

Blood pressure drug could prevent posttraumatic headaches

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A study led by VA Puget Sound Health Care System researchers has shown that prazosin, a drug used to treat high blood pressure, can prevent posttraumatic headaches.

Senior study author Dr. Murray Raskind, director of the VA Northwest Mental Illness Research, Education and Clinical Center in Seattle, Washington, explained that few treatment options exist for this type of [headache](#).

"Persistent posttraumatic headaches are the most common long-term consequence of mild traumatic brain injuries (concussions) in Veterans and active-duty service members, causing substantial distress and disability at home and work. Although these headaches usually resemble [migraine headaches](#) symptomatically, they often fail to respond to the prevention treatments useful for migraines," said Raskind.

The FDA approved prazosin to treat hypertension in 1976. It has been widely used "off-label" to treat conditions such as PTSD-associated nightmares and enlarged prostate. An earlier study by members of the research group suggested that prazosin could reduce the frequency and severity of headaches caused by traumatic brain injury (TBI).

To test this effect, the researchers conducted a [pilot study](#) with 48 Veterans and service members with headaches caused by mild TBI, also known as a concussion. Participants took gradually increasing doses of prazosin for five weeks before receiving the maximum dose for 12 weeks. The study showed that the drug was well-tolerated, and researchers reported that morning drowsiness was the only adverse effect.

Before the trial began, study participants had an average of 18 headache days each month. By the end of the 12-week period, those taking prazosin only had headaches for an average of six days a month. Participants receiving a placebo reported some reduction in headaches, but still had headaches about 12 days a month. Significantly more participants in the prazosin group had at least 50% fewer headaches during the 12 weeks of taking a full dose of medication.

Participants taking prazosin also saw significant decreases in how much headaches impacted their quality of life. By the end of the trial, those taking prazosin reported that headaches had "some impact" on their daily ability to function, while participants given a placebo continued to report "severe impact" of headaches.

Larger [clinical trials](#) are needed to confirm the extent of these promising results, according to the researchers, but these initial findings offer a potential relief for a common ailment faced by many Veterans.

"This study is the only clinical trial of an oral medication to demonstrate efficacy for posttraumatic headache. Because prazosin is widely used across VA and the Department of Defense to treat PTSD trauma nightmares and sleep disruption, many VA and DOD prescribers are familiar with prescribing this generically available, inexpensive medication," said Raskind. "Prazosin now offers an evidence-based approach to alleviate the suffering of Veterans and service members who have struggled for years with frequent posttraumatic headaches."

TBI has been called the "signature injury" of the recent wars in Iraq and Afghanistan. Since 2000, more than 460,000 service members have sustained a TBI, most of which were mild TBIs. Headaches are common following a mild TBI, and they often become chronic and cause substantial disability and distress.

The study results appeared in the June 14, 2023, issue of *Headache, the Journal of Head and Face Pain*.

More information: Cindy L. Mayer et al, Randomized controlled pilot trial of prazosin for prophylaxis of posttraumatic headaches in active-duty service members and veterans, *Headache: The Journal of Head and Face Pain* (2023). [DOI: 10.1111/head.14529](https://doi.org/10.1111/head.14529)

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