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VA research on POSTTRAUMATIC STRESS DISORDER (PTSD)

VA research has led the way in developing effective psychotherapies for posttraumatic stress disorder (PTSD) and exploring other approaches such as medications, behavioral interventions, and therapeutic devices.

ABOUT PTSD

- PTSD can occur after a traumatic event like combat, assault, or a natural disaster. While stress is common after a trauma, people with PTSD often relive a traumatic event in their minds. They may also feel distant from friends and family and experience anger that does not go away over time, or may even get worse.
- PTSD can affect people who have experienced a wide range of life-threatening events. In Veterans, it is commonly associated with combat trauma. It has taken a significant toll on many Veterans who currently use VA health care.
- According to the National Center for PTSD, the prevalence of PTSD in Veterans who have served in Iraq or Afghanistan is about 11–20%. Military sexual trauma, which can happen to both men and women, can also lead to PTSD.
- People with PTSD can experience a number of distressing and persistent symptoms, including re-experiencing trauma through flashbacks and nightmares, emotional numbness, sleep problems, difficulties in relationships, sudden anger, and drug and alcohol misuse. Recently, reckless and self-destructive behavior has been added as a PTSD symptom.

VA RESEARCH ON PTSD: OVERVIEW

- VA is committed to funding research to better understand, prevent, and treat PTSD. VA also has a strong track record of moving PTSD research into clinical practice.
- VA researchers are working to better understand the underlying biology of PTSD, advance new treatments, and refine diagnostic approaches. Ongoing studies range from investigations of genetic or biochemical foundations of PTSD to evaluating new treatments and drugs.
- VA research aims to improve Veterans' quality of life by increasing the number and type of evidence-based treatments and identifying additional personalized approaches for treating PTSD. Current PTSD research includes studies of Veterans, their families, and couples. Veterans of all eras are included in these studies.
- VA's National Center for PTSD is the world's leading research and educational center of excellence on PTSD.
- VA's National PTSD Brain Bank is a brain tissue repository that supports research on the causes, progression, and treatment of PTSD.
- In 2013, VA and the Department of Defense launched the Consortium to

Alleviate PTSD with the aim of improving diagnosis and treatment of PTSD.

SELECTED MILESTONES AND MAJOR EVENTS

- 1989** – Created the [National Center for PTSD](#)
- 2007** – [Confirmed](#) the value of prolonged exposure therapy
- 2013** – Funded, along with the Department of Defense, two [consortia](#) to improve treatment for PTSD and mild traumatic brain injury
- 2014** – [Found](#) that Veterans who sought and received care soon after the end of their service had lower rates of PTSD than those who waited to get treatment
- 2014** – Established the VA [National PTSD Brain Bank](#)
- 2016** - Announced the [PTSD Psychopharmacology Initiative](#) to foster work on identifying, testing, and confirming the most effective PTSD medications for Veterans
- 2016** - [Learned](#) that Veterans with PTSD had different patterns of brain activity than Veterans with mild traumatic brain injury
- 2018** - [Found](#) that the drug prazosin did no better than placebo in treating PTSD-related nightmares, although subgroups

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of Veterans may benefit from the treatment

2019 - [Showed](#) the value of mantram therapy to reduce PTSD symptoms and insomnia in Veterans

RECENT STUDIES: SELECTED HIGHLIGHTS

• **Different PTSD symptoms affect quality of life in men and women**, found a VA San Diego study. Women Veterans with PTSD whose symptoms of depression were reduced were more likely to see improvements in their quality of life. For men, however, reducing symptoms of anger had a greater effect on improving the quality of their lives. ([Military Medicine](#), June 8, 2020)

• **Richard L. Roudebush VA Medical Center researchers identified hundreds of blood-based genetic markers for psychological stress**. The 10-year study highlighted 285 individual biomarkers associated with 269 genes. The findings could lead to improved, earlier diagnostics for PTSD and offer new leads for the development of drug or natural compound-based therapeutics. ([Molecular Psychiatry](#), May 2020)

• **Present-centered therapy reduces PTSD severity compared with no treatment**, found a National Center for PTSD review. PCT focuses on patients' current lives and how they can cope with PTSD symptoms. The review found that cognitive behavioral therapy is more effective at treating PTSD symptoms than PCT, but fewer patients drop out of PCT than from cognitive behavioral therapy. ([Cochrane Database of Systematic Reviews](#), Nov. 18, 2019)

• **Theta-burst transcranial magnetic stimulation is a promising new treatment for PTSD**, according to a study by Providence VA Medical Center researchers. In the therapy, magnetic pulses are applied to specific points on the skull to stimulate areas of the brain. Participants had improved social and occupational function and lower depression after treatment. ([American Journal of Psychiatry](#), Nov. 1, 2019)

• **Researchers with VA's Million Veteran Program identified eight separate regions in the human genome associated with re-experiencing traumatic memories**. Re-experiencing is the most distinctive symptom of PTSD. The results showed genetic overlap between PTSD and other conditions, such as schizophrenia

and hypertension. ([Nature Neuroscience](#), September 2019)

• **Mantram therapy may reduce hyperarousal**, according to a VA San Diego study. Hyperarousal is a common symptom of PTSD. Mantram therapy, a simple meditation technique, led to greater reductions in hyperarousal, compared with psychotherapy only. Veterans with reduced hyperarousal also had greater overall PTSD symptom reduction. ([European Journal of Psychotraumatology](#), Sept. 30, 2019)

• **Veterans with PTSD are twice as likely to die from suicide, accidental injury, and viral hepatitis** than other Americans, found a study led by White River VA Medical Center researchers. Veterans with PTSD were also more likely to die from diabetes and chronic liver disease, and were 5% more likely to die from any cause. The results suggest that Veterans with PTSD may engage in unhealthy or risky lifestyle behaviors that raise the risk of death. ([American Journal of Preventive Medicine](#), August 2019)

For more information on VA studies on PTSD and other key topics relating to Veterans' health, please visit www.research.va.gov/topics

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