



DEPARTMENT OF
HEALTH AND HUMAN SERVICES

Promoting and protecting health, well-being, self-sufficiency, and safety of all in Marin County.

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PUBLIC HEALTH ADVISORY

E-bike Safety in Marin County

Background

In Marin County, the use of electric bicycles (e-bikes) for active transportation and recreation is increasing. This trend has been accompanied by an increase in e-bike related accidents. Local data highlights the need to improve e-bike safety through education and training, especially for young riders and their parents.

The purpose of this advisory is to a) describe local patterns of e-bike related injuries; and b) provide Marin County clinicians with key messages to share with patients and families to prevent e-bike related injuries; and c) introduce a new local data dashboard that prospectively tracks and displays bicycle accidents county-wide.

Marin County E-Bike Accident Data

From 2019 to 2022, the number of 911 calls related to bicycle accidents in Marin rose 2.2 times among youth from ages 10 to 19 years old. A more modest upward trend was seen among other age groups.

On October 10, 2023, Marin County Emergency Medical Services (EMS) began distinguishing e-bike related accidents from those involving conventional bikes in 911 response reports. The first month of data collection, from October 10 to November 10, 2023, revealed the following concerning trends:

- 9 out of 41 (22%) 911 responses to bicycle accidents in Marin County were related to e-bikes.
- 5 out of 7 (71%) 911 responses for bike accidents among youth ages 10 to 19 years old were e-bike related, compared to 4 out of 34 (12%) among residents age 20 and older. All youth related e-bike accidents were separate incidents that occurred on city and town streets.
- The rate of e-bike accidents among residents ages 10 to 19 years old is 9 times higher than that for residents over 20 years old.

To monitor these trends ongoing, Marin County Public Health has launched a data dashboard describing patterns of bicycle accidents (e-bike and conventional bikes) using county-wide Emergency Medical Services 911 response data. Visit [Bicycle Safety | Marin Health and Human Services \(marinhhs.org\)](http://Bicycle Safety | Marin Health and Human Services (marinhhs.org)). The dashboard will be updated weekly.

Actions Requested of Providers

- 1) Counsel patients and families about the following elements of e-bike safety:

- a. **Helmet Use:** Serious head injuries have occurred in riders who were not wearing a helmet. With e-bikes, helmets should be seen as a non-negotiable safety measure, regardless of the distance or familiarity of the route. Helmets are legally required for riders aged 18 and younger.
 - b. **Passenger Safety:** Some accidents involving e-bikes are caused by improper passenger positioning, especially in young riders. Passengers should only use seats designed for passengers and wear helmets.
 - c. **Rules of the Road:** Serious e-bike accidents in Marin have involved collisions with motor vehicles and pedestrians. Emphasize the importance of following traffic laws and rules of the road.
 - d. **Class 1 (Pedal Assist) Bikes:** Class 1 e-bikes, which aid only when the rider is pedaling, are generally safer than Class 2 or Class 3 bikes, which are heavier and can be propelled with a throttle. This is important for families considering e-bike purchases as the holidays approach.
- 2) When evaluating patients injured in bicycle accidents, recognize e-bike riders and passengers may sustain injuries similar to moped or motorcycle injuries due to increased vehicle speed and weight.
 - 3) Advise patients and families to complete the [CHP Electric Bicycle Safety and Training](#) program before e-bike use.
 - 4) Monitor local trends in e-bike accidents at [Bicycle Safety | Marin Health and Human Services \(marinhhs.org\)](#)

Resources

- Marin Safe Routes to Schools: [E-Bikes Are Electrifying the Future! - What Parents Should Know](#)
- Marin County Bicycle Coalition: [Teen E-Bike Smart Classes](#)
- California DMV: [Two-Wheeled Vehicle Operations](#)
- AB 1946 required the California Highway Patrol (CHP) to develop a [statewide e-bike safety and training program](#)
- California Highway Patrol: [Vulnerable Road Users](#)