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# The environmental cost of wearable tech

## Do smartwatches and fitness trackers have a sustainability problem?

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Smartwatches and fitness trackers are a revolutionary piece of kit for many. But they are also a relatively short-lived product with a big environmental footprint.

The Global Electronics Council (GEC), a sustainable tech focused non-profit, has said that electronics such as these 'represent the fastest-growing waste stream in the world, currently generating more than 48 million tonnes of e-waste annually'. The UN concurs, saying we face 'a tsunami of e-waste'.

Just over a third (35%) of us own a wearable device, according to a [2024 YouGov survey](#). All of this technology will need replacing - and disposing of - at some point in the near future.

So what to do if you want to keep track of your health, fitness and life admin without the eco consequences?

We explain the problem, and what you can do to minimise it.

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## Why are smartwatches and fitness trackers bad for the environment?

The manufacture of smartwatches and fitness trackers takes a heavy toll on the environment, due in no small part to how quickly we get through them. Some brands are making efforts to reduce their impact, but when we conducted lifecycle analysis, we found the production stage accounted for 89% of a product's overall environmental impact.

Parts, such as the display and electronic components, are often made of rare materials, in a carbon-intensive and highly polluting process. Many parts of the production process also create greenhouse gas emissions, including mining of minerals, manufacturing, assembly and transport.

And they don't last long. Wearables are typically only kept for 3-5 years. Beyond this, plenty develop faults or lose security support, according to our survey of users and manufacturers. That's assuming owners haven't already upgraded to newer models.

Chargers often differ brand to brand; sometimes even model to model. This too generates e-waste, as the previous charger is rendered redundant when you buy a new model. It's taken a crackdown by the EU to make manufacturers agree to standardise chargers for phones to minimise waste, and other electronic devices such as wearables are in the pipeline.

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## Should I buy a smartwatch or fitness tracker?

Don't let this discourage you from buying a wearable if you're genuinely going to benefit from it. By choosing your product carefully, holding onto it for longer, and disposing of it correctly, you can reduce its environmental impact.

Our lifecycle analysis showed that increasing the lifespan of a wearable by just two years would make a significant difference to its overall environmental impact.

Both individuals and manufacturers have a part to play here.

Some 8% of wearables aren't even used, according to YouGov's 2024 wearables survey. That's an

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awful lot of tech gathering dust. So before you buy, make sure you do your research.

Most importantly, think about your core needs. Do you want access to key phone features on your wrist, or are you mainly looking for help achieving health and fitness goals? This will help to narrow down the best model for you.

Make sure you try out some products in person to get a feel for them. And check our independent [smartwatch reviews](#) and [fitness tracker reviews](#) to find the best recommendations.

Unsure what you need? See our guide to [smartwatches vs fitness trackers](#).

Don't be tempted by a dirt-cheap wearable, thinking it's no great financial loss if you hate it. [Our tests of ultra-cheap wearables have found they usually perform poorly and/or could expose your personal data to hackers.](#)

If you want to dip your toes in the water first, try out a fitness app on your phone, such as the NHS [Couch to 5K app](#) or [Active 10 app](#), or consider renting a wearable.

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[Is it worth buying a smart ring?](#) Find out what they offer versus fitness trackers and smartwatches, and what our initial tests revealed

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## Buying second-hand wearables or renting



Renting a fitness tracker or smartwatch – or buying a refurbished model – are good options to consider.

Plenty of platforms sell refurbished wearables, including [Apple's refurbished store](#), [Back Market](#), [CEX](#), [Music Magpie](#) and [The Big Phone Store](#).

Buying through an official retailer means you'll be covered by the Consumer Rights Act. This means that goods must be as described, fit for purpose and of satisfactory quality, with any faults highlighted.

Renting is still relatively in its infancy, and conditions vary. [Music Magpie](#) and [Raylo](#) both offer this option. Music Magpie has a minimum contract of 12 months, with prices from £8.99 a month for a refurbished Apple Watch. Raylo offers a monthly rolling contract, allowing you to have a shorter tryout. Prices start from £15 a month for an Apple Watch 9 (all products are new).

### Keep ongoing support in mind

It's worth checking how long your smartwatch or fitness tracker will be supported for. Manufacturers commit to varying levels of ongoing security updates for smart tech products, and once lost, this can leave your device vulnerable.

