

Vape deals are everywhere this Christmas—here's how to deal with the horrific waste problem

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Vape deals are all over the place in the run-up to Christmas. Vape kits, e-liquids and accessories are being widely promoted as stocking fillers,

frequently with upwards of 50% off.

There's certainly a big market, with [nearly 5 million](#) vapers in the UK alone, growing at nearly 10% a year. Many are no doubt attracted by all the bright colors and funky shapes, not to mention a [UK government plan](#) to offer starter kits to one in five smokers to help make the nation "smoke-free" by 2030.

Quite aside from the potential health issues, this is causing an enormous waste problem—above all with disposable vapes. These now make up [almost a third](#) of the whole market, a near-doubling in share in the past year alone. According to research by [recycling](#) campaigners Material Focus, some [5 million vapes](#) are now being disposed of weekly in the UK—that's nearly 500 a minute.

So how bad are the consequences, and what might a solution look like?

Why it's a problem

Vapes traditionally consist of an e-liquid cartridge, heating element, wick, built-in battery, and a mouthpiece. Disposable vapes are very similar, except that instead of a cartridge, there's typically a small quantity of e-liquid absorbed into the wick; when the wick dries out, the device is spent. For both disposables and reusables, there's usually also an electronic system to control power and functionality and ensure safe operation.

These devices consist of plastic, glass, rubber, various metals and cotton. The electronic parts use elements that are both valuable and potentially hazardous. These include lithium in the batteries, various heavy metals and rare earths in the battery, circuitry and wiring, and aluminum in the cartridge and battery casings.

To give just one example of what we're throwing away, research

[published in 2022](#) indicated that annual UK vape waste included 10 tonnes of lithium, enough to power 1,200 [electric vehicles](#). And with vape disposals having [already trebled](#) since then, the figure is now likely to be considerably higher.

When it comes to recycling, vapes are comparable to other small devices such as electric toothbrushes, smoke detectors and battery-operated toys. These are all complex to recycle, even if few [product lines](#) have been growing so quickly as vapes. Most concerning, however, is the environmental footprint of the disposables.

[Most are not](#) disposed of properly and end up in household trash or even littering pavements, public amenities and beaches. [By law](#) they are supposed to be disposed of in the same way as electrical toys and sports equipment, either via household waste-recycling centers or retailer take-back channels, where they are subsequently sent for dismantling and recycling or safe disposal.

If you look closely at the product or packaging, this requirement should be confirmed with a symbol of a crossed-out wheellie bin with a thick line underneath, which refers to WEEE (waste electrical and electronic equipment) recycling, though in my experience this is not always evident.

Improper disposal of vapes [can result](#) in harmful chemicals leaching into the environment. There's a fire and explosion hazard when batteries become detached, damaged or submerged in water. Disposable vapes are also linked with [generating microplastics](#).

Unfortunately producers, importers and retailers are not fully acknowledging or even understanding the problem. This is exemplified by most UK producers failing to register with a UK environmental agency under WEEE regulations, which they are supposed to do. Instead

most mistakenly [register with](#) the Medicines and Healthcare Products Regulatory Agency.

Meanwhile, leading disposable-vapes manufacturer Elf Bar was [recently censured](#) by the Advertising Standards Authority for playing up the recycling service it offers customers, when in reality all manufacturers are supposed to offer this service, and also because it implied vapes could be disposed of at home.

What can be done

Clearly, users need a greater understanding of the environmental harm and potential dangers that improper disposal of single-use vapes can cause, as well as better awareness of and access to suitable recycling facilities. Local drop-off points and take-back schemes for small electrical items could be better promoted for single-use vapes by councils, while everyone from universities to festivals could incentivise vape-recycling or offer collection points.

Even then, the fire hazard during storage and transport is a concern. To this end, Veolia, the largest waste management company in the UK, [recently launched](#) a nationwide fire-safe vape-recycling scheme where retailers are supplied with containers of vermiculite, a mineral that minimizes the risk of combustion. The vapes are then transported in these containers to specialist facilities for recycling.

Veolia and the UK Environment Agency are also calling for vapes to be put in their own unique WEEE category because of the quantities and hazards associated with them. Alternatively, it's sometimes suggested that councils should be made to start including all WEEE electrical waste in their rubbish collection.

Other potential solutions include getting the manufacturers to bear more

costs towards vape collection and recycling, making them put clearer instructions about safe disposal on the packaging, or even banning disposable vapes altogether. This latter option is currently being considered by the [Scottish government](#) and would be my preferred choice.

In the meantime, for individuals getting knockdown deals on vapes this Christmas, it is best to keep spent ones in good condition and with the battery intact until you can get to a suitable recycling facility. Your retailer should be able to point you towards the nearest one, or else the information is [available online](#). Whatever you do, please don't make this waste problem any worse than it is already.

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