



PTSD

Education

General Information about PTSD

Stress-induced disorders can follow an exposure to trauma. Indeed, it is normal for any person to experience fear and anxiety after a traumatic event. The “fight-or-flight” response is a stress response that prepares our body to escape danger or to defend ourselves during a threat. Most people who experience a traumatic event will recover.

Unfortunately, for some who have faced extreme danger or threats, or who have prolonged exposure to danger, the stress system is overwhelmed. In such cases, an individual may develop more prolonged symptoms, or even chronic symptoms, that begin to interfere with their ability to function daily. Post-Traumatic Stress Disorder (PTSD) is present when a group of symptoms persist over one month and cause impairment in daily function.

The following symptoms (I-VI) must be present to qualify for a diagnosis of PTSD:

I. The individual must have experienced actual or threatened death or serious injury:

- Directly experiencing a traumatic event(s)
- Witnessing, in person, the injury or death of another
- Learning that a close family member or close friend has been the victim of violence or a dangerous accident
- Extreme exposure to the aversive details of traumatic events (such as a police officer might experience when investigating severe child abuse).

II. The individual experiences at least one or more Intrusive Symptoms after the traumatic event(s):

- Recurrent distressing memories (in children this may appear in play)
- Recurrent distressing dreams with content related to the traumatic event(s)
- Dissociative symptoms: flashbacks in which the individual feels or acts as if the traumatic event were occurring in the present (in young children this may be seen in play)
- Intense emotional distress in response to internal or external cues related to the traumatic event(s)
- Marked physiologic reactions to internal and external cues (e.g., shaking, tremors)
- The individual experiences one or both examples of Avoidance:
- Avoids or makes efforts to avoid distressing memories, thoughts, or emotions related to the trauma
- Avoidance of reminders of the trauma such as people, situations, or places



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The following symptoms (I-VI) must be present to qualify for a diagnosis of PTSD Cont.

IV. The individual experiences 2 or more examples of Negative Alterations in thoughts or mood, associated with and beginning after the traumatic event:

- Unable to remember important details or aspects of the traumatic event
- Persistent and exaggerated negative beliefs about themselves, others, or the world (e.g., "The world is a bad place, where no one can be safe.")
- Persistent and distorted thoughts as to the cause or consequences of the trauma (e.g., self-blame, guilt)
- Persistent negative emotions (e.g., shame, anger, fear)
- A marked decrease in interests or participation in activities
- Feeling detached or estranged from others
- Inability to experience positive emotions (e.g., cannot feel happy)

V. The individual exhibits at least 2 symptoms of marked alterations in the level of the body's arousal or in exaggerated reactivity:

- Irritability or angry outbursts that are out of proportion to the triggers
- Self-destructive behaviors or reckless behaviors
- Hypervigilance (constantly on alert for danger)
- Exaggerated startle responses
- Poor or impaired concentration
- Difficulty falling or staying asleep

VI. The symptoms must cause the individual to experience impairment in social, occupational, family relationships, or other important areas of daily functioning; and cannot be due solely to injury, medical conditions, or substance abuse.

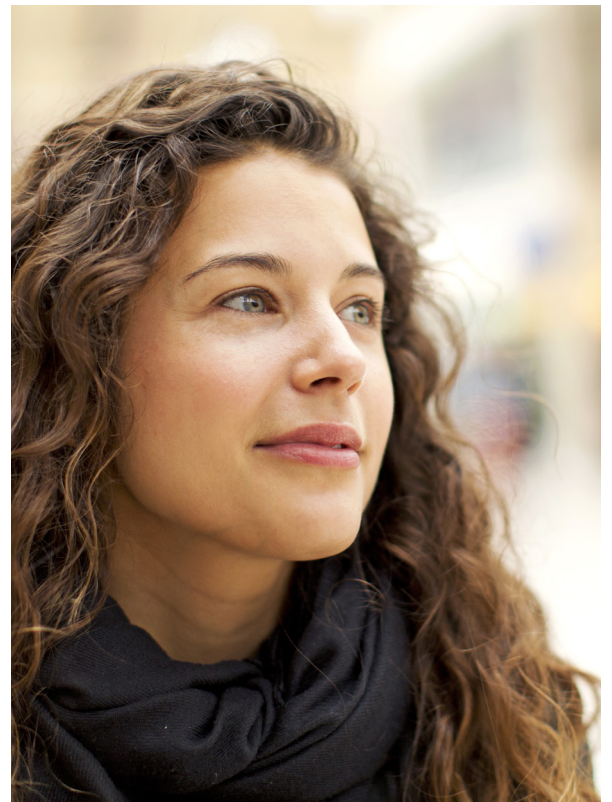
Development of PTSD:

