

## **Post-Traumatic Stress Disorder**

### **What is PTSD?**

Post-Traumatic Stress Disorder, or PTSD, is a psychiatric disorder that can occur following the experience or witnessing of life-threatening events such as military combat, natural disasters, terrorist incidents, serious accidents, or violent personal assaults like rape. People who suffer from PTSD often relive the experience through nightmares and flashbacks, have difficulty sleeping, and feel detached or estranged, and these symptoms can be severe enough and last long enough to significantly impair the person's daily life.

PTSD is marked by clear biological changes as well as psychological symptoms. PTSD is complicated by the fact that it frequently occurs in conjunction with related disorders such as depression, substance abuse, problems of memory and cognition, and other problems of physical and mental health. The disorder is also associated with impairment of the person's ability to function in social or family life, including occupational instability, marital problems and divorces, family discord, and difficulties in parenting.

### **Understanding PTSD**

PTSD is not a new disorder. There are written accounts of similar symptoms that go back to ancient times, and there is clear documentation in the historical medical literature starting with the Civil War, where a PTSD-like disorder was known as "Da Costa's Syndrome." There are particularly good descriptions of post-traumatic stress symptoms in the medical literature on combat veterans of World War II and on Holocaust survivors.

Careful research and documentation of PTSD began in earnest after the Vietnam War. The National Vietnam Veterans Study estimated in 1988 that the prevalence of PTSD in that group was 15.2% at that time, and that 30% had experienced the disorder at some point since returning from Vietnam.

PTSD has subsequently been observed in all veteran populations that have been studied, including World War II, Korean conflict, and Persian Gulf, and in United Nations peacekeeping forces deployed to other war zones around the world. PTSD also appears in military veterans in other countries with remarkably similar findings — that is, Australian Vietnam veterans experience much the same symptoms as American Vietnam veterans.

PTSD is not only a problem for veterans, however. Although there are unique cultural- and gender-based aspects to the disorder, it occurs in both men and women, adults and children, Western and non-Western cultural groups, and all socioeconomic strata. A national study of American civilians conducted in 1995 estimated that the lifetime prevalence of PTSD was 5% in men and 10% in women.

### **How does PTSD develop?**

Most people who are exposed to a traumatic, stressful event experience some of the symptoms of PTSD in the days and weeks following exposure. Available data suggest that about 8% of men and 20% of women go on to develop PTSD, and roughly 30% of these individuals develop a chronic form that persists throughout their lifetimes.

The course of chronic PTSD usually involves periods of symptom increase followed by remission or decrease, although for some individuals symptoms may be unremitting and severe. Some older veterans who report a lifetime of only mild symptoms have experienced significant increases following retirement, severe medical illness in themselves or their spouses, or reminders of their military service such as reunions or media broadcasts of the anniversaries of war events.

### **How is PTSD assessed?**

In recent years a great deal of research has been aimed at development and testing of reliable assessment tools. It is generally thought that the best way to diagnose PTSD — or any psychiatric disorder, for that matter — is to combine findings from structured interviews and questionnaires with physiological assessments. A multi-method approach is especially helpful to address concerns that some patients might be either denying or exaggerating their symptoms.

### **How Common is PTSD?**

An estimated 7.8 percent of Americans will experience PTSD at some point in their lives, with women (10.4%) twice as likely as men (5%) to have PTSD. About 3.6 percent of U.S. adults ages 18 to 54 (5.2 million people) have PTSD during the course of a given year. This represents a small proportion of those who have experienced a traumatic event at some point in their lives, for 60.7% of men and 51.2% of women reported at least one traumatic event. The traumatic events most often associated with PTSD are: for men: rape, combat exposure, childhood neglect, and childhood physical abuse. For women: rape, sexual molestation, physical attack, being threatened with a weapon, and childhood physical abuse.

About 30 percent of the men and women who have spent time in war zones experience PTSD. An additional 20 to 25 percent have had partial PTSD at some point in their lives. Thus more than half of all male Vietnam veterans and almost half of all female Vietnam veterans have experienced "clinically serious stress reaction symptoms." PTSD has also been detected among veterans of the Gulf War, with some estimates running as high as 8 percent.

