- Internet-based treatments for trauma survivors
- Post-traumatic embitterment disorder
- Post-traumatic growth
- Post-traumatic stress disorder after World War II
- Post-traumatic stress disorder and substance use disorders
- Symptoms of victimization
- Traumatic stress
- Impact of prostitution on mental health

## Notes

[edit]

- <sup>^</sup> At least 1 month of symptoms for clinical diagnosis is required, while symptoms may persist from 6 months to multiple years.<sup>[1][3]</sup>
- <sup>^</sup> Acceptable variants of this term exist; see the *Terminology* section in this article.

3. ^ As an *example* of such research, see: Bonn-Miller MO, Sisley S, Riggs P, Yazar-Klosinski B, Wang JB, Loflin MJE, et al. (2021) The short-term impact of 3 smoked cannabis preparations versus placebo on PTSD symptoms: A randomized cross-over clinical trial. *PLOS ONE* 16(3): e0246990.

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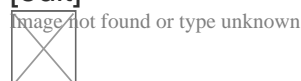
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- Post traumatic stress disorder information from The National Child Traumatic Stress Network
- Information resources from The University of Queensland School of Medicine
- APA practice parameters for assessment and treatment for PTSD (Updated 2017)
- Resources for professionals from the VA National PTSD Center

### Classification

- **ICD-10:** F43.1
- **ICD-9-CM:** 309.81
- **MeSH:** D013313
- **DiseasesDB:** 33846
- **SNOMED CT:** 47505003

D

### External resources

- **MedlinePlus:** 000925
- **eMedicine:** med/1900
- **Patient UK:** Post-traumatic stress disorder

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Mental disorders (Classification)

## Adult personality and behavior

- Sexual**
  - Ego-dystonic sexual orientation
  - Paraphilia
    - Fetishism
    - Voyeurism
  - Sexual anhedonia
  - Sexual anorexia
  - Sexual maturation disorder
  - Sexual relationship disorder

- Other**
  - Factitious disorder
    - Munchausen syndrome
  - Fear of intimacy
  - Gender dysphoria
  - Intermittent explosive disorder
  - Dermatillomania
  - Kleptomania
  - Pyromania
  - Trichotillomania
  - Personality disorder

## Childhood and learning

- ADHD
- Conduct disorder
  - ODD
- Emotional and behavioral disorders
  - Separation anxiety disorder
- Movement disorders
  - Stereotypic
- Emotional and behavioral**
  - Social functioning
    - DAD
    - RAD
    - Selective mutism
  - Speech
    - Cluttering
    - Stuttering
  - Tic disorder
    - Tourette syndrome

- Intellectual disability**
  - X-linked intellectual disability
    - Lujan–Fryns syndrome

- Psychological development  
(developmental disabilities)**
  - Pervasive
  - Specific

## **Mood (affective)**

- Bipolar
  - Bipolar I
  - Bipolar II
  - Bipolar NOS
  - Cyclothymia
- Depression
  - Atypical depression
  - Dysthymia
  - Major depressive disorder
  - Melancholic depression
  - Seasonal affective disorder
- Mania

## **Neurological and symptomatic**

- |                        |  |
|------------------------|--|
| <b>Autism spectrum</b> | <ul style="list-style-type: none"><li>○ Autism</li><li>○ Asperger syndrome</li><li>○ High-functioning autism</li><li>○ PDD-NOS</li><li>○ Savant syndrome</li></ul>   |
| <b>Dementia</b>        | <ul style="list-style-type: none"><li>○ AIDS dementia complex</li><li>○ Alzheimer's disease</li><li>○ Creutzfeldt–Jakob disease</li><li>○ Frontotemporal dementia</li><li>○ Huntington's disease</li><li>○ Mild cognitive impairment</li><li>○ Parkinson's disease</li><li>○ Pick's disease</li><li>○ Sundowning</li><li>○ Vascular dementia</li><li>○ Wandering</li></ul> |
| <b>Other</b>           | <ul style="list-style-type: none"><li>○ Delirium</li><li>○ Organic brain syndrome</li><li>○ Post-concussion syndrome</li></ul>   |



## Neurotic, stress-related and somatoform

**Adjustment**      ○ Adjustment disorder with depressed mood

**Phobia**

- Agoraphobia
- Childhood phobia
- Social anxiety
- Social phobia
  - Anthropophobia
  - Specific social phobia
- Specific phobia
  - Claustrophobia

