

Traumatic brain injury in veterans may increase risk of dementia, study finds

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Older veterans who have experienced a traumatic brain injury (TBI) are 60 percent more likely to later develop dementia than veterans without TBI, according to a study published in the June 25, 2014, online issue of *Neurology*, the medical journal of the American Academy of Neurology.

The study also found that [veterans](#) with a history of TBI developed dementia about two years earlier than those without TBI who had developed dementia.

"These findings suggest that a history of TBI contributes risk for dementia in later life in veterans. If we assume that this relationship is causal, it seems likely that the same increased risk probably occurs with TBI in the civilian population as well," said study author Deborah E. Barnes, PhD, MPH, of the University of California, San Francisco and the San Francisco Veterans Affairs Medical Center and a member of the American Academy of Neurology.

The study involved 188,784 veterans with an average age of 68 at the start of the study. All were free of dementia at the start of the study and had at least one visit to a VA health care facility at the start of the study and again an average of seven years later.

A total of 1,229 of the veterans had a TBI diagnosis. During the follow-up period, 196 veterans with TBI, or 16 percent, developed dementia, compared to 18,255, or 10 percent of those without TBI. After adjusting for other factors that could affect the risk of dementia, such as diabetes, [high blood pressure](#), depression and alcohol abuse, researchers determined that veterans with TBI were 60 percent more likely to develop dementia than those without TBI.

On average, veterans with TBI developed dementia two years earlier than those without TBI, or at age 78.5 compared to 80.7. Also, those who

did not develop dementia died 2.3 years earlier if they had a TBI versus no TBI (77.0 years versus 79.3 years). The researchers also found that the risk of dementia was higher in veterans with TBI who also had depression, [post-traumatic stress disorder](#) or cerebrovascular disease than in those with either TBI or these other conditions alone.

"This study convincingly shows that mild trauma has a role in increasing the risk of [dementia](#) and sheds light on the more complex relationship between medical and psychiatric diseases with TBI in the development of the future risk of dementias. Neuroscientists must take a careful and comprehensive approach and avoid oversimplified claims of causality," said Rodolfo Savica, MD, MSc, of the University of Utah School of Medicine in Salt Lake City, and a member of the American Academy of Neurology, who wrote an editorial accompanying the study.

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Provided by American Academy of Neurology

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