E-bike injuries found to result in more internal injuries than for scooters or regular bikes

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A team of researchers from the NYU School of Medicine and Bellevue Hospital Center has found that people involved in e-bike accidents are

more likely to have internal injuries than are those riding electric scooters or pedal-powered bicycles. In their paper published in the journal *Injury Prevention*, the group describes their study of emergency room data and what it showed about powered two-wheeled transportation devices.

As the planet heats up, people around the world continue to look for ways to decrease their environmental footprint. One way involves using electric-powered, two-wheeled transportation devices like e-bikes and e-scooters instead of cars. In this new effort, the researchers sought to better understand the risks people are taking when they switch to "cleaner" modes of transportation.

The work involved running searches on the U.S. Consumer Product Safety Commission's National Electronic Injury Surveillance System (NEISS), which documents emergency room visit information involving both types of vehicles, as well as pedal-powered bicycles.

The researchers report that pedal-powered bicycle riding results in far more trips to the emergency room than either of the battery-powered options—this is because pedal-powered bicycle riders still far outnumber those that ride electricity-powered two-wheeled vehicles. Over the years 2000 to 2017, there were over 9 million recorded pedal-power-related injuries in the NEISS. Over the same time period, there were 130,000 reported injuries for scooters and 3,000 for e-bikes.

The researchers also report that they found a difference in injury types for the three modes of transportation. They found that people riding e-bikes, for example, were more likely to suffer internal injuries than people riding the other two options—mostly because they can move roughly twice as fast. They also found that people riding scooters were more likely to experience accidents that resulted in concussions.

The researchers note that cities and towns are still in the process of making laws to govern such vehicles (New York Governor Cuomo recently vetoed a bill that would make riding such vehicles in the city legal) and making changes to infrastructure, such as building bike paths, to make their use safer. They note that the number of pedestrians taken to the emergency room after being struck by such vehicles has also risen as the number of electric-powered two-wheeled vehicles rises.

More information: Charles J DiMaggio et al. Injuries associated with electric-powered bikes and scooters: analysis of US consumer product data, *Injury Prevention* (2019). DOI: 10.1136/injuryprev-2019-043418