

# The increase of Lithium battery fires

Source: Devon and Somerset Fire and Rescue Authority www.dsfire.gov.uk/safety/home/battery-fires?dm\_i=58YG,U2GR,42A82Z,3JHE4,1

We've seen an increase in the number of fires caused by lithium-ion batteries. See how you can use and store them safely to reduce your fire risk.

# What is a lithium-ion battery?

They are the rechargeable batteries in electrical items such as mobile phones, laptops, e-scooters, e-bikes and e-cigarettes. The device you're reading on right now is probably powered by a lithium-ion battery.

# The dangers

These batteries are safe during normal use, but present a fire risk when over-charged, short-circuited, submerged in water or damaged.

They are a main cause of waste fires and can be extremely dangerous when thrown away with general rubbish, or mixed with recyclable materials like card, metal and plastic. Lithium-ion batteries are extremely sensitive to high temperatures and inherently flammable. They cause fires that quickly spread and are difficult to extinguish, causing widespread damage

## Causes of battery fires

- Rapid overheating (a process called thermal runaway) leading to fire or explosion.
- Overcharging exceeding the recommended

- charging time or voltage can cause overheating and potential fire hazards.
- Damaged batteries may release flammable electrolytes, increasing the risk of fire.
- Exposure to high temperatures accelerates the ageing process for batteries and increases the likelihood of a battery failure.

### Our safety advice

- Keep batteries in a cool, dry place away from flammable materials and direct sunlight.
- Recycle damaged or swollen batteries at designated recycling points.
- Always use the charger supplied with the device or recommended by the manufacturer.
- Avoid overcharging use a charger with automatic shutoff or a timer to prevent overcharging.
- Never leave batteries unattended while charging and do not charge them overnight.
- If a battery shows signs of swelling, overheating, or emitting smoke, safely remove it and report the incident to appropriate authorities.

## DO NOT STORE DEVICES POWERED BY LITHIUM BATTERIES IN YOUR ALMSHOUSE



#### E-bikes and e-scooters

This image was taken at a fire we attended involving an electric bike. Our crews had to rescue five people from a building due to the escape route being blocked by the fire.



If you use rechargeable bikes, scooters, motorbikes or mobility scooters make sure you follow our safety advice.

- Make sure you have working smoke alarms on every floor of your home and in the room where you charge the bike/scooter.
- Always use the charger supplied with the device or recommended by the manufacturer
- If you spot signs of wear and tear or damage, buy an official replacement charger for your product from a reputable seller.
- Keep escape routes clear so you can evacuate quickly and safely.

- Do not charge the battery overnight.
- Do not charge the batteries for any longer than they need to fully charge.
- Plug the cable into a mains socket rather than an extension lead.

As a Resident of Exeter Homes Trust, if you encounter an emergency situation or what you perceive to be an unlawful incident in or around your home or Almshouse estate, please phone 999 in the first instance.

Exeter Homes Trust does not provide support or extra care services.

The Exeter Homes Trust phone number 01392 421162 is switched through automatically to KS Engineering Ltd (EHT's mechanical & electrical services contractor) between 17:00 hours and 09:00 hours and weekends and bank holidays. This arrangement has been in place since Autumn 2014. This service was available throughout the COVID-19 Emergency and is a valuable resource for residents.

Store batteries safely and correctly

Recycle damaged batteries safely Use the charger supplied with the device

Avoid over-charging

Do not leave batteries while charging Replace damaged batteries & chargers

#### DO NOT STORE DEVICES POWERED BY LITHIUM BATTERIES IN YOUR ALMSHOUSE