PTSD usually develops within 1 month of a traumatic event but can have a delayed onset. It is estimated that about 3.6% of adult Americans (5.2 million) may experience PTSD during a year and about 7.8% over a lifetime. Women are more susceptible to developing PTSD than men, but women are also more likely to be victims of sexual trauma and assault than males. PTSD can be associated with other psychiatric disorders.

When these illnesses co-exist, it can result in negative impacts to the outcome unless all the disorders are effectively treated.

Commonly associated disorders and consequences include:

- Depression
- Anxiety Disorders including Panic Disorder
- Substance Use Disorders
- Eating Disorders
- Suicide
- Headaches
- Muscle Aches



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Development of PTSD Continued:

Risk Factors: Several factors can increase the likelihood of the development of PTSD after exposure to trauma, including examples such as:

- Injury or permanent physical impairment
- Childhood trauma
- A lack of social support
- Exposure to a situation in which the individual experienced extreme fear and helplessness
- Added additional stresses such as losses, financial hardship, isolation
- Occupation requires exposure to traumatic situations/ events: police officer, soldiers, first-responders
- Individual already suffered from another psychiatric illness such as depression or anxiety prior to the onset of PTSD
- Substance Use Disorders
- Genetics may play a role in an individual's vulnerability
- Sexual trauma



Causes of PTSD:

PTSD is a complex disorder. While traumatic events are the trigger, science has not clearly identified why some persons develop this illness while others recover. One theory of PTSD proposes that the stress response of the body becomes overwhelmed.

Normally, during stress, the hypothalamic pituitary axis (HPA) is a system that produces hormonal signals that result in brain and body changes in response to stress. An area of the brain known as the locus coeruleus is activated and noradrenaline is increased. When stress is very extreme or prolonged, these normally adaptive reactions can become altered.

The area of the frontal cortex of the brain that should have a role in regulating thoughts and emotions is no longer able to regulate the amygdala – an area of the brain that plays a role in “fear conditioning” and is hyper-aroused. The brain can no longer efficiently extinguish the fear response. The brain and body continue to act as if a threat is present or become overly responsive to any perceived threats.

This results in many of the behavioral changes including the desire to avoid any triggers. Memories can be “over consolidated” by the hippocampus (an area in the brain that helps with creating memories). The individual may have difficulty letting go of distorted thoughts. Individuals with PTSD have been found to have a smaller hippocampus in some studies. Studies have also shown that individuals may have low levels of the neurotransmitter serotonin.

Due to the complexity of PTSD and the high association of other conditions (alcohol abuse, drug use, depression, anxiety), individuals who experience this condition often require a comprehensive approach to care. Salience Health offer such comprehensive care.

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Testing & Assessments

Standard Assessments:

Treatment begins with a thorough assessment of your needs. The initial diagnostic assessment will include a background history, and completion of some screening test. You will then meet with your provider who will complete your psychiatric evaluation and determine the issues that need to be addressed in your treatment plan.



Psychiatric Assessment: For the diagnosis of any co-occurring mental illness(es) or comorbidities.

Physical Exam: If you have not had a physical within the last year, you may need to visit your PCP, or if you do not have one, your provider can refer you to one of the Salience Health PCP's available onsite to assist you.

ECG: An electrocardiogram may be needed if cardiac symptoms are present or if you require a medication that may affect your blood pressure or pulse rate.