### Anxiety

**Other**

- Generalized anxiety disorder
- OCD
- Panic attack
- Panic disorder
- Stress
  - Acute stress reaction
  - PTSD

### Dissociative

- Depersonalization-derealization disorder
- Dissociative identity disorder
- Dissociative amnesia
- Dissociative fugue
- Dissociative disorder not otherwise specified
- Other specified dissociative disorder

### Somatic symptom

- Body dysmorphic disorder
- Conversion disorder
  - Ganser syndrome
  - Globus pharyngis
  - Psychogenic non-epileptic seizures
- False pregnancy
- Hypochondriasis
- Mass psychogenic illness
- Nosophobia
- Psychogenic pain
- Somatization disorder

## **Physiological and physical behavior**

### **Eating**

- Anorexia nervosa
- Bulimia nervosa
- Rumination syndrome
- Other specified feeding or eating disorder

### **Nonorganic sleep**

- Hypersomnia
- Insomnia
- Parasomnia
  - Night terror
  - Nightmare
  - REM sleep behavior disorder

### **Postnatal**

- Postpartum depression
- Postpartum psychosis

### **Sexual desire**

- Hypersexuality
- Hypoactive sexual desire disorder

## **Psychoactive substances, substance abuse and substance-related**

- Drug overdose
- Intoxication
- Physical dependence
- Rebound effect
- Stimulant psychosis
- Substance dependence
- Withdrawal

## Schizophrenia, schizotypal and delusional

### Delusional

- Delusional disorder
- Folie à deux

### Psychosis and schizophrenia-like

- Brief reactive psychosis
- Schizoaffective disorder
- Schizophreniform disorder

### Schizophrenia

- Childhood schizophrenia
- Disorganized (hebephrenic) schizophrenia
- Pseudoneurotic schizophrenia
- Simple-type schizophrenia

### Other

- Catatonia

## Symptoms and uncategorized

- Impulse-control disorder
- Klüver–Bucy syndrome
- Psychomotor agitation
- Stereotypy

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### Trauma

### Principles

- Polytrauma
- Major trauma
- Traumatology
- Triage
- Resuscitation
- Trauma triad of death

<b>Assessment</b>	<b>Clinical prediction rules</b>	<ul style="list-style-type: none"><li>○ Abbreviated Injury Scale</li><li>○ Injury Severity Score</li><li>○ NACA score</li><li>○ Revised Trauma Score</li></ul>
	<b>Investigations</b>	<ul style="list-style-type: none"><li>○ Diagnostic peritoneal lavage</li><li>○ Focused assessment with sonography for trauma</li></ul>
<b>Management</b>	<b>Principles</b>	<ul style="list-style-type: none"><li>○ Advanced trauma life support</li><li>○ Damage control surgery</li><li>○ Early appropriate care</li><li>○ Trauma center</li><li>○ Trauma surgery</li><li>○ Trauma team</li></ul>
	<b>Procedures</b>	<ul style="list-style-type: none"><li>○ Resuscitative thoracotomy</li></ul>

## Pathophysiology

### Injury

- MSK
  - Bone fracture
  - Degloving
  - Joint dislocation
  - Soft tissue injury
- Respiratory
  - Diaphragmatic rupture
  - Flail chest
  - Hemothorax
  - Pneumothorax
  - Pulmonary contusion
- Cardio
  - Cardiac tamponade
  - Internal bleeding
  - Thoracic aorta injury
- GI
  - Blunt kidney trauma
  - Splenic injury
- Neuro
  - Intracranial hemorrhage
  - Penetrating head injury
  - Traumatic brain injury

### Mechanism

- Blast injury
- Blunt trauma
- Burn
- Crush injury
- Electrocution
- Gunshot wound
- Penetrating trauma
- Stab wound

### Region

- Abdominal trauma
- Chest injury
- Facial trauma
- Head injury
- Spinal cord injury

### Demographic

- Geriatric trauma
- Pediatric trauma

- Complications**
- Acute respiratory distress syndrome
  - Chronic traumatic encephalopathy
  - Compartment syndrome
  - Contracture
    - Volkmann's contracture
  - Crush syndrome
    - Rhabdomyolysis
  - Embolism
    - air
    - fat
  - Post-traumatic stress disorder
  - Subcutaneous emphysema
  - Wound healing

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- National**
- Germany
  - United States
  - Japan
  - Czech Republic
  - Israel

- Other**
- NARA

### About Eye movement desensitization and reprocessing

"EMDR" redirects here. For the materials characterisation technique, see Electrically detected magnetic resonance.

