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Energized risk of e-bikes:

Keeping your property and patrons safe

Year after year, electric powered bicycles (e-bikes) are breaking record sales. As gas prices climb, many people are turning to e-bikes as an economical form of transportation. But e-bikes also create new challenges when it comes to liability and risk.

Data shows that e-bikes are three times more likely to be involved in an accident involving a pedestrian than scooters and pedal bikes[1]. Injuries from e-bikes are more severe due to their weight and speed. E-bike manufacturers are making efforts to provide safety guidance, and states are looking closely at the risks these bikes pose to society. Some of the most common causes of e-bike accidents include:

- Applying too much throttle at the start — such circumstances are the most prevalent causes of e-bike-related accidents.
- Not obeying traffic rules — some riders may be utterly unaware of how to treat their vehicles on the road.
- License and registration regulations — e-bike operators do not have to own a driver's license or registration.
- Helmet requirements — e-cyclists are not required to use a helmet when operating an e-bike in most states.
- No road access restrictions — e-bikes may be used on any path or way that is open to bicycle travel, such as roads, bike lanes, and sidewalks.
- Circumstances beyond control — defective products may cause e-bike accidents. There are situations when the e-bike's motor doesn't stop, the brakes jam, the front fork fails, or the battery overheats and catches fire.[2]

Property losses from e-bikes and other battery-powered devices, such as scooters and hoverboards, are growing due to the battery overheating and catching the device on fire. In October 2022, the Consumer Product Safety Commission issued recalls of e-bikes due to the fire hazard of the battery. In Manhattan, a fire broke out at a housing complex because a tenant was repairing e-bikes. This resulted in significant damage and placed hundreds of people at risk. At the close of 2022, there were over 200 fires and six deaths reported in New York City alone related to e-bikes[3].

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Additional concerns are being raised regarding the insurability of e-bikes. They are typically not covered by homeowners insurance policies since they are normally considered motorized vehicles (self-propelled). Also, they typically are not covered by auto insurance policies because vehicles with two wheels are usually excluded on auto insurance policies. Umbrella insurance coverage may apply for e-bikes if the owner carries it. Stand-alone insurance coverage is very limited at this time. There are only a few insurance providers on the market today who offer insurance policies for e-bikes. Furthermore, liability insurance coverage is not mandatory when these bikes are purchased. Generally speaking, e-bikes are rarely insured.

Manufacturers and most states ban the purchase and use of e-bikes by anyone under under age 16. Many states are implementing laws to address the ownership and usage of e-bikes. At the time of this writing, 35 states impose a three-tier classification system for defining e-bikes:

- **Class one:** A pedal-assisted bike that can travel up to 20 mph. Speed over 20 mph is pedal power only.
- **Class two:** An e-bike that runs on a motor generating speed and can travel up to 20 mph without pedaling.
- **Class three:** A pedal-assisted bike that goes up to 28 mph.

Any motor on a bicycle exceeding 750 watts does not fall under the category of e-bikes and would require a license, tag, and insurance. All e-bikes built starting January 1, 2021, must have a label stating the bike's classification level, motor power level, and top speed. Any e-bike's modifications must be reflected within that label.[4]

With these risks in mind, it is important to address the safety of your property and your patrons. Here are some recommendations that may minimize losses.

- Regulate the use of e-bikes on your property through signage and campus policies.
- Restrict e-bikes from pedestrian paths.
- Do not allow e-bikes to be stored inside buildings or in confined spaces.
- Do not allow motorized products containing lithium-ion batteries to be charged inside your buildings.
- Never allow these products to be repaired or modified on your property.

In the future, it may be prudent for states to treat e-bikes like motorcycles by following the same operating guidelines, requiring registration and proof of insurance.

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If e-bikes are part of the sphere of your risk management, consider speaking with the Munich Re Specialty Insurance Loss Control team for assistance in managing your risk.

Contact us

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