



## John Muir Health Trauma Center

### Electronic Bicycle and Scooter Safety

As the Trauma Center for Contra Costa County and parts of Solano County for nearly 40 years, rapid diagnosis and treatment of traumatic injuries is only part of what our team provides to the community. We are committed to injury prevention by providing information to help people of all ages make smarter and safer decisions.

Electric bicycles (e-bikes) and e-scooters are increasingly popular modes of transportation and recreation, especially in the Bay Area, but their popularity is leading to serious and sometimes fatal injuries. **Over the past year, our trauma team has treated double the number of injuries to e-bike and e-scooter riders, as well as pedestrians hit by them, compared to the previous year. This is an alarming trend.**

The types of neurological and orthopedic injuries sustained are much closer to those often associated with motorcycle accidents than to those on non-motorized bicycles. Some e-bikes can travel up to 28 miles per hour and even faster with simple modifications that make it easy to exceed the manufacturer's speed restrictions. With faster speeds comes more severe collisions and the likelihood of serious or fatal injuries.

The most prominent age groups suffering these injuries are seniors and teenagers, primarily teenage boys. What John Muir Health's Trauma Center is seeing mirrors trends from around the country. According to the American College of Surgeons:

- More than 20,000 people are injured while riding e-bikes annually with approximately 3,000 requiring hospitalization, and this is likely underreported.
- The rate of e-bike injuries is increasing annually.
- Head injuries occur most frequently, and only a third of injured patients were wearing helmets.

### What Everyone Should Know

Everyone who currently rides or has a family member who rides an e-bike or e-scooter should be aware of the risks and how to safely operate one. This includes:

- Knowing the different classes of e-bikes (1-3) and the safety requirements associated with each class. By law, children under 16 may not operate a Class 3 e-bike.
- Knowing the rules of the road for e-bikes, regular bikes, e-scooters, cars and motorcycles, including where bikes and scooters can be ridden. Rules may differ depending on the city and county.

- Wearing a proper helmet. The helmet must be fitted and worn properly and should reflect the class of e-bike being ridden. Remember, e-bike head injuries are much closer to those seen in motorcycle accidents.
- Parents should know what kind of e-bike or e-scooter they are buying for their child and make clear that the speed of the bike or scooter should not be modified. Parents should also review e-bike and e-scooter safety along with local laws with their child.
- The American Academy of Pediatrics advises against children under 16 operating or riding on e-bikes or e-scooters.

### **Safety Resources**

There are several resources available to learn about the right type of e-bike for you or your family member. They all reinforce the importance of helmets and other safety equipment, and how to operate an e-bike safely. These include:

- Electric Bike Safety and Training Course (developed by the California Highway Patrol) [rise.articulate.com/share/yB3Hip8AYzOGdY0dgnd42mQ3k0c6Jza1#](https://rise.articulate.com/share/yB3Hip8AYzOGdY0dgnd42mQ3k0c6Jza1#/)
- California's Electric Bicycle Law - [511contracosta.org/wp-content/uploads/2021/11/ebike\\_laws.pdf](https://511contracosta.org/wp-content/uploads/2021/11/ebike_laws.pdf)
- Walnut Creek Police Department Safety Tips and Rules of the Road - [www.walnutcreekpdca.gov/i-want-to/stay-safe/bicycle-safety](https://www.walnutcreekpdca.gov/i-want-to/stay-safe/bicycle-safety)

To avoid traumatic injury, young people in our community need help developing safe habits and learning how to make good decisions. Operating an e-bike or e-scooter safely is no different than knowing how to safely operate any other motorized vehicle. We want to see people riding safely and responsibly, not showing up in our emergency department's trauma room.