Neurological Evaluation: If you have experienced symptoms of blackouts, memory impairments, or had a history of head trauma, you may need to undergo an evaluation to determine the causes. Salience Health has a neurology partner available to assist you, if needed.

Sleep Study: Sleep disturbances can be common in PTSD but can also be due to co-existing physical health issues. Sleep studies may be performed if the provider is concerned that you need to have your sleep disturbance explored.

Lab Work: Your provider may request that you have laboratory testing to evaluate your general medical health. Your provider may also need to check labs periodically to monitor medications and medication impacts on your health status. Psychiatric conditions often have a negative impact on healthcare outcomes, so your provider must remain alert to your health status.

Additional Assessments Available:

Brainview: We know that behavioral health and physical health go hand-in-hand, and this assessment helps us see how they are impacting each other. The Brainview test is a cognitive assessment that provides information on your brain's functionality related to stress, memory, and cognition, while also tracking physical functions such as heart rate and metabolic rates. This test will help your provider develop a more informed treatment plan for you and better coordinate your overall care.

CNS Vital Signs Neurocognitive Panel: A Computerized Neurocognitive Screening (CNS) is an assessment that tells us how well your brain is managing tasks, such as working memory, concentration, processing speed, and executive functioning. These results can provide insight into how you may perform in your daily life at work and at home, and help your provider identify levels of impairment. The overall duration takes about one hour to complete.

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Treatment for Post-Traumatic Stress Disorder

Managing Stress & PTSD

Managing stress-related disorders requires a comprehensive approach. This can be especially true for those who have experienced long-lasting symptoms or who have developed significant complications of their illness. A multifaceted treatment plan will give an individual the best chance of achieving maximal improvement. Initially, after a traumatic event, most patients will benefit from psychological first aid.

During this early period, people who have experienced trauma need to hear that their emotional reactions are normal. Immediate treatment of the physiologic changes associated with trauma may also be of benefit early on. Individuals also need to have their basic needs for shelter, safety, food, and emotional support delivered.

Once the symptoms of PTSD appear, many individuals will require additional assistance. Remember that most recover, but some will experience a more debilitating course of illness. Several treatment options can be beneficial in managing PTSD:



Therapy

- **CBT Therapy:** Cognitive behavioral-based therapies help individuals to identify distorted thoughts and to develop skills to correct errors in thinking, improve coping strategies, and develop problem-solving skills. Salience Health offers several CBT classes that are available in an educational training format to help individuals with cognitive restructuring, learn self-soothing techniques, evaluate memories realistically, and make rational interpretations about consequences and causes of events. Anger management skills and relationships skills can also be addressed and can help to improve family and home life.
- **Exposure Therapy:** gradual planned exposures to traumatic memories, or to feared activities or objects can assist in conquering avoidance and fear. Salience Health therapy services can assist you in establishing a connection to a therapist who can work with you in this fashion.
- **EMDR:** this form of therapy combines CBT with eye-movements or repetitive movements which allow the individual to process distressing memories in a more comfortable manner.
- **CBT Chemical Dependency groups:** Educational groups designed to assist with recovery and skill building in a manner designed to support recovery. Salience Health therapy services offer this program and can assist those in need of care.
- **Family Therapy:** PTSD impacts not just the individual, but also those loved ones living with the individual. Families may struggle with symptoms such as detachment, irritability, or anger outbursts. Family therapy can assist the family members with developing an understanding of how PTSD impacts the individual and how they can help. It can offer the individual a chance to restore connections with loved ones.

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Treatment for Post-Traumatic Stress Disorder Cont.

Additional Assessments Available:

Medications may need to play a role in recovery. This can be especially true for those who may be struggling with significant depression or anxiety. Several different types of medications may be used to manage the symptoms of PTSD:

Antidepressant medications: Serotonin reuptake inhibitor and serotonin norepinephrine reuptake inhibitor type antidepressants are commonly used in PTSD. They can be useful in alleviating the mood and anxiety symptoms and to block panic attacks. It may take 6-12 weeks before these medications achieve maximal effects.