**Eye movement desensitization and reprocessing (EMDR)** is a form of psychotherapy designed to treat post-traumatic stress disorder (PTSD). It was devised by Francine Shapiro in 1987.

EMDR involves talking about traumatic memories while engaging in side-to-side eye movements or other forms of bilateral stimulation. It is also used for some other psychological conditions.

EMDR is recommended for the treatment of PTSD by various government and medical bodies citing varying levels of evidence, including the World Health Organization, the UK National Institute for Health and Care Excellence, the Australian National Health and Medical Research Council, and

the US Departments of Veteran Affairs and Defense. The American Psychological Association does not endorse EMDR as a first-line treatment, but indicates that it is probably effective for treating adult PTSD.

Systematic analyses published since 2013 generally indicate that EMDR treatment efficacy for adults with PTSD is equivalent to trauma-focused cognitive and behavioral therapies (TF-CBT), such as Prolonged exposure therapy (PE) and Cognitive Processing Therapy (CPT). However, bilateral stimulation does not contribute substantially, if at all, to treatment effectiveness. The predominant therapeutic factors in EMDR and TF-CBT are exposure and various components of cognitive-behavioral therapy.

Because eye movements and other bilateral stimulation techniques do not uniquely contribute to EMDR treatment efficacy, EMDR has been characterized as a purple hat therapy, i.e., its effectiveness is due to the same therapeutic methods found in other evidence-based psychotherapies for PTSD, namely exposure therapy and CBT techniques, without any contribution from its distinctive add-ons.

## History

[edit]

EMDR was invented by Francine Shapiro in 1987.

In a workshop, Shapiro related how the idea of the therapy came to her while she was taking a walk in the woods, and discerned she had been able to cope better with disturbing thoughts when also experiencing saccadic eye movements.<sup>[1]</sup> Psychologist Gerald Rosen has expressed doubt about this description, saying that people are normally not aware of this type of eye movement.<sup>[1]</sup> Gerald Rosen and Bruce Grimley suggest that it is more likely that she developed EMDR out of her experience with neuro-linguistic programming.<sup>[2][3][4]</sup>

## Technique

[edit]

EMDR is typically undertaken in a series of sessions with a trained therapist.<sup>[5]</sup> The number of sessions can vary depending on the progress made. A typical EMDR therapy session lasts from 60 to 90 minutes.<sup>[6]</sup>

The person being treated is asked to recall an image, phrase, and emotion that represent a level of distress related to a trigger while generating one of several types of bilateral sensory input, such as side-to-side eye movements or hand tapping.<sup>[7]</sup> The 2013 World Health Organization practice guideline says that "Like cognitive behavioral therapy (CBT) with a trauma focus, EMDR aims to reduce subjective distress and strengthen adaptive beliefs related to the traumatic event. Unlike CBT with a trauma focus, EMDR does not involve (a) detailed descriptions of the event, (b) direct challenging of beliefs, (c) extended exposure or (d) homework."<sup>[8]</sup>

## Possible mechanisms

[edit]

# Incomplete processing of experiences in trauma

[edit]

Many proposals of EMDR efficacy share an assumption that, as Shapiro posited, when a traumatic or very negative event occurs, information processing of the experience in memory may be incomplete. The trauma causes a disruption of normal adaptive information processing, which results in unprocessed information being dysfunctionally held in memory networks.<sup>[9]</sup> According to the 2013 World Health Organization practice guideline: "This therapy [EMDR] is based on the idea that negative thoughts, feelings and behaviours are the result of unprocessed memories."<sup>[8]</sup> This proposed mechanism has no known scientific basis.<sup>[10]</sup>

## Other mechanisms

[edit]

Several other possible mechanisms have been proposed:

