

Electric bike injuries, hospitalizations increased significantly in recent years

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The incidence of electric bicycle (e-bicycle)-related injuries, particularly head injuries, has surged in the United States since 2017, according to a research letter [published](#) online Feb. 21 in *JAMA Surgery*.

Adrian M. Fernandez, M.D., from the University of California in San

Francisco, and colleagues used data from the National Electronic Injury Surveillance System to estimate the number of patients with injuries presenting to U.S. emergency departments (2017 to 2022).

The researchers identified 45,586 e-bicycle injuries that occurred in the United States during the study period, leading to an estimated 5,462 hospitalizations. Over the five years, there was a statistically significant 30-fold rise in e-bicycle injuries (>99 percent annually) and a statistically significant 43-fold increase in hospitalizations (>108 percent annually). There was an increase in injuries in children (0 to 13 percent of total injuries), while there was a decrease in injuries among [young adults](#) aged 18 to 34 years (63 to 30 percent of total injuries). The incidence of head trauma from e-bicycle accidents was approximately 49 times higher in 2022 than in 2017, with a [growth rate](#) that outpaced overall e-bicycle injuries. Each year, there were 5.6 percent decreased odds of helmet use. Less than half of injured e-bicyclists wore helmets (44 percent). Head injury odds were 1.9 times greater in nonhelmeted e-bicyclists versus helmeted.

"The increasing proportion of [head injuries](#) in our study warrants further examination, as traumatic brain injuries are more severe in e-bicyclists than in traditional bicyclists," the authors write.

More information: Adrian M. Fernandez et al, Electric Bicycle Injuries and Hospitalizations, *JAMA Surgery* (2024). [DOI: 10.1001/jamasurg.2023.7860](#)

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