



# YALE UNIVERSITY



## OFFICE OF THE FIRE MARSHAL

### Smart Safety Tips for Devices with Lithium-Ion Batteries

*A growing cause of fires today are from lithium-ion batteries*

Lithium-ion batteries supply power to many kinds of devices including smart phones, laptops, tablets, scooters, e-bikes, e-cigarettes, smoke alarms, toys, and even cars. Lithium-ion batteries store large amounts of energy and can pose a threat if not treated properly. Like any product, a small number of these batteries may be defective. We want you to take care when using them, because in rare cases, they can overheat, catch fire or explode.

#### Safety Tips When Using Lithium-Ion Batteries:

- When purchasing devices, be sure that the equipment has the Underwriters Laboratories Mark. The UL mark shows that the product has been safety-tested. 
- Select "personal e-mobility devices", such as scooters and hoverboards needs to meet UL2272 requirements. <https://www.ul.com/insights/ul-2272-and-the-safety-of-personal-e-mobility-devices>
- ALWAYS follow the manufacturer's instructions.
- Place batteries in the device the correct way.
- Only use the battery and charging cord that came with or is designed for the device; the power adapter is made specifically for that device. Do not buy cheaper chargers for replacement.
- Do not charge your device under your pillow, on your bed, on your couch or armchair.
- Do not charge your devices in exit stairs or exit hallways.
- Keep batteries at room temperature; do not place them in direct sunlight or keep them in hot vehicles.
- Always charge your batteries at room temperatures and in a well-ventilated space. Extreme temperatures both hot or cold can cause damage.
- Store batteries away from anything that can catch fire.
- Never leave devices charging unattended.



#### Signs of a Problem:

Stop using the battery if you notice these problems: odor, change in color, too much heat, change in shape, leaking, or if you hear odd noises coming from the battery. If it is safe to do so, power off and move the device away from anything that is flammable. If the battery starts to smoke or catches fire, call 911 and activate the fire alarm pull station in the building you are in if it has a fire alarm.

#### Battery Disposal:

Lithium batteries cannot be discarded in the general trash. They must either have their terminals covered with tape or each battery must be placed in an individual plastic bag. Label each battery or battery collection container with "Universal Waste-Batteries" and the accumulation start date; store inside a building; and submit a chemical waste pickup request in EHS Integrator right away. Call EHS at 203-432-6545 with questions.

For leaking, bulging, smoking, or hot batteries, call Yale Fire Marshals Office On-Duty Fire Inspector at 203-432-6888.

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