

Total solar eclipse in 2017 linked to brief rise in traffic accidents

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Ahead of a total solar eclipse arriving April 8, new research finds there was a temporary rise in U.S. traffic accidents around the time of a solar eclipse back in 2017.



The area in the United States covered by the total eclipse seven years ago was relatively small (about 70 miles wide), but it was still tied to a 31% national rise in fatal traffic accidents.

"In absolute terms, this averaged to 1 extra crash-involved person every 25 minutes and 1 extra crash fatality every 95 minutes," said a Canadian team led by Dr. Donald Redelmeier of Sunnybrook Health Sciences Centre, in Toronto.

His team suspects the rise in accidents didn't owe to any temporary change in visibility due to the eclipse. Instead, it more likely stemmed from a surge in people traveling to view the rare phenomenon.

In 2017, the total eclipse had an estimated 20 million people traveling to another city to view it, the Toronto team said.

More traffic danger might loom on April 8, however, since this time the eclipse "is within driving range for more than 200 million individuals within the US," the study authors said.

The new study relied on U.S. data from the National Highway Traffic Safety Administration Fatality Analysis Reporting System.

Redelmeier's team looked at the three days before, during and immediately after the Aug. 17, 2017, total eclipse, and compared road accident rates during that period to three-day periods during the week before and the week after the eclipse.

Fatal crash rates rose nationally during the three days around the eclipse: 10.3 deaths per hour versus 7.9 per hour during the weeks before and after, the research showed.

Increased traffic density seemed to be key, since the rise in deaths "is



similar in magnitude to the increased <u>traffic</u> risks observed around Thanksgiving, Memorial Day, or the July 4th weekend," the researchers noted.

They don't rule out other factors, however, including "travel on unfamiliar routes, speeding to arrive on time, <u>driver distraction</u> by a rare celestial event, drug- or alcohol-induced impairment from eclipse-related celebrations, and eclipse viewing from unsafe roadside locations."

Redelmeier and colleagues say driver precautions in and around April 8 could save lives.

Standard safety advice applies: Don't speed, wear your seat belt, don't tailgate and do not drive drunk or stoned, the researchers advised.

The study was published March 25 in *JAMA Internal Medicine*.

More information: Donald A. Redelmeier et al, Fatal Traffic Risks With a Total Solar Eclipse in the US, *JAMA Internal Medicine* (2024). DOI: 10.1001/jamainternmed.2023.5234

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