

As the technology improves  
and the costs come down,  
lithium-ion batteries are in  
more and more products.  
Here are few examples:

Smartphones	LED Lanterns
Laptops	Children's Toys
Tablets	Portable Projectors
E-readers	Electric Kettles
Digital Cameras	Hair Dryers
Action Cameras	Cordless Blenders
Wearable Fitness	Vaping Devices
Trackers	E-cigarette Cartridge
Smartwatches	Refills
Wireless Headphones	Bluetooth Trackers
Bluetooth Speakers	Mini Fans
Portable Power Banks	Portable Heaters
Electric Toothbrushes	LED Candles
Cordless Drills	Electronic Key Fobs
Leaf Blowers	Smart Locks
Electric Lawn Mowers	Breathalyzers
Robotic Vacuum	Musical Instruments
Cleaners	
Electric Scooters	
E-bikes	
Hoverboards	
Electric Skateboards	
Drones	
Handheld Gaming	
Consoles	
VR Headsets	
Smart Home	
Devices	
Electric Shavers	
GPS Navigators	
Medical Devices	
Flashlights	
Remote Controls	
Security Cameras	
Smoke Detectors	
Emergency Radios	
Solar Lights	



**LARM**  
1335 L Street  
Lincoln NE 68508  
Phone: 402-840-2069  
E-mail: [john.hobbs@larmpool.org](mailto:john.hobbs@larmpool.org)



# Lithium-Ion Battery Recycling



Why is it important  
and what can you  
do to help?



## Lithium-Ion Battery Risks

**They are in the devices that we use every day:** phones, tools, toys, even larger items like hoverboards, leaf blowers and e-bikes. Truly amazing in their ability to deliver electricity without a cord, lithium-ion batteries can pose a safety hazard, especially when damaged or improperly disposed of.

**Thermal Runaway:** This is a catastrophic failure where the battery can overheat, leading to fires or explosions. The risk increases if the battery is damaged, overcharged, or exposed to extreme temperatures.

**Chemical Hazards:** Lithium-ion batteries contain toxic materials like cobalt, nickel, and sometimes lithium itself, which can be harmful if they leak into the environment.

**Fire Risks:** The potential for fire is not just limited to the device itself; it extends to waste management systems. When batteries are crushed or punctured in waste processing, they can ignite, causing significant fires in recycling facilities and garbage trucks.

## What Can You Do?

The most effective way to reduce lithium-ion fire risk is to properly recycle lithium batteries and devices with non-removable batteries. Statistics vary by battery and device type, but it is believed that over 75% of lithium batteries end up in landfills. These batteries leak toxic chemicals, and can cause fires in landfills, sanitation trucks, and facilities.

Recycling recovers valuable materials like lithium, cobalt, and nickel, reducing the need for mining. It cuts greenhouse gas emissions and prevents soil/water pollution. Recycling also creates jobs and supports a circular economy.

When you recycle, batteries are collected, dismantled, and materials are extracted for reuse in new products. Up to 95% of a lithium battery can be recycled!



## WHERE TO RECYCLE

- **Check with your garbage service, transfer station, or landfill to see if they accept lithium batteries and devices.**
- **Contact your city government to see if they have a lithium battery collection location or special collection days.**
- **Several major retailers like Home Depot, Lowes, Staples, Best Buy, and Office Depot accept lithium batteries and devices for recycling.**
- **Some big box retailers and farm supply stores will accept batteries from products that were sold there. Contact them directly for more information.**
- **Go to [www.call2recycle.org](http://www.call2recycle.org), a site that may provide additional locations for recycling.**
- **Websites including [www.call2recycle.org](http://www.call2recycle.org), [www.cirbasolutions.com](http://www.cirbasolutions.com), and [www.batteryrecyclersofamerica.com](http://www.batteryrecyclersofamerica.com) offer recycling kits for purchase. These kits come with prepaid shipping so they can be returned once full.**