

## VA Medical and Prosthetic Research Program

The mission of Veterans Affairs (VA) Research is fourfold:

- Improve veterans' health and well-being via basic, translational, clinical, health services, and rehabilitative research.
- Apply scientific knowledge to develop effective individualized care solutions for veterans.
- Attract, train, and retain the highest-caliber investigators, and nurture their development as leaders in their fields.
- Assure a culture of professionalism, collaboration, accountability, and the highest regard for research volunteers' safety and privacy.

## Examples of Neuroscience in VA Medical Research

Traumatic Brain Injury (TBI)

- The Defense and Veterans Brain Injury Center reported nearly 414,000 TBIs among U.S. service members worldwide between 2000 and 2019.<sup>1</sup>
- Neuroscience researchers are developing improved methods to assess the effectiveness of treatments.
- VA's TBI Model System, a collaboration with the National Institute on Disability, Independent Living, and Rehabilitation Research, examines the recovery course and outcomes of veterans and active-duty service members with TBI following rehabilitation.

Substance Use Disorders

- About 9 percent of Americans over the age of 18 have a non-tobacco substance use disorder. Among in-service members and veterans, substance use disorders co-occur and complicate additional health conditions.<sup>2</sup>
- VA supports research studying prevention, screening, and treatment of substance use disorders.

Post-traumatic Stress Disorder (PTSD)

- According to the National Center for PTSD the prevalence of PTSD in Veterans who have served in Iraq or Afghanistan is about 11–20%.<sup>3</sup>
- In 2013, VA and the Department of Defense announced the two departments were committing more than \$100 million to fund two new consortia specifically aimed at improving diagnosis and treatment of PTSD.
- The VA has developed evidence-based treatments for PTSD, ranging from cognitive processing therapy to prolonged exposure therapy.
- In 2016, neuroscience researchers found there are effective treatments for veterans with both PTSD and TBI.

## Recent Advancements

### VA Research Finds New Drug to Regrow Brain Tissue After Injury

VA researchers have developed a drug that helps to regrow brain tissue, has implications for conditions like Alzheimer's disease and TBIs where brain tissue is damaged. The discovery was first found in mice and is on track to move to human trials.<sup>4</sup>

### VA Research Finds New Non-Invasive Treatment for Concussion Symptoms

VA researchers have developed a new non-invasive treatment that can help to relieve chronic headaches, sleep problems, and attention disorders after a concussion. Study participants who received the treatment had reduced concussion symptoms and improvements in PTSD and depression symptoms.<sup>5</sup>

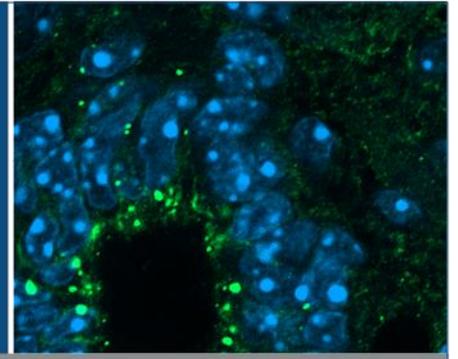
### Eye-Tracking Device for Early Parkinson's Detection

Researchers developed an eye motion test that helps detect and diagnose Parkinson's disease at an early stage, allowing treatment to begin earlier than it may otherwise.<sup>6</sup>



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# VA Biomedical Research



## Sources

<sup>1</sup> <https://www.research.va.gov/topics/tbi.cfm>

<sup>2</sup> <https://www.research.va.gov/topics/sud.cfm>

<sup>3</sup> <https://www.research.va.gov/topics/ptsd.cfm>

<sup>4</sup> <https://www.research.va.gov/currents/0625-VA-Researchers-Uncover-New-Hope-for-Traumatic-Brain-Injury-Alzheimers-Disease.cfm>

<sup>5</sup> <https://www.research.va.gov/currents/0425-Individualized-neurofeedback-relieves-concussion-symptoms.cfm>

<sup>6</sup> [https://www.research.va.gov/research\\_in\\_action/Eye-tracking-device-for-early-Parkinsons-detection.cfm](https://www.research.va.gov/research_in_action/Eye-tracking-device-for-early-Parkinsons-detection.cfm)

*The Society for Neuroscience (SfN) is a nonprofit membership organization of around 30,000 scientists and physicians who study the brain and nervous system. Visit [SfN.org](http://SfN.org) or email [advocacy@sfn.org](mailto:advocacy@sfn.org) to learn more.*