### **Who is Most Likely to Develop PTSD?**

1. Those who experience greater stressor magnitude and intensity, unpredictability, uncontrollability, sexual (as opposed to nonsexual) victimization, real or perceived responsibility, and betrayal.
2. Those with prior vulnerability factors such as genetics, early age of onset and longer-lasting childhood trauma, lack of functional social support, and concurrent stressful life events.
3. Those who report greater perceived threat or danger, suffering or being upset, terror, and horror or fear.
4. Those with a social environment which produces shame, guilt, stigmatization, or self-hatred.

### **What are the Consequences Associated with PTSD?**

PTSD is associated with a number of distinctive neurobiological and physiological changes. PTSD may be associated with stable neurobiological alterations in both the central and autonomic nervous systems, such as altered brainwave activity, decreased volume of the hippocampus, and abnormal activation of the amygdala. Both of these brain structures are involved in the processing and integration of memory. The amygdala has also been found to be involved in coordinating the body's fear response.

Psychophysiological alterations associated with PTSD include hyperarousal of the sympathetic nervous system, increased sensitivity of the startle reflex, and sleep abnormalities.

People with PTSD tend to have abnormal levels of key hormones involved in response to stress. Thyroid function seems to be enhanced in people with PTSD. Some studies have shown that cortisol levels are lower than normal and epinephrine and norepinephrine are higher than normal. People with PTSD also continue to produce higher than normal levels of natural opiates after the trauma has passed. An important finding is that the neurohormonal changes seen in PTSD are distinct from, and actually opposite to, those seen in major depression; also, the distinctive profile associated with PTSD is seen in individuals who have both PTSD and depression.

PTSD is associated with increased likelihood of co-occurring psychiatric disorders. In a large-scale study, 88 percent of men and 79 percent of women with PTSD met criteria for another psychiatric disorder. The co-occurring disorders most prevalent for men with PTSD were alcohol abuse or dependence (51.9 percent), major depressive episode (47.9 percent), conduct disorder (43.3 percent), and drug abuse and dependence (34.5 percent). The disorders most frequently comorbid with PTSD among women were major depressive disorder (48.5 percent), simple phobia (29 percent), social phobia (28.4 percent) and alcohol abuse/dependence (27.9 percent).

PTSD also makes a significant impact on psychosocial functioning, independent of comorbid conditions. For instance, Vietnam veterans with PTSD were found to have profound and pervasive problems in their daily lives. This included problems in family and other interpersonal relationships, employment, and involvement with the criminal justice system.

Headaches, gastrointestinal complaints, immune system problems, dizziness, chest pain, or discomfort in other parts of the body are common in people with PTSD. Often, medical doctors treat the symptoms without being aware that they stem from PTSD.

### **What is the Course of PTSD?**

Most people who are exposed to a traumatic stressor experience some of the symptoms of PTSD in the days and weeks following exposure. Available data suggest that among individuals who go on to develop PTSD, roughly 30 percent develop a chronic form that persists throughout an individual's lifetime. The course of chronic PTSD usually has periods of symptom exacerbation and remission or decrease, although for some individuals symptoms may persist at an unremitting, severe level. Some older veterans who report a lifetime of no or only mild symptoms have experienced symptom exacerbations following retirement, severe medical illness in themselves or their spouses, or exposure to reminders of their military service (such as reunions or media broadcasts of the anniversaries of war events).

### **How is PTSD Treated?**

PTSD is treated by a variety of forms of psychotherapy and drug therapy. There is no definitive treatment, and no cure, but some treatments appear to be quite promising, especially cognitive-behavioral therapy, group therapy, and exposure therapy, in which

the patient repeatedly relives the frightening experience under controlled conditions to help him or her work throughout the trauma. Studies have also shown that medications help ease associated symptoms of depression and anxiety and help ease sleep. The most widely-used drug treatments for PTSD are the selective serotonin reuptake inhibitors, such as Prozac and Zoloft. At present, cognitive-behavioral therapy appears to be somewhat more effective than drug therapy, but it would be premature to conclude that drug therapy is less effective overall since drug trials for PTSD are at a very stage. Drug therapy definitely appears to be highly effective for some individuals and is helpful for many more. Also, the recent findings on the biological changes associated with PTSD have spurred new research into drugs that target these biological changes, which may lead to much increased efficacy.