

Dealing With Trauma

Frightening Events Can Have Lasting Effects

Imagine seeing a fellow soldier killed by a roadside bomb. Or searching through the rubble of the World Trade Center for survivors. Or being sexually assaulted. You're probably even trying to push those images out of your head as you read this. Some people find it impossible to stop thinking about traumatic experiences. They may have recurring nightmares. Fear and anxiety could begin to interfere with every aspect of life.

It was called Soldier's Heart in the Civil War. Since then, it's gone by such names as Shell Shock, Battle Fatigue and Post-Vietnam Syndrome. Now we call it post-traumatic stress disorder, PTSD. And we know that it affects people other than those who've been to war.

Anyone who's been through an experience that involved physical harm or the threat of it can develop PTSD. Causes include mugging, rape, torture, child abuse, car accidents and natural disasters.

After a trauma, you may startle easily and be constantly on guard. You might become emotionally numb or lose interest in things you used to enjoy. You may have trouble feeling affectionate. You could become irritable, aggressive or even violent. It's common to avoid situations that



remind you of the incident and to have trouble sleeping.

These normal responses to horrific events usually become better over time. Most people don't forget what has happened to them, but they can eventually put the incident in the back of their minds. They carry on with their day-to-day lives and don't go on to develop PTSD.

For some people, however, the symptoms don't fade away. Their anxieties become so overwhelming that they are no longer able to focus on their daily lives.

"Not all traumatic responses are PTSD," says Dr. Meena Vythilingam of the Mood and Anxiety Disorders

Program at NIH's National Institute of Mental Health (NIMH). "It becomes PTSD in a small subgroup, when these symptoms persist over a month, cause extreme distress or interfere with the ability to function at work, school or home."

People with PTSD can't stop thinking about the traumatic experience during the day and have nightmares about it when they sleep. Some people actually relive the event by vividly re-experiencing the sounds, smells or feelings of the original trauma. These are called flashbacks.

Memories, thoughts, feelings or even flashbacks of a trauma can be triggered by ordinary things, such as a door slamming or a car backfiring on the

street. To avoid being reminded of the trauma, people with PTSD might refuse to talk about it and stop going places that remind them of it.

PTSD is considered a chronic

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Wise Choices Getting Help

If you need help dealing with PTSD or another mental illness and don't know where to turn, talk to someone you trust who has experience in mental health. Ask their advice on where to seek treatment. Here are the types of people and places that will make a referral or provide diagnostic and treatment services:

- Family doctors
- Mental health specialists, such as psychiatrists, psychologists, social workers or mental health counselors
- Religious leaders/counselors

- Health maintenance organizations
- Community mental health centers
- Hospital psychiatry departments and outpatient clinics
- University- or medical school-affiliated programs
- State hospital outpatient clinics
- Social service agencies
- Private clinics and facilities
- Employee assistance programs
- Local medical and/or psychiatric societies

In times of crisis, the emergency room may be able to provide temporary help for a mental health problem, and will be able to tell you where and how to get further help.

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anxiety disorder. It affects both men and women. Men are more likely to be exposed to traumatic events, and about 5-6% of them develop PTSD. Women are more likely to develop PTSD after being exposed to a traumatic event, however, with 8-14% developing PTSD. The chance of developing PTSD is highest after sexual trauma.

"PTSD is a brain disorder. It is not caused by a moral weakness or a character flaw," Vythilingam explains. "There are well-documented changes in the function and structure of the brain regions mediating fear and memory in PTSD."

If you don't get treatment, PTSD can persist for years. In fact, it never fades for about 30% of those who aren't treated. PTSD goes hand in hand with depression. People with PTSD also often abuse drugs and alcohol.

Vythilingam says that there is no one treatment for PTSD. Studies have found that both medications and psychotherapy (talk therapy), during which a therapist helps you to face your fears, can be effective.