Antianxiety medications: Buspirone is an antianxiety medication that may be helpful and does not cause physical dependence. Benzodiazepines are not recommended for PTSD and in fact, have been found to prolong/limit the ability to work through the traumatic experiences. Additionally, these drugs do cause physical dependence and are subject to abuse.

Other medications may be used to manage the physical over reactivity often found in PTSD.

Beta blocking agents are sometimes used but work best in the early weeks after a traumatic event.

Sleep medications: Prazosin is an alpha-adrenergic antagonist medication that has been found to be helpful in eliminating recurring nightmares often associated with PTSD. Clonidine is another agent sometimes employed.

Agitation: medications such as Clonidine or guanfacine may be used to help with agitation. Low doses of atypical agents such as Risperdal are occasionally used, but these drugs do require close metabolic monitoring.



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Treatment for Post-Traumatic Stress Disorder Cont.

Achieving Better Outcomes

- TMS therapy is a form of neuromodulation therapy. Our brain is organized into groups of neurons that work together to complete specific tasks or control specific functions. These are called networks. When the connectivity within a network is disrupted, the network cannot effectively complete its assigned task. TMS therapy can be used to strengthen these network connections to improve function.
- While not FDA approved for PTSD, TMS therapy has been helpful in studies.
- TMS therapy is approved for the treatment of treatment resistant depression, a condition that commonly accompanies PTSD. TMS may also benefit the anxiety symptoms.
- TMS is a safe, tolerable outpatient treatment that can be delivered over a short visit to the office daily for several weeks. Our Patient Advocate is available to meet with you to explore any questions that you may have about TMS therapy.



Exercise & Diet

- Exercise is an excellent coping strategy for frustration, anger, anxiety, and sadness. Exercise increases our normal “feel-good” chemicals in our brain.
- Exercise supports overall health and wellness. It has been demonstrated to prevent the development of depressed mood when employed on a regular basis.
- Follow a diet that support brain health. Diets such as the Mediterranean diet or the DASH diet emphasize the consumption of antioxidants and anti-inflammatory foods such as berries, nuts, and green leafy vegetables. A healthy diet may be one of our best strategies to prevent cognitive decline as we age.



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Better Outcomes with Treatment

Things to Avoid:

- Things to Avoid:
- Using drugs or alcohol to manage your symptoms. This disorder is associated with a high risk of developing problems with both.
- Isolating and avoiding. While the desire to avoid people in an attempt to avoid painful memories or emotions may be understandable, isolation will not help you get better.
- Avoid engaging in reckless or self-destructive behaviors.
- If you have thoughts of self-injury, do not hide these. Seek help immediately.
- Do not engage in health-harming behaviors such as smoking or overeating as a way of coping. These behaviors make you feel worse over time.
- Do not shut out family and friends – both you and your family must learn that you are different than you were before the trauma. Work together to come to terms and adapt together.
- Do not quit taking medications or attending therapy because it has become uncomfortable. In the long run, you have the chance to feel better and move forward.
- Do not give up hope: It takes time to heal. Sometimes progress may be slow but stick with it and fight to get better.



Ways to Support Your Recovery:

- Communicate with your provider and be open about symptoms or struggles you may be experiencing.
- Set SMART goals: be realistic, set achievable goals and goals you can measure. Do not expect to fix everything at once.
- Increase your activity: rejoin life and become involved with others.
- Learn to comfort and sooth yourself. Learn new “self-talk” that predicts positive outcomes rather than defeat.
- Develop a social support network. You are not alone. Many others have experienced trauma and can understand your experience.
- Get help as soon as possible – the earlier the better. Early intervention is associated with the best chance of recovery.
- Get into a support group. Sharing experiences with others who have had similar experiences can help. Learn from those who have found ways to get better.
- Take time daily for yourself. Find something that makes you feel better and is positive and practice it.
- Resume activities that you used to like and had given up.
- Practice good sleep habits.