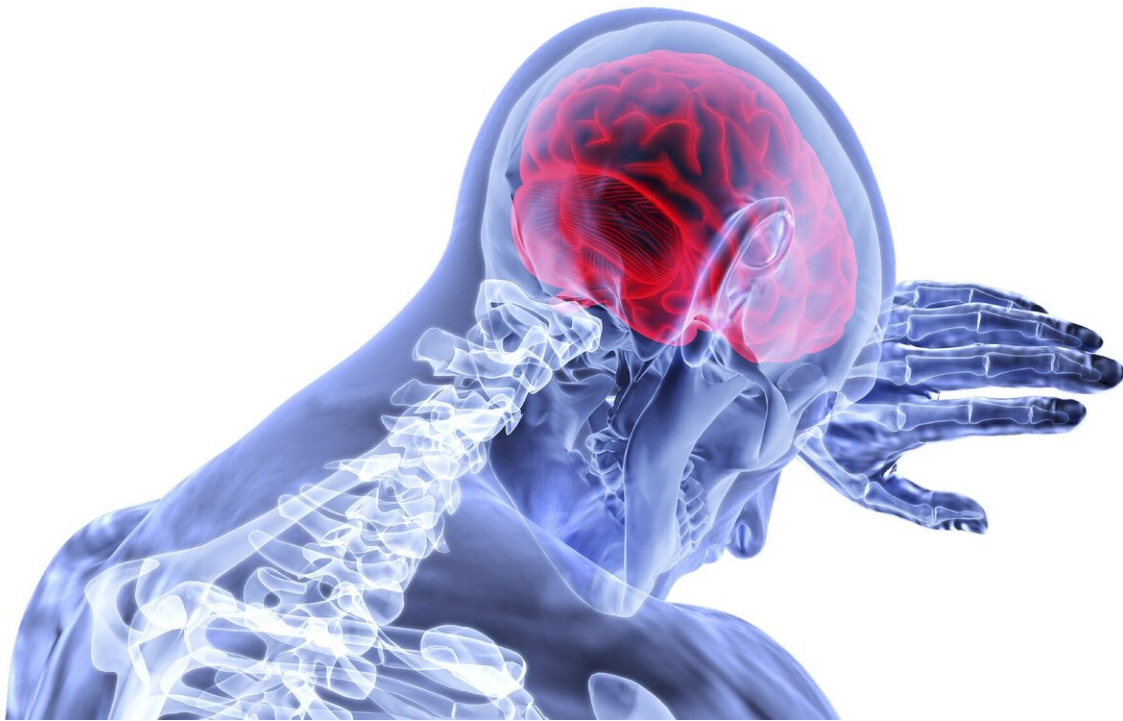


Stroke risk increases in individuals with multiple head injuries

June 4 2024



Credit: CC0 Public Domain

The rate of stroke in individuals with no history of prior stroke was 34% higher in individuals who experienced at least one head injury than in

their peers with no head injury. The rate is even higher in those who had multiple head injuries, according to new research from the Perelman School of Medicine [published](#) recently in *Stroke*.

"Head injuries increase the risk of stroke in individuals who may not have had one otherwise," said the study's first author Holly C. Elser, MD, Ph.D., a resident in the department of Neurology. "This research adds to the growing list of conditions associated with head injury, and underscores the importance of preventing them through wearing bike helmets and seatbelts in order to minimize the long-term health risks."

While it is well-understood that TBI can result in conditions in the short-term, such as memory and learning difficulties, mental health disorders, and headache, the long-term impacts of head injury are still emerging. Recent research has shown associations between head injury and disability, late-onset epilepsy, dementia, and death.

As part of the Atherosclerosis Risk in Communities Study, this longitudinal analysis evaluated 30 years of data from over 13,000 community-dwelling individuals (those not hospitalized or living in nursing home facilities) to determine whether head injury has an impact on rates of stroke caused by a blood clot in the brain, called an [ischemic stroke](#). Individuals who had a stroke prior to a head injury were excluded from the data set. Head injuries were identified either through International Classification of Diseases codes, or self-reported by individuals through interviews. The head injuries ranged from mild concussion to skull fracture and other severe head trauma.

Although individuals with multiple head injuries in the study had even higher rates of ischemic stroke, researchers did not find that the severity of head injury impacted the rate of stroke later in life. The authors also

found that [head injuries](#) were more strongly associated with more [severe stroke](#).

"This research also illustrates the importance of early interventions to manage the risk of stroke specifically in individuals who previously suffered a head injury and don't have a history of stroke," said Elser.

"For example, clinicians should counsel these individuals on [healthy diet](#) and exercise practices, which are proven to reduce stroke risk, as well as manage other [risk factors](#) with medication, including [high blood pressure](#) and high blood cholesterol."

More information: Holly Elser et al, Head Injury and Risk of Incident Ischemic Stroke in Community-Dwelling Adults, *Stroke* (2024). [DOI: 10.1161/STROKEAHA.123.046443](#)

Provided by Perelman School of Medicine at the University of Pennsylvania

Citation: Stroke risk increases in individuals with multiple head injuries (2024, June 4) retrieved 23 June 2024 from <https://medicalxpress.com/news/2024-06-individuals-multiple-injuries.html>

<p>This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.</p>
--