

Charge into Fire Safety™

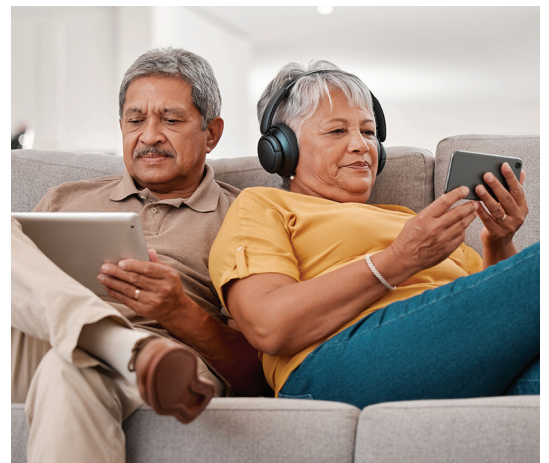
JUST
10!

Topic: Lithium-Ion Batteries in Your Home

Audience: Adults who use rechargeable devices and would benefit from learning how to help reduce the risk of lithium-ion battery fires.

Lesson Objective: By the end of the mini-lesson, attendees will be able to:

- Identify common household devices powered by lithium-ion batteries.
- Demonstrate safe behaviors when buying, charging, and recycling lithium-ion battery-powered products.



Educational Messages to Review:

Chapter 20: Battery Safety

20.1 Lithium-Ion Batteries

20.3 Battery Disposal

Step 1: Introduction (2 Minutes)

Greet participants and thank them for their time.

- Introduce yourself and briefly share your connection to the community.
- Explain the purpose of your visit:
"Today we're going to talk about something in your home—lithium-ion batteries. Most of the rechargeable electronics we use in our homes every day are powered by lithium-ion batteries."

HOOK: "How many rechargeable electronics are in your home right now? A smartphone, a tablet, e-cigarettes, headphones, maybe an e-bike or power and lawn tools? These items are often right next to our beds, couches, and kids."

Allow participants to discuss lithium-ion powered electronics they have in their home.

"Lithium-ion batteries store a lot of energy in a small place. These batteries can overheat, start a fire, or explode if overcharged or damaged. Let's learn how to Buy, Charge, and Recycle these batteries safely to help prevent a lithium-ion battery fire in your home."

Step 2: Body of the Presentation (7 minutes)

Use visual aids and real devices to demonstrate key points. Pass around or hold up examples like a phone, laptop, or toy with a lithium-ion battery. Show packaging with the safety certification stamp (e.g., UL, ETL, CSA).

BUY only listed products

When buying something with a lithium-ion battery, take time to research the product. Look for a safety certification stamp from a nationally recognized testing lab like UL, ETL, or CSA. This means the product meets important safety standards.

- **Optional:** Show a device with a safety certification stamp from a nationally recognized testing lab (e.g., UL, ETL). Ask participants to locate the safety certification mark on the device or point it out to them.
- Explain that it's important to be careful with online or off-brand products that may not meet safety standards.
- Encourage participants to buy new chargers from the manufacturer or buy one that the manufacturer has approved. Resist the temptation to buy a cheap cable that may not be made for your device.
- Bring in one or two generic third-party chargers and compare them to a manufacturer-approved charger. Have participants spot the differences—logos, safety stamp from nationally recognized testing lab, cable thickness, etc.



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— Charge into Fire Safety™: Lithium-Ion Batteries in Your Home —

CHARGE devices safely

- Explain that you should always use the cables that came with the product to charge and follow manufacturer instructions.
Ask: “Where do YOU usually charge your phone, laptop, or tablet? Is that a hard, flat surface?” Participants can turn and share with a neighbor or write down their answer and reflect.
- Tell participants to charge devices on a hard surface. Don’t charge it under a pillow, on a bed, or on a couch. This could cause a fire.
- **Optional:** Demonstrate or show images of safe charging locations versus unsafe ones (e.g., couch versus table). Participants can engage with a thumbs up for safe charging locations and thumbs down for unsafe charging locations.
- Say, “Don’t overcharge your device. Unplug it or remove the charging battery when it’s fully charged.”
- Explain that it’s best to charge large devices (e-bikes, e-scooters, tools) outside, away from doors and windows.
- Show photos of e-bike, e-scooter, tools charging using best practices—charging outdoors or in a safe, ventilated area.

Signs of a problem:

“If your device gets too hot, starts to smell strange, makes popping noises, or has changes in shape or color, stop using it right away. If it’s safe, move the device away from anything that can catch fire. Call 9-1-1.”

Optional:

Show a sample device or images of damaged devices and point out damage.

RECYCLE batteries responsibly

- Hold up a small lithium-ion battery or a device (or show an image).
Ask: “Where would YOU throw this away?”
- Explain that you should use the following tips when disposing of batteries:
 - ✓ Don’t throw lithium-ion batteries in the trash or regular recycling bins because they could start a fire.
Ask: “Did you know that recycling batteries helps the environment? The materials in the batteries can be reused.”
 - ✓ Recycling your devices or batteries at a safe battery recycling location is the best way to get rid of them.
 - ✓ Visit **call2recycle.org** to find a drop-off location near you.
 - ✓ To prevent fires:
 1. Tape the positive (+) side of the battery with clear packing tape, electrical tape, or duct tape.
 2. Put each used battery in a clear plastic bag.

Step 3: Conclusion (1 minute)

“Many of the things we use every day—like phones, tablets, tools, and toys—use special batteries called lithium-ion batteries. These batteries are powerful, but we have to be careful with them. If we buy safe products, charge devices safely, and recycle batteries responsibly, we can help keep ourselves and our homes safe from lithium-ion battery fires.”

Ask: “What’s one new thing you’ll do at home with your lithium-ion batteries?”

Provide/Share:

- FPW safety tip sheet
- Video about thermal runaway
- Optional: a QR code or link to **fpw.org**

The listing of specific commercial products or services herein is solely for educational purposes and does not imply endorsement by NFPA, nor discrimination against similar services not mentioned.



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