- EMDR may impact working memory.<sup>[11]</sup> If a patient performs bilateral stimulation task while remembering the trauma, the amount of information they can recall is thought to be reduced, making the resulting negative emotions less intense and more bearable.<sup>[12]</sup> This is seen by Robin Logie of the EMDR Association UK and Ireland as a "distancing effect". The client is then believed to re-evaluate the trauma and process it in a less-harmful environment.<sup>[13]</sup> This explanation is plausible, given research showing that memories are more modifiable once recalled.<sup>[14]</sup>
- Horizontal eye movement is thought to trigger an "orienting response" in the brain, used in scanning the environment for threats and opportunities.<sup>[15]</sup>
- The idea that eye movement prompts communication between the two sides of the brain. This idea is not grounded in accepted neuroscience.<sup>[14]</sup>

# Bilateral stimulation, including eye movement

[edit]



Bilateral stimulation is a generalization of the left and right repetitive eye movement technique first used by Shapiro. Alternative stimuli include auditory stimuli that alternate between left and right speakers or headphones and physical stimuli such as tapping of the therapist's hands or tapping devices.<sup>[16]</sup>

Most meta-analyses have found that the inclusion of bilateral eye-movements within EMDR makes little or no difference to its effect.<sup>[17][18][19]</sup> Meta-analyses have also described a high risk of allegiance bias in EMDR studies.<sup>[20]</sup> One 2013 meta-analysis with fewer exclusion criteria found a moderate effect.<sup>[21]</sup>

## Research

[edit]

## Effectiveness

[edit]

Systematic reviews in 2013, including a Cochrane study comparing EMDR with other psychotherapies in the treatment of chronic PTSD found EMDR to be as effective as TF-CBT (trauma-focused cognitive behavioral therapies).<sup>[22][23]</sup> A 2018 systematic review found moderate strength of evidence supporting the effectiveness of EMDR in reducing symptoms of PTSD and depression, as well as increasing the likelihood of patients losing their PTSD diagnosis.<sup>[24]</sup> A 2020 systematic review concluded: "A recent increase in RCTs [randomized controlled trials] of psychological therapies for PTSD, results in a more confident recommendation of CBT-T and EMDR as the first-line treatments."<sup>[25]</sup> A 2023 Cochrane systematic review analyzed psychosocial interventions for survivors of rape and sexual assault experienced during adulthood and concluded that EMDR is a "first-line treatment" for PTSD along with other trauma-focused psychotherapies, such as Cognitive Processing Therapy and Prolonged Exposure.<sup>[26]</sup>

## Client experience

[edit]

In a 2021 systematic review of 13 studies, clients had mixed perceptions of the effectiveness of EMDR therapy.<sup>[27]</sup>

## Treating conditions other than PTSD

[edit]

EMDR has been tested on a variety of other mental health conditions with mixed results.<sup>[28]</sup>

- A 2021 systematic review and meta-analysis found EMDR to have a moderate benefit in treating depression, but the number and quality of the studies were low.<sup>[29]</sup>
- Positive effects have also been shown for certain anxiety disorders, but the number of studies was low and the risk of bias high.<sup>[28]</sup> The American Psychological Association describes EMDR as "ineffective" for the treatment of panic disorder.<sup>[30]</sup>
- EMDR has been found to cause strong effects on dissociative identity disorder patients, leading to recommendations for adjusted use.<sup>[31][32]</sup>
- A 2023 systematic review of evidence found EMDR's effectiveness in treating mental health conditions of children and adolescents who have been sexually abused is limited.<sup>[33]</sup>

## Professional practice guidelines

[edit]

- The World Health Organization's 2013 report on stress-related conditions found insufficient evidence to support EMDR for acute symptoms of traumatic stress.<sup>[34]</sup> Its 2023 guideline for mental, neurological and substance use disorders recommended EMDR with moderate evidence for adults and children in treating PTSD.<sup>[35]</sup>
- The 2018 International Society for Traumatic Stress Studies practice guidelines "strongly recommend" EMDR as an effective treatment for post-traumatic stress symptoms.<sup>[36]</sup>
- As of 2017, the American Psychological Association "conditionally recommends" EMDR for the treatment of PTSD in adults, meaning its use is suggested rather than recommended.<sup>[37]</sup>
- The UK National Institute for Health and Care Excellence's 2018 PTSD guidelines found low-to-very-low evidence of efficacy for EMDR in treating PTSD, but what was available justified recommending it for non combat-related trauma.<sup>[38][39]</sup>
- A 2017 joint report from the US Departments of Veterans Affairs and Defense describes the evidence for EMDR in the treatment of PTSD as "strong."<sup>[40]</sup>
- The Australian 2013 National Health and Medical Research Council guidelines recommends EMDR for the treatment of PTSD in adults with its highest grade of evidence, noting that "EMDR now includes most of the core elements of standard trauma-focussed CBT (TF-CBT)" and "the two variants of trauma-focussed therapy are not statistically different."<sup>[41]</sup>
- The Institute of Medicine's 2008 report on the treatment of PTSD found insufficient evidence to recommend EMDR, and criticized many of the available studies for methodological flaws including allegiance bias and insufficient controls.<sup>[42]</sup>
- The Dutch National Steering Committee on Mental Health Care has released multidisciplinary guidelines which describe "insufficient scientific evidence" to support EMDR in the acute period following a stressful event (2008),<sup>[43]</sup> but recommend EMDR's use in chronic PTSD (2003).<sup>[44]</sup>*[page needed]*

