

# Traumatic brain injury may up risk for developing comorbidities

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Traumatic brain injury (TBI) of any severity is associated with increased

risk of chronic cardiovascular, endocrine, and neurologic comorbidities, according to a study published online April 28 in *JAMA Network Open*.

Saef Izzy, M.D., from Brigham and Women's Hospital in Boston, and colleagues conducted a longitudinal cohort study using hospital-based patient registry data to examine the incidence of cardiovascular, endocrine, neurological, and psychiatric comorbidities in patients who experienced mild TBI (mTBI) or moderate-to-severe TBI (msTBI) from 2000 to 2015. Patients were matched to an unexposed group without [head injuries](#). The analyses included 4,351 patients with mTBI, 4,351 with msTBI, and 4,351 unexposed individuals.

The researchers found that compared with unexposed individuals, those with mTBI and msTBI had significantly higher risks of cardiovascular, [endocrine](#), neurologic, and [psychiatric disorders](#). In particular, in both mTBI and msTBI groups, hypertension risk was increased (hazard ratios, 2.5 and 2.4, respectively); the risk of diabetes was also increased in both groups (hazard ratios, 1.9 and 1.9, respectively), as was the risk of ischemic stroke or transient ischemic attack (hazard ratios, 2.2 and 3.6, respectively). In the TBI subgroups, all comorbidities emerged within a median of 3.49 years after injury. The risk of mortality was increased for individuals with msTBI versus unexposed individuals (9.9 versus 5.7 percent); increased mortality was seen in association with postinjury hypertension, [coronary artery disease](#), and adrenal insufficiency (hazard ratios, 1.3, 2.2, and 6.2, respectively).

"These findings suggest a need for proactive screening of chronic systemic diseases after brain injury of any severity," the authors write.

Several authors disclosed financial ties to the pharmaceutical industry.

**More information:** Saef Izzy et al, Association of Traumatic Brain Injury With the Risk of Developing Chronic Cardiovascular, Endocrine,

Neurological, and Psychiatric Disorders, *JAMA Network Open* (2022).  
[DOI: 10.1001/jamanetworkopen.2022.9478](https://doi.org/10.1001/jamanetworkopen.2022.9478)

Vijay Krishnamoorthy et al, Traumatic Brain Injury and Chronic Implications Beyond the Brain, *JAMA Network Open* (2022). [DOI: 10.1001/jamanetworkopen.2022.9486](https://doi.org/10.1001/jamanetworkopen.2022.9486)

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