New strategies for developing better PTSD treatments will come from a better understanding of the chemical and structural changes in



Web Sites

- www.nimh.nih.gov/healthinformation/traumaticmenu.cfm
- www.nimh.nih.gov/HealthInformation/ptsdmenu.cfm

the brain that are associated with PTSD. Currently, NIMH is funding several brain imaging studies to gain insight into the changes that take place in the brain during PTSD.

NIMH is also now recruiting for volunteers to participate in a clinical trial to test a potential new medication for PTSD. Called an NK1 antagonist, the drug is designed to block the activity of substance P, a pain-related chemical that is produced by the central nervous system during times of anxiety. Vietnam veterans with PTSD, for example, produce higher levels of substance P when they view scenes related to combat. Substance P works in the brain through a receptor called NK1. Researchers consider this interaction a prime target for PTSD treatment.

In the pilot study, researchers will test this experimental drug in a small group of people. If the compound proves promising, it will then be tested in larger groups. The trial is taking place at NIH's Clinical Center in Bethesda, MD and at Mount Sinai Medical Center in New York City. If you're interested in participating, go to www.clinicaltrials.gov/ct/show/NCT00383786?order=2 or call 866-627-6464 (TTY: 1-866-411-1010). You can find information about other clinical trials at <http://patientinfo.nimh.nih.gov/>.

The important thing to remember about PTSD is that if you suspect you or someone you know has it, don't hesitate to seek help. Vythilingam says, "You should not feel you should have to walk alone after a traumatic event." ■

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Figuring Out Fibromyalgia

Perplexing Pain and Fatigue

An unknown cause. A difficult diagnosis. No known cure. No wonder people with fibromyalgia syndrome, or FMS, can feel perplexed, under attack and isolated. FMS brings fatigue that drags you down and persistent pain that may render you nearly helpless. Researchers have been working to understand what fibromyalgia is and are making progress in developing treatments for the debilitating syndrome.

FMS is a chronic pain condition that can occur by itself or along with certain conditions such as arthritis. In addition to muscle pain and fatigue, it can also bring headaches, memory problems, sleeplessness, irritable bowels, morning stiffness and numbness or tingling in the arms and legs. The syndrome affects as many as 1 in 50 Americans, most of them women.

What causes FMS? Many people associate their FMS with a physically or emotionally stressful event, like an accident. Some connect it to repetitive injuries, or to an illness; people with autoimmune diseases are particularly likely to develop the syndrome. Some scientists suspect problems with how the brain and spinal cord process pain. Genes may also be involved.

People with FMS typically see a number of doctors before getting the diagnosis. There are no standard tests for the syndrome. Because many other conditions can cause pain and fatigue, a doctor must first rule out other potential causes. The diagnosis of FMS is based on

two criteria: a history of widespread pain lasting more than 3 months and the presence of specific pain “tender points” on the body.

FMS can last a long time. However, several medications may help to treat it. Over-the-counter or prescription painkillers may help. Antidepressants can elevate levels of certain brain chemicals to help with pain and fatigue. A class of medications called benzodiazepines can help relax muscles and improve sleep. Doctors may prescribe other drugs for specific FMS symptoms.

In a recent study supported by NIH, scientists found that the medication gabapentin, which is used for certain types of seizures, can be an effective treatment for the pain and other symptoms associated with FMS. Lyrica (pregabalin), which is structurally similar to gabapentin, was more recently approved by the U.S. Food and Drug Administration as the first drug to treat FMS. Lyrica reduces pain and improves daily functions for some patients with fibromyalgia.



Physical and occupational therapy may also help some people with FMS. Learning pain-management and coping techniques can help as well. Some FMS patients have success with complementary and alternative therapies, including massage, movement therapies, chiropractic treatments, acupuncture, and herbs and dietary supplements.