## Criticism

[edit]

EMDR is controversial among some scholars in the psychological community.[45][46][47] It is used by some practitioners for trauma therapy and in the treatment of complex post-traumatic stress disorder.[48][49]

EMDR has been called a purple hat therapy because any effectiveness is provided by the underlying therapy (or the standard treatment), not from EMDR's distinctive features.[50][51]

Some scholars have criticized Francine Shapiro for repeatedly increasing the length and expense of training and certification, allegedly in response to the results of controlled trials that cast doubt on EMDR's efficacy.[52][53] This included requiring the completion of an EMDR training program in order to be qualified to administer EMDR properly after researchers using the initial written instructions found no difference between no-eye-movement control groups and EMDR-as-written experimental groups. Further changes in training requirements and/or the definition of EMDR included requiring level II training when researchers with level I training still found no difference between eye-movement experimental groups and no-eye-movement controls and deeming "alternate forms of bilateral stimulation" (such as finger-tapping) as variants of EMDR by the time a study found no difference between EMDR and a finger-tapping control group.[52] Such changes in definition and training for EMDR have been described as "ad hoc moves [made] when confronted by embarrassing data".[54]

EMDR adds a number of techniques that do not appear to contribute to therapeutic effectiveness, e.g., bilateral stimulation.[10] EMDR is classified as one of the "power therapies" alongside thought field therapy, Emotional Freedom Techniques and others – so called because these therapies are marketed as being superior to established therapies which preceded them.[55]

EMDR has been characterized as pseudoscience, because the underlying theory and primary therapeutic mechanism are unfalsifiable and non-scientific. EMDR's founder and other practitioners have used untestable hypotheses to explain studies which show no effect.[56] The results of the therapy are non-specific, especially if directed eye movements are irrelevant to the results. When these movements are removed, what remains is a broadly therapeutic interaction and deceptive marketing.[53][57] According to neurologist Steven Novella:

[T]he false specificity of these treatments is a massive clinical distraction. Time and effort are wasted clinically in studying, perfecting, and using these methods, rather than focusing on the components of the interaction that actually work.[58]

Furthermore, Novella argues that investigation into EMDR has been characterised by poor-quality studies, rather than tightly-controlled trials that could justify or falsify the mechanisms that have been proposed to support it. Novella writes that the research quantity nevertheless means that EMDR has claimed a place among accepted treatments and is "not likely going away anytime soon, even though it is a house of cards built on nothing".[59]

EMDR has been characterised as a modern-day mesmerism, as the therapies have striking resemblances, from the sole inventor who devises the system while out walking, to the large business empire built on exaggerated claims. In the case of EMDR, these have included the suggestions that EMDR could drain violence from society and be useful in treating cancer and

HIV/AIDS.<sup>[60]</sup> Psychology historian Luis Córdón has compared the popularity of EMDR to that of other cult-like pseudosciences, facilitated communication and thought field therapy.<sup>[61]</sup>

A parody website advertising "sudotherapy" created by a fictional "Fatima Shekel" appeared on the internet in the 1990s.<sup>[62]</sup><sup>[63]</sup><sup>[64]</sup> Proponents of EMDR described the website as libelous, since the website contained an image of a pair of shifting eyes following a cat named "Sudo", and "Fatima Shekel" has the same initials as EMDR's founder, Francine Shapiro.<sup>[64]</sup> However, no legal action took place against the website or its founders.<sup>[64]</sup>

## Society and culture

[edit]

