

Military service's hidden health toll: Servicewomen and their families endure increased chronic pain, finds study

July 5 2024



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A new study led by investigators from Brigham and Women's Hospital reveals that military women and female family members face

significantly higher risks of chronic pain

Active-duty servicewomen who served during periods of heightened combat deployments (2006–2013) face a significantly heightened risk of [chronic pain](#) compared to those serving at other times, according to a new study from researchers at Brigham and Women's Hospital, a founding member of the Mass General Brigham health care system.

The study also found that female dependents of military personnel serving in 2006–2013 are more likely to experience chronic pain and those of lower socioeconomic status and mental illness face an even higher risk. Results are published in [JAMA Network Open](#).

"We aimed to investigate the impact of frequent exposure to intense combat deployments on women in the military and their civilian spouses," said first author Andrew Schoenfeld, MD, MSc, an [orthopedic surgeon](#) in the Department of Orthopedic Surgery and Center for Surgery and Public Health at BWH.

"My previous military service provided insight into the stress of repeated deployments on service members and their families. However, I was surprised by the magnitude of the effect we observed here, particularly among female civilian spouses. This underscores an overlooked aspect of deployment schedules that the Military Health System must recognize."

Chronic pain—a [distressing condition](#) that persists for months to years—can significantly reduce one's quality of life. According to the Centers for Disease Control and Prevention (CDC), as of 2021, [20.9% of U.S. adults experienced chronic pain](#). This condition is also costly, both to individuals and the health care system, due to ongoing treatment needs and immense productivity losses.

Researchers conducted a [cohort study](#) using data from the Military

Health System Data Repository, focusing on active-duty servicewomen and female dependents of active-duty servicemembers across all branches of the Department of Defense (Army, Air Force, Navy and Marine Corps). The study included health records of 3,473,401 individuals ages 18 to 64, spanning 2006 to 2020.

Among these records, 324,499 individuals (9.3%) had a diagnosis of chronic pain. The study divided the cohort into two groups: one from 2006 to 2013, characterized by more intense combat exposure, and another from 2014 to 2020 with significantly less combat exposure. Individuals with pre-existing chronic pain diagnoses before [military service](#) were excluded.

Comparing these cohorts revealed that those serving from 2006 to 2013 had significantly higher rates of chronic pain (14.8% among active duty and 11.3% among dependents) compared to those serving from 2014 to 2020 (7.1% among active duty and 3.7% among dependents).

Specifically, servicewomen from 2006 to 2013 had a 53% higher likelihood of chronic pain than those from 2014 to 2020.

The study also found associations between chronic pain, and factors like mental health and socioeconomic status, among those serving in the Army or Marine Corps.

"Populations from disadvantaged economic backgrounds and those with preexisting [mental health](#) conditions often encounter more barriers to accessing medical and behavioral health services, which can worsen and prolong their suffering," noted Schoenfeld.

One limitation of these findings is that they are based on claims data, which prevented investigators from directly interviewing patients to fully understand the circumstances and symptoms that culminated in their

chronic pain diagnoses.

Looking ahead, Schoenfeld and colleagues aim to evaluate how sustained use of prescription opioids differs among active-duty service women and civilian dependents living with chronic pain. They further hope to conduct a prospective observational study to better understand the long-term ramifications of military deployments on health.

More information: Development of Chronic Pain Conditions Among Women in the Military Health System, *JAMA Network Open* (2024).
[DOI: 10.1001/jamanetworkopen.2024.20393](https://doi.org/10.1001/jamanetworkopen.2024.20393)

Provided by Brigham and Women's Hospital

Citation: Military service's hidden health toll: Servicewomen and their families endure increased chronic pain, finds study (2024, July 5) retrieved 5 July 2024 from
<https://medicalxpress.com/news/2024-07-military-hidden-health-toll-servicewomen.html>

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