Researchers supported by NIH are continuing to make inroads into understanding FMS. The insights they are gaining will help them to develop potential medications and other interventions that may one day change the outlook for people with FMS. ■



Web Sites

- www.niams.nih.gov/hi/topics/fibromyalgia/ffibro.htm
- www.niams.nih.gov/hi/topics/fibromyalgia/fibrofs.htm



Wise Choices Feeling Better With Fibromyalgia

- **Get enough sleep**—Getting enough, and the right kind of, sleep can help ease pain and fatigue.
- **Exercise**—Research has repeatedly shown that regular exercise is one of the most effective treatments for FMS.
- **Make changes at work**—Some people with FMS cut down the number of hours they work, switch to a less demanding job or adapt a current job.
- **Eat well**—It's important to have a healthy, balanced diet. Not only will proper nutrition give you more energy and make you generally feel better, it will also help you avoid other health problems.

Health Capsules

Brain Imaging Reveals Joys of Giving

The old saying “It’s better to give than to receive” may be truer than you think. A new study suggests that pleasure-related areas in the brain get more active when people decide to donate money to charity. The findings may help explain why some people contribute to the public good, even at a personal cost.

Researchers gave 19 women an on-line account with \$100. The women were told they could keep whatever money remained at the end of the session. They then watched as a computer screen displayed a series of possible money transfers from

their accounts to a local food bank. Meanwhile, their brains were scanned with an imaging machine. The scans showed when specific brain regions were activated.

About half of the proposed transfers were voluntary—the women could decide whether to accept or reject the donation. Sometimes the transfers were required, similar to a tax. Occasionally, money was unexpectedly added or taken away from either the woman’s or the charity’s account.

The results showed that 3 very different situations—receiving

money, seeing money go to a good cause or deciding to donate money—all activated similar pleasure-related centers deep in the brain. The response was strongest when people volunteered to donate money. This might correspond to the “warm glow” some people get when they donate money to a good cause.

Although voluntary giving activated these pleasure-related brain centers, it didn’t create a financial windfall for the food bank. Participants rejected more than half of the voluntary transfers. Overall, the charity received 10% less money from voluntary donations than from the tax-like mandatory contributions. ■

Alcoholism Subtypes Identified

Why do some alcoholics benefit from medications or counseling while others don’t? That question has been a major challenge for scientists who study alcohol disorders. A new analysis of people with alcohol dependence has found 5 distinct subtypes of alcoholism.

NIH scientists studied nearly 1,500 people with alcohol dependence. They analyzed their family history of alcoholism, the age when alcohol use became a problem and other factors.

The largest alcoholism subtype, they found, includes about 31% of U.S. alcoholics. This group is made up of young adults who rarely seek help for their drinking. They have relatively low rates of other substance abuse or mental disorders and a low rate of family alcoholism.

The next largest subtype includes about 21% of U.S. alcoholics. More than half come from families with alcoholism. About half have an antisocial personality disorder. Most smoke cigarettes and marijuana. Many also have cocaine and opiate addictions. More than a third seek help for their drinking. The researchers also defined 3 other subtypes.

“Nearly 20% of alcoholics are highly functional and well-educated with good incomes,” says Dr. Howard B. Moss, a scientist with NIH’s National Institute on Alcohol Abuse and Alcoholism. “Our findings should help dispel the popular notion of the ‘typical alcoholic.’”

Understanding the subtypes of alcoholism will now help researchers to develop more effective prevention and treatment strategies. ■

Definition

Alcoholism

Drinking alcohol at a level that interferes with your physical and mental health and your responsibilities to friends, family and the workplace.

Web Sites

- www.niaaa.nih.gov/FAQs/General-English
- www.nlm.nih.gov/medlineplus/alcoholism.html



Featured Web Site Breath of Life

www.nlm.nih.gov/hmd/breath/breathhome.html

Feeling breathless is a hallmark of asthma. This disease affects about 15 million people in the U.S. Read the inspirational stories of sports heroes, politicians, doctors and others who have risen to the challenges of living with asthma. This site also outlines the history of asthma and scientific efforts to understand and treat the disease.



For more health information from NIH, visit <http://health.nih.gov>