- Sandra Bullock used EMDR following a home invasion by a stalker in 2014.<sup>[65]</sup>
- In 2019 Jameela Jamil said she partook in EMDR therapy to treat her post traumatic stress disorder.<sup>[66]</sup><sup>[67]</sup>
- In 2021 Prince Harry took a course of EMDR and filmed a session for Oprah Winfrey during a mental health television documentary.<sup>[68]</sup><sup>[65]</sup>
- In 2022 BBC war correspondent Fergal Keane, who suffered from PTSD, credited his EMDR therapist with helping save his life.<sup>[69]</sup>

## See also

[edit]

- Abreaction
- List of topics characterized as pseudoscience
- Treatments for PTSD

## References

[edit]

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- <sup>2</sup> <sup>^</sup> M. Rosen, Gerald (2023-05-23). "Revisiting the Origins of EMDR". *Journal of Contemporary Psychotherapy*. doi:10.1007/s10879-023-09582-x. ISSN 1573-3564.
- <sup>3</sup> <sup>^</sup> Grimley, Bruce (2014). "Origins of EMDR- a question of integrity?". *The Psychologist*.
- <sup>4</sup> <sup>^</sup> Grimley, Bruce. "What is Neurolinguistic Programming, (NLP)".
- <sup>5</sup> <sup>^</sup> "Post-Traumatic Stress Disorder". National Institute for Health and Care Excellence. 2018-12-05. Retrieved 2021-12-03. "1.6.20 EMDR for adults should: be based on a validated manual; typically be provided over 8 to 12 sessions, but more if clinically indicated, for example if they have experienced multiple traumas; be delivered by trained practitioners with ongoing supervision; be delivered in a phased manner and include psychoeducation about reactions to trauma, managing distressing memories and situations, identifying and treating target memories (often visual images), and promoting alternative positive beliefs about the

self; use repeated in-session bilateral stimulation (normally with eye movements) for specific target memories until the memories are no longer distressing; include the teaching of self-calming techniques and techniques for managing flashbacks, for use within and between sessions."

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## External links

[edit]

- EMDR Institute (US)

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Psychotherapy

- Psychodynamic**
  - Adlerian therapy
  - Analytical therapy
  - Mentalization-based treatment
  - Psychoanalysis
  - Transference focused psychotherapy

- Cognitive and behavioral**
  - Clinical behavior analysis
    - Acceptance and commitment therapy
    - Functional analytic psychotherapy
  - Cognitive behavioral therapy
    - Cognitive therapy
    - Dialectical behavior therapy
    - Mindfulness-based cognitive therapy
    - Rational emotive behavior therapy

- Schools**
  - Humanistic**
    - Emotionally focused therapy
    - Existential therapy
    - Focusing
    - Gestalt therapy
    - Logotherapy
    - Person-centered therapy

- Other**
  - Art therapy
  - Dance therapy
  - Feminist therapy
  - Music therapy
  - Narrative therapy
  - Play therapy
  - Reality therapy
  - Systemic therapy
  - Transactional analysis
  - List

- Integrative**
  - Eclectic psychotherapy
  - Multimodal therapy
  - Transtheoretical model

- Approaches**
- Brief psychotherapy
  - Counseling
  - Online counseling
  - Residential treatment
  - Self-help
  - Support groups

- Research**
- Clinical formulation
  - Clinical pluralism
  - Common factors theory
  - Discontinuation
  - History
  - Practitioner–scholar model

- Behaviour therapy**
- Aversion therapy
  - Chaining
  - Contingency management
    - Shaping
    - Stimulus control
    - Token economy
  - Counterconditioning
  - Desensitization/Exposure therapy
    - Systematic desensitization

- Techniques**
- Other individual therapy**
- Autogenic training
  - Biofeedback
  - Clean language
  - Cognitive restructuring
  - Emotion regulation
    - Affect labeling
  - Free association
  - Homework
  - Hypnotherapy
  - Modeling

- Group psychotherapy**
- Co-therapy
  - Couples therapy
  - Family therapy
  - Psychodrama
  - Sensitivity training

