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Guidance Battery safety for e-scooter users

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Applies to England, Scotland and Wales

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E-scooters are small electric vehicles on which the rider stands.

Currently, in the UK, only e-scooters participating in official rental e-scooter trials may be used legally on roads. Read [E-scooter trials: guidance for users](#) to find out where you are allowed to ride an e-scooter rented as part of a government trial, how to travel safely, licensing advice and the rules of the road.

Other e-scooters, not part of these official trials, are classed as [powered transporters](#) and cannot be used legally except on private land with the permission of the landowner.

If you use an e-scooter illegally, you could face a fine and penalty points on your licence, and the e-scooter could be impounded.

Fire safety guidance

The government is aware that a significant number of privately owned e-scooters have been purchased and used, and that the fire services have reported a significant number of battery fires involving privately owned e-scooters.

E-scooters are generally powered by lithium batteries and are supplied with a battery charger that plugs into a normal household mains socket.

This guidance comprises advice from:

- National Fire Chief's Council
- London Fire Brigade, including the #ChargeSafe campaign
- the UK cycle industry trade association, the Bicycle Association

Buying an e-scooter

The safest choice is to buy an e-scooter from a reputable retailer.

Register your product with the manufacturer. This makes it easier to contact you in the event of a [recall or safety alert](#).

Be especially careful when buying second-hand, refurbished or converted e-scooters. It can be hard to establish reliably whether such products are counterfeit or genuine, and whether they meet proper UK (or EU) standards. Look for CE or UKCA marking.

Buying replacement batteries and chargers

If you need a spare battery pack or charger, buy only genuine items authorised by the e-cycle or drive system manufacturer. Using a reputable supplier will reduce the risk of being sold counterfeit items. Genuine battery packs and chargers may cost more, but using third-party items that may not be safe or compatible could put your life at risk or destroy your home.

Modification or de-restriction

Some users may be tempted to modify e-scooters to increase the maximum speed or power. This is not recommended as it will increase the likelihood of a fire.

Even if carried out without introducing direct electrical hazards, such as short circuit risks through poor wiring/connection, modifications of this type generally increase the electrical load on the battery and drive system. These may then overheat, substantially increasing the risk of fire.

Where to store and charge e-scooters

Do not charge an e-scooter where it could prevent you from safely leaving your home if a fire breaks out.

Avoid storing or charging e-scooters on escape routes or in communal areas of multi-occupied buildings.

Ensure everyone is aware of an escape plan in the event of a fire.

If possible, store and charge e-scooters in a shed or garage separate from your home.

As far as possible, do not charge batteries or store your e-scooter near combustible or flammable materials.

If you charge or store your e-scooter inside your property, ensure you install suitable fire detection. Fire and rescue services recommend heat alarms rather than smoke alarms for garages or kitchens. Ensure you have working smoke alarms in other rooms. Avoid excessively hot, cold or damp areas, especially for charging.

Charging an e-scooter

Use only the charger supplied with the e-scooter or a replacement authorised by the manufacturer.

Follow the manufacturer's instructions for storage, charging and maintenance of your battery pack.

Do not overcharge your battery – check the manufacturer's instructions for charge times and unplug your charger once the battery has charged.

If it is hot after intensive use, let the battery cool before charging it.

It is vitally important that you charge batteries only while you are awake and alert so that if a fire should occur you can respond quickly. Do not leave batteries on charge while you are asleep or away from the home.

Do not cover chargers or battery packs when charging as this could lead to overheating and possibly fire.

Batteries should never be exposed to extreme temperatures (keep them out of direct sunlight when not in use).

Do not overload socket outlets or extension leads. Use extensions uncoiled and ensure the lead is suitably rated for what you are plugging into it – especially if using multiple chargers at once, or other electrical loads.

Be alert, both while charging the battery and while using the e-scooter, for any of the warning signs listed below, and know how to act if you detect a fire hazard.

Warning signs for fire risk

The warning signs that your e-scooter battery pack could be a fire hazard include:

- Heat**

It's normal for batteries to generate some heat when charging or in use, but if it feels extremely hot to the touch, it may be defective and at risk of fire so stop charging it immediately.
- Bulging, lumps and leaks**

A battery bulging or swelling out of shape is a common sign of it failing. You should stop using it immediately. The same applies if there is any type of lump or leak from the device.
- Noise**

Failing lithium batteries have been reported to make hissing or cracking sounds.
- Smell**

A strong or unusual smell (which could be toxic) from the battery could be a sign that it's failing.
- Performance**

Failure to fully charge, or longer charge times, can be a sign that your battery is failing.
- Smoke**

If your battery or device is smoking, a fire has already started. Raise the alarm, get out, stay out and call 999 immediately.

If you see signs that your lithium battery could be a fire hazard

If your battery shows any of the warning signs listed above but is not smoking or on fire:

- immediately turn off and unplug the charger
- if possible, carefully move the e-scooter and/or battery pack outside away from people, pets and combustible materials or to a location where risks would be minimised if the battery were to catch fire
- check for safe disposal options as detailed below or call the device manufacturer or retailer for further instructions

If the device starts smoking or catches fire:

- raise the alarm, get out, stay out and call 999 immediately
- once the incident is resolved and everyone is safe, [report the faulty battery to Citizens Advice in England and Wales](#) or [Advice Direct Scotland in Scotland](#) and to the manufacturer or to whoever sold the device to you

Damaged batteries

Battery packs can be damaged in use, most often by dropping them or in a crash.

Damaged batteries can catch fire without warning. Check your battery regularly for any signs of damage. If you suspect any damage, you should replace the battery. Do not charge or use it.

Disposing of a lithium e-scooter battery

Check the instructions and if safe and possible, remove the battery pack from the e-scooter.

Do not dispose of it in your household waste or normal recycling. These batteries can cause fires in bin lorries and at recycling and waste centres.

The manufacturer or importer of your e-scooter must offer a free take-back service for waste e-scooter battery packs. Contact them for details or ask the retailer where you bought the e-scooter. Alternatively, check with your local authority for suitable battery recycling arrangements in your area.

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