

The best ebikes for every type of rider in 2024

Electric bikes, or ebikes, are on the rise. But how do you know which ebike is best for you and your riding? We charge up and ride five to (pedal) assist you with your queries...

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Electric bikes are the fastest-growing sector of the UK bike market, following the trend seen elsewhere. Half of the bikes sold in the Netherlands, for instance, are now ebikes. And you can see why. Not only are they environmentally a much sounder option than driving, they're also a great way for folk who are not in six-pack shape to start shedding the pounds.

That said, you'll find plenty of fitter riders using ebikes, too. The extra speed up the climbs means you can go further for the same effort, which is great if you're having to fit riding around work or parenting and want to squeeze as many miles as possible into a short time frame. They're also fun... though only to 25km/hr where they're capped by UK law! Here, we test a quintet on the market to suit numerous cycling scenarios...

Best on a budget - Volt Connect



Volt is the only dedicated electric-bike brand here, highlighted by their extensive range across the genres. Folding, mountain, step-through... they have the lot. We went urban, testing the nine-speed-gearped Connect around the rather sodden, winter streets of Bristol.

It's a utilitarian build, featuring full-length mudguards to deflect the worst the roads can flick up; a slick but strong pannier rack complete with elastic straps; front and rear lights that are powered by the battery; and an integrated security lock on the rear wheel. Its no-nonsense aluminium frame and reinforced wheels shout that this is one urban bike designed to batter the elements into submission.

The lithium ion battery sits within the downtube and is removable for easy charging. However, it's removed via a key. Activating the motor's by key, too. That strengthens security but isn't ideal for the absent-minded of us, so keep the spares somewhere safe. As for the motor, it's a 250-watt Bafang M200 that sits within the crank. And it's rather impressive, delivery a natural-feeling ride across three different modes. At its most frugal, range is around 100km, which is impressive.

It's a comfortable experience, improved via the Suntour forks, the likes of which you'd see on a mountain bike. It's a neat touch to smooth out wrinkles in the road. All in all, it's a fine urban bike, albeit all of that durability comes at a weight penalty with the bike plus battery coming in at over 23kg. So not one for those of you who live on the top floor of a flat.

Rating: 8/10

- [Buy now from Volt Bikes \(£2499\)](#)

Are e-bikes road legal?

All ebikes available from mainstream brands in the UK are road-legal 'pedal-assist' or 'pedelec' models. Their motors only kick in when you pedal and cut out at 25km/hr (15.5mph). Their formal moniker is 'electrically assisted pedal cycles' (EPAC), and you don't need a licence to ride one. Also, it doesn't need to be registered, taxed or insured.

What counts as an EPAC? According to the government, as well as having pedals to propel it, it must show either: the power output or manufacturer of the motor; and the battery's voltage or the maximum speed of the bike. An EPAC can have more than two wheels (like a tricycle).

What do I need to know before buying an ebike?

Your first port of call is, like you would a traditional bike, knowing which genre of ebike to buy. Looking to become the new Bradley Wiggins but with a little helping hand? You want an e-road bike. Predominantly to the office and back? An e-commuter, e-hybrid or e-folder? Heading off-road? If very gnarly, an e-mountain bike. If mildly gnarly, an e-gravel bike. Of course, this isn't the law. You can happily consume many a mile of tarmac on an e-mountain bike but, to maximise its features, choose the bike that suits your riding.

They really are an ingenious invention but there are a few downsides over a traditional bike. Despite the shrinking evolution of motors and batteries, the whole package is still heavier than unassisted versions. And while riding range is improving, it remains relatively low so remember to recharge regularly (thankfully, most batteries are removable). And all that tech comes at a cost with e-bikes starting at around two grand.

Is an ebike still good exercise?

In short, yes. You have to pedal before the motor kicks in so you'll still enjoy a decent workout even with that extra assistance. Broadly, the highest level of support is around 250% motor assistance; in eco mode, that cranks down to around 40%. You can even switch off the motor to ride like a normal bike.

European research has shown that urban ebike riders ride further than non-assisted riders. As distance is one component of a workout (alongside intensity), ebike riders can often enjoy greater fitness gains than traditional riders. In short, ebike regularly and your heart and lungs will grow, stress will drop and your smile will increase...

What makes a good ebike?

You can break this down into battery, motor and control...

- **Battery** While battery range is improving, the power packs themselves are gradually shrinking in size. As seen in our test, many are now small enough to be hidden inside the downtube, especially on higher-end ebikes. Most can be charged in situ, though, more conveniently, others can be removed from the bike for charging.
- **Motor** Drive units vary in terms of their torque, maximum assistance, response time before the assistance kicks in, smoothness and noise. The latest motors, such as Bosch's Performance Line CX (not tested here), offer enough grunt for even the steepest climbs and trickiest of trails - in this case, up to 340 per cent assistance and a maximum 85Nm torque.
- **Control** Most ebikes have controls on the handlebar or top tube and some have LCD screens, which make it easier to switch between modes, monitor battery life and see your speed and mileage. Some systems also now offer Bluetooth connectivity and phone apps, so you can track your heart rate and other data.

Are there any good alternatives to ebikes?

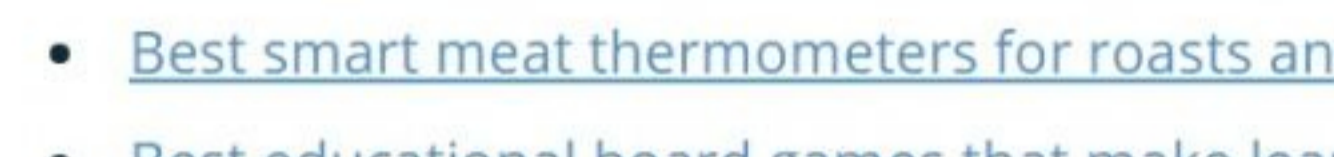
There are a few but each has drawbacks...

- **E-scooters** Those of us who live in Bristol have benefitted from rental schemes like that from Voi where you log into via an app. You can buy private e-scooters, too, but you can only ride them on private land. There's reason to believe that e-scooters will be able to go from private land to public roads in 2023. Watch this space...
- **Throttle-only ebikes** Legal ebikes require pedals to be turned so, in theory, throttle-only ebikes shouldn't be allowed. However, they can be 'type approved'. You can apply for the Type Approval certificate by filling in an online application and paying a fee of £55.00.
- **28mph e-mopeds** These fall broadly into the same category as 50cc petrol mopeds. They can be ridden by anyone of 16 or over who has either passed compulsory basic training (CBT) or has category Am or P on their existing driving licence.

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Former 220 Triathlon magazine editor James is a cycling and sports writer and editor who's been riding bikes impressively slowly since his first iridescent-blue Peugeot road bike back in the 80s. He's a regular contributor to a number of cycling and endurance-sports publications plus he's authored two books. The first, *The Science of the Tour de France*, was an Amazon bestseller. The second, *Training Secrets of the World's Greatest Footballers*, wasn't. Both involved embedding himself with the world's finest athletes to uncover the training, fuelling and tactical strategies that have taken them to the top. He also updated Haynes' latest *Bike Book*. His academic background is English Literature and Sport Science. He can often be seen trailing his teenage son around the bike parks of the UK.

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