- Philippe Pinel
- Josef Breuer
- Sigmund Freud
- Pierre Janet
- Alfred Adler
- Sándor Ferenczi
- Carl Jung
- Ludwig Binswanger
- Melanie Klein
- Otto Rank
- Karen Horney
- Harry Stack Sullivan
- Fritz Perls
- Anna Freud
- Donald Winnicott
- Wilhelm Reich
- Milton H. Erickson
- Jacques Lacan
- Erik Erikson
- Carl Rogers
- Viktor Frankl
- George Kelly
- Rollo May
- Virginia Axline
- Carl Whitaker
- Albert Ellis
- Silvano Arieti
- James Bugental
- Joseph Wolpe
- Virginia Satir
- Aaron Beck
- Salvador Minuchin
- Paul Watzlawick
- Haim Ginott
- Ogden Lindsley
- Paul Watzlawick
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- Eugene Gendlin
- R. D. Laing
- Jean Baker Miller
- Otto F. Kernberg
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- Irvin D. Yalom
- Arnold Lazarus
- Lorna Smith Benjamin
- Marsha M. Linehan
- Vittorio Guidano
- Les Greenberg
- William R. Miller

**People**

## **Associations**

- Association for the Advancement of Psychotherapy
- Association for Applied Psychophysiology and Biofeedback
- Association for Behavioral and Cognitive Therapies
- Association for Behavior Analysis International
- European Association for Psychotherapy
- Society for Psychotherapy Research
- World Council for Psychotherapy

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## Pseudoscience

List of topics characterized as pseudoscience

## **Terminology**

- Cargo cult science
- Charlatan
- Crank
- Fringe theory
  - Fringe science
  - Pseudoarchaeology
  - Pseudohistory
  - Pseudomathematics
- Junk science
- Paranormal
- Pathological science
- Quackery
- Snake oil
- Superseded scientific theory
- True-believer syndrome
- *Voodoo Science*

## **Medicine**

- Acupuncture
- Aromatherapy
- Adrenal fatigue
- Alternative medicine
- Anthroposophic medicine
- Applied kinesiology
- Ayurveda
- Bates method
- Biorhythms
- Bloodletting
- Body memory
- Chiropractic
- Chromotherapy
- Correactology
- Cryonics
- Crystal healing
- Cupping
- Detoxification
  - Colon cleansing
- Doctrine of signatures
- Doktor Koster's Antigaspills
- Ear candling
- Electromagnetic hypersensitivity
- Energy medicine
- Fad diet
- FasciaBlaster
- Germ theory denialism
- HIV/AIDS denialism
- Homeopathy
- Humorism
- Iridology
- Leaky gut syndrome
- LGBT chemicals conspiracy theory
- Lunar effect
- Macrobiotic diet
- Magnet therapy
- Miracle Mineral Supplement
- Naturopathy
- Palmistry
- Panchagavya
- Patent medicine
- Phrenology
- Primal therapy
- Radionics
- Reiki
- Traditional medicine
  - Traditional Chinese medicine
- Trepanning

**Promoters of  
pseudoscience**

- Sucharit Bhakdi
- Del Bigtree
- Igor and Grichka Bogdanoff
- Brigitte Boisselier
- Rhonda Byrne
- Robert Charroux
- Deepak Chopra
- Clonaid
- Vernon Coleman
- Ignatius L. Donnelly
- Gaia, Inc.
- Max Gerson
- Nicholas Gonzalez
- Goop (company)
- Graham Hancock
- David Icke
- William Donald Kelley
- Robert F. Kennedy Jr.
- Corentin Louis Kervran
- The Light (newspaper)
- Mike Lindell
- Jenny McCarthy
- Joseph Mercola
- Judy Mikovits
- Ministry of Ayush
- Theodor Morell
- Hans Alfred Nieper
- Mehmet Oz
- Raël (Claude Vorilhon)
- Robby Starbuck
- Randolph Stone
- Paul Joseph Watson
- Andrew Wakefield

**Related topics**

- Bogdanov affair
- Bourgeois pseudoscience
- Demarcation problem
- Scientific method
- Suppressed research in the Soviet Union



## Resources

- Committee for Skeptical Inquiry
- *Cults of Unreason*
- *An Encyclopedia of Claims, Frauds, and Hoaxes of the Occult and Supernatural*
- *Fads and Fallacies in the Name of Science*
- *Fortean Times*
- James Randi Educational Foundation
- Quackwatch
- *Skeptical Inquirer*
- *The Demon-Haunted World*
- *The Natural History of Quackery*
- *The Psychology of the Occult*
- *The Ragged Edge of Science*
- *The Skeptic Encyclopedia of Pseudoscience*
- *The Skeptic's Dictionary*

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