Recycling:

Items containing lithium-ion batteries should never be disposed of in household rubbish.

Why?:

- when batteries are crushed in bin lorries, they can be damaged
- a damaged battery can spark and start a fire
- lithium fires are extremely dangerous because they release oxygen, making them intense and hard to put out.

To dispose of them safely you can:

- take them to a local battery collection point (often found in supermarkets and electronics stores)
- check with your local council to see if they offer battery recycling from your home
- visit your nearest recycling centre, where there will be dedicated disposal areas for lithium-ion batteries.

In case of a fire:

If a lithium-ion battery fire occurs, do not attempt to fight the fire yourself. Instead, evacuate the premises immediately, stay out, and call 999.

For more information, visit **www.dsfire.gov.uk** or contact our home fire safety team at **0800 0502 999** or **firekills@dsfire.gov.uk**

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Fire safety risks from lithium-ion batteries

Fire and rescue services nationwide are reporting an increase in incidents involving lithium-ion batteries, commonly found in everyday household electronics such as mobile phones, laptops, tablets, e-bikes, e-scooters, electric vehicles, e-cigarettes, and headphones. While these batteries are generally safe when purchased from reputable suppliers and used according to manufacturer guidelines, they can present significant risks if handled improperly.

As the popularity of these devices grows, so does the potential for fire risks, especially when batteries are damaged or improperly handled. Understanding how to safely use and charge these batteries is essential to reducing your risk of fires in the home or workplace.

Lithium-Ion Batteries: what you need to know

What are lithium-ion batteries?

Lithium-ion batteries are rechargeable, fast-charging, and have a high energy density, meaning they provide a lot of power for their size. They're widely used in phones, laptops, e-cigarettes, e-bikes, and electric vehicles due to their low emissions. While generally safe, they can pose risks if damaged or overcharged.

Types of lithium-ion batteries:

- prismatic: found in phones, laptops, and electric vehicles
- pouch cell: larger, flat batteries used in larger electric vehicles
- cylindrical (round): used in e-cigarettes and power tools.

Main risks:

- thermal runaway: rapid temperature rise can cause ignition, often due to overcharging or damage
- physical damage: dropped or punctured batteries may ignite
- overcharging: exceeding recommended charge levels can damage the battery and cause fires
- external heat: exposure to extreme temperatures increases fire risk.

Safety tips for charging:

- charge your devices and equipment during the day, instead of the night while you're sleeping, and ensure they're charged away from escape routes
- unplug after charging and use manufacturer-approved chargers
- avoid charging on soft, flammable surfaces, like bedding
- if a battery shows signs of overheating, swelling or other forms of damage do not use the battery, safely remove it and report the incident to the appropriate authorities
- always seek professional guidance when converting a bike or scooter into an e-bike or e-scooter
- only purchase your device and charging equipment from a trusted seller and check product reviews.