Which? has long campaigned for brands to be as open as possible about how long devices will be supported for, so that consumers have all the facts before buying. As a direct result of this, from 29 April 2024, [brands selling connected products in the UK will be obliged to disclose how long their devices will be supported for.](#)

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Discover the [best and worst places to buy second-hand online](#), and make sure you understand [your rights when buying second-hand products](#)

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## How to make your smartwatch or fitness tracker last longer



Buying from a reliable brand is a good starting point, but performance matters too.

Brands that score highly for reliability aren't always the best at key selling points in our performance tests, such as accurate tracking and battery life, which will impact how much use you get out of them.

Sadly, when it comes to sustainability, there's often no easy answer. You'll need to weigh up your

requirements and find a model that ticks as many boxes as possible. And, when you have your wearable, do what you can to make it last longer.

The most common wearables faults reported by our survey respondents were:

- battery problems
- freezing
- control buttons no longer working
- syncing issues
- straps breaking

Some of these are beyond your control, but good strap care is one thing you can keep on top of. Clean your strap with water and avoid getting chemicals, insect spray, alcohol or sunscreen on it to help preserve it.

Opt for a wearable with a removable strap so that if it breaks you don't need to replace the whole thing. Most have detachable straps, but our reviews highlight the ones that don't, or that need taking to a repair shop to have this done.

Read the manufacturer cleaning and troubleshooting instructions for your device carefully.

If your wearable needs repairing, contact the manufacturer before reaching out to a third-party repairer. There are plenty of independent repair shops, but getting it repaired by an independent company could invalidate your warranty.

You can request repairs for Apple, Fitbit, Huawei, Garmin and Samsung devices through their websites. Our March 2023 survey found that 42% of faulty wearables were successfully repaired, so it's worth a try.

Discover [the most reliable smartwatch brands](#) and [the most reliable fitness tracker brands](#).

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## What to do with old smartwatches and fitness trackers

Our 2023 tech reliability survey revealed that fitness trackers were more likely to be left in a drawer, or to end up in landfill, than any other piece of tech.

Nearly a third of fitness tracker owners still had their previous one. Some 8% confessed to binning an unwanted tracker at home; 6%, to putting it in general waste at the tip.

Putting electronics in landfill wastes precious, finite resources that could be re-used, and can lead to toxic substances leaching into the environment

It also costs the UK economy. Recycling campaign group Material Focus estimates that 'discarded or hoarded household electricals cost the UK economy £370 million per year of lost valuable raw materials such as gold, copper, aluminium and steel'.

Recycling isn't a perfect solution. It's difficult and dangerous to extract the valuable elements from wearables and devices don't always end up where they're supposed to, so it's best to get as much life from yours as possible before you get here.

Some charities can use old electricals to raise funds by selling them on or passing them on to low-income households who couldn't otherwise afford them

Options vary, so check our full guide to [how to recycle or re-sell your smartwatch or fitness tracker](#) responsibly, including how to wipe your data first.

## What can manufacturers do?



At present, it's impossible to buy a smartwatch or fitness tracker made of fully sustainable materials.

Exciting designs for [wearables made of sustainable materials, and wearables that actually dissolve rather than requiring disassembly](#) [↗](#), are being explored, but these are still in very early development stages.

For now, we want to see wearables manufacturers:

- Sourcing minerals responsibly
- Reducing carbon emissions during the manufacturing process

- Designing products that last longer
- Making repairs easy for consumers when products break
- Designing products that are easy to disassemble for repairs and recycling
- Offering trade-in schemes to encourage responsible disposal
- Establishing proper management systems to reduce impacts from hazardous chemicals used during manufacture
- Using recycled, and recyclable packaging.

While brands are keen to shout about their efforts, these are worth scrutinising.

Apple for example says that it is reducing plastic in its packaging, making greater use of recycled materials than before and aiming to make its supply chain carbon neutral by 2030, among other things. However, it tends to be tight-lipped on how long it supports products for (though in our experience it does offer some of the longest support periods on the market).

There's still some way to go. But holding onto your products for longer, and disposing of them responsibly, as well as voting with your feet, are key ways you can help make a difference.

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