

Safeguarding Against Lithium-ion Battery Fires

Lithium-ion batteries use Lithium-ions to generate power required by many of our personal devices. The Lithium-ions are comprised of a very light metal with high energy density. While the high energy density allows lithium-ion batteries to store higher volumes of energy in small devices, such as cell phones, tablets, scooters, etc., it can also create fire safety concerns. The more energy that you put into a fire the faster and hotter it burns leading to a faster spreading fire and limiting the amount of time someone has reach safety.

Proper care and use of lithium-ion batteries is critical for safeguarding against the threat of fires from combustion or explosion.

The Fire Department of New York (FDNY) has provided the following information on their website, which OPWDD believes are best practices. Some highlights and additional information are listed below.

[Safety Tips for Devices with Lithium-ion Batteries - FDNY Smart](#)

Proper care of Lithium-Ion Batteries:

- Always use the manufacturer's cord and power adapter made specifically for the device.
- Follow the manufacturer's instructions for charging and storage. Including, plug the charger directly into a wall electrical outlet for charging.
- When purchasing devices, be sure that the equipment has the Underwriters Laboratories (UL) mark. The UL mark shows that the product has been safety tested.
- Keep batteries/devices at room temperature. Do not place in direct sunlight or near heat sources.
- Store batteries away from anything flammable.

Avoid

- Overcharging.
- Do not charge a device under your pillow, on your bed, or on a couch.
- Plugging into a power strip or overloading an outlet.
- Using after-market (or generic) batteries or chargers.
- Do not charge between yourself and the primary way in/out of the room.

What to look for:

- Battery overheating
- Battery produces an odor
- A change in shape or color
- Leaking
- Odd noises from a device
- Fire Extinguishers do not work on Lithium-ion Fires. Reignition of lithium-ion battery fires commonly occurs, even days after visible fire has been put out.

Should any of the above occur, discontinue use immediately. If safe to do so, move the device away from anything that can catch fire and call 9-1-1.

Proper Disposal

- Putting lithium-ion batteries in the trash or recycling at home is illegal.
- Recycle batteries by taking them to a battery recycling location or visiting nyc.gov/batteries for disposal instructions is always the best option. If not in NYC, contact your local fire authority for proper disposal recommendations.
- Individually bag batteries or tape ends before disposing of them.

You can find additional information on Lithium-Ion Batteries at the following resources:

- [Lithium-ion Batteries - "Buy Safe, Charge Safe" \(youtube.com\)](https://www.youtube.com/watch?v=...)
- <https://www.fdnysmart.org/wp-content/uploads/2021/12/FDNY-Lithium-ion-batteries-060321-05.pdf>
- <https://www.dhSES.ny.gov/system/files/documents/2023/09/lithiumion.pdf>