



accidents don't have to happen

Electric Bike Series

Choosing, using and training – information from videos



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Electric Bike Series: choosing, using and training

This short guide is the printable version of the information from RoSPA's Electric Bike (e-bike) Series [videos](#), and contains all the same useful information: choosing an e-bike, using an e-bike, and taking training for e-bike use. The videos were produced because, with the increasing use of e-bikes, there has been a rise in the number of casualties (especially involving more mature cyclists) both in the UK and across Europe.

Choosing an electric bike – Louise Lee-Jones (Cycle Confident)

E-bikes are fast becoming commonplace on our streets with many people choosing an e-bike to replace short car trips. As well as the health benefits, e-bikes are environmentally friendly, and because of the cycling assist they provide, they can be ideal for hillier and longer journeys. The following explores some key questions you should ask yourself when deciding which e-bike to buy.

What are they key things you should consider when choosing an e-bike?

The first thing to think about is what you are going to be using the bike for. Many people will be using their e-bike for local journeys or travelling to work using the road and cycle tracks. A hybrid e-bike is perfect for this: they are comfortable, easy to look after, not too heavy, and they are likely to be a reasonable price. If you intend to ride on rougher terrain, an e-mountain bike with thicker tyres and suspension might be more suitable. As these e-bikes will have suspension, this will result in increased weight and cost. There are also electric assist road bikes, with lighter and thinner tyres, making them more suitable for longer journeys but more expensive. Folding e-bikes are ideal for commuters, for example when using trains or putting the bike in the boot between car journeys.

Does terrain affect your choice of e-bike?

When considering this question, it is important to think about the choice of battery itself rather than just the e-bike. If the e-bike is going to be used on a lot of hilly terrain, a good battery with a long range will be required as this will shorten the range. It is important to consider how the e-bike will be used to ensure that you have enough power to last the length of the trip. The surface you are riding on can also make a big difference as rougher surfaces can affect the roll resistance.



E-bikes are becoming very popular with more mature individuals – what specifications should be considered when selecting a suitable e-bike?

For more mature individuals that are considering purchasing an e-bike, they may find it easier to have an e-bike with a step-through frame, regardless of whether they have mobility issues or not. Many individuals and bike hire schemes are now choosing these frames – they are more versatile, as it is easier to get on and off them. It is also important to consider the weight of the bike, as e-bikes are heavier due to the presence of a battery. For this reason, it may be ideal for mature individuals to purchase a bike with walk assist, which will make it easier to manoeuvre the bike when it has to be pushed.



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With so much choice, what would be the most important advice you would give to someone thinking of getting an e-bike, especially if they've not ridden one before?

One of the most important things here is to spend some time getting familiar with the bike before you ride it for a decent distance. It is good idea to take the bike out for a test ride and see how it feels and if it works for you. It is also important to think about the absolute basics – hold the brakes when you get on and off the bike, make sure that you are holding it steady. If you have not ridden a bike for a considerable amount of time, you are likely to fall off it, so it is highly recommended that you have some training, preferably away from traffic until you have mastered handling the bike.

What about people buying an e-bike on a budget?

There are electric bikes available at all price ranges, and it is perfectly possible to buy one when you are on a budget. You will have to look at what it is you want and what you want to use it for, and make sure you are choosing a bike that is going to meet your needs. E-bikes have a range of different battery types and that is often the component that will make the difference in price, so it is important to get the type of battery which best suits your needs. Whatever your budget, consider buying from your local bike shop - they'll be able to help you choose a bike that's right for you, (and they will either make sure that they will be available to service it or know where you can get it serviced regularly) so that you will be able to enjoy your bike for many years.



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Using an electric bike – Ben (Cycle Republic)

Before riding your e-bike, it is worth remembering that irrespective of the model, all will have a maximum power engine of 250w, the electric assist must cut off at 15.5mph and you must be 14 or over.

If you want to make sure you get the ideal e-bike for you, what sort of questions should you be asking?

It is important to consider your budget, what your journeys are going to be like (especially the terrain, e.g. mainly flat or undulating), and how long your journeys are going to be. If you are not going to be covering large distances, you may want to go for a bike with a smaller battery capacity (making the bike cheaper). If you will be travelling for longer distances or carrying a lot of weight on your bike, you might want to get a bike with a larger battery/battery capacity.

General e-bike information

- The mechanical components of the e-bike, such as the gears and brakes, function just like they would on a regular bike. In terms of modes, “off” provides zero assistance, so you won’t need to think about the battery capacity at all in this mode. However, the bike will be quite heavy if you are pushing or riding it along, due to the extra weight of the battery/electronic system. “Eco” will provide you with the greatest range for the bike, but the downside in terms of assistance is that it might be slower to accelerate to the 15.5mph limit. As you go up through the modes, your acceleration will increase until you get to “turbo”. This is the fastest acceleration mode but will have a negative effect in terms of the range of the bike.
- The key feature of an e-bike is pedal assist: when you have to put in less effort to pedal. When pedalling, electronic assistance is distributed to the cranks, making it easier to accelerate and maintain a steady speed.
- On some e-bikes you are able to remove the battery, meaning that it can be charged away from the bike which is useful and will also make the bike much lighter and easier to manoeuvre.
- There is a wide range of e-bikes available, with many different combinations of features. For example, in some bikes the motor is in the middle, and in some it is inside the wheel, providing discrete assistance. Some e-bikes can connect to your smartphone via apps which have features including showing current speed, journey time and maps.



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Taking training - Louise Lee-Jones (Cycle Confident)

E-bikes come under the same rules as regular cycles and as such, a helmet is not required by law, and you do not need to take training and pass a test as you would for a motorbike. However, in both cases you are well advised to consider these, especially if you haven't ridden a bike for some time.

Once you've mastered the controls of an e-bike, it's not that different to a normal cycle, so why would you recommend returning cyclists to take training before using an e-bike?

For many people who are returning to cycling, it has been a while since they learned to ride, and the advice has changed considerably. Whatever your experience, you may find going out with an instructor will help you get used to handling the bike, the electronic assist, the weight and the speed of the bike. The instructor will also be able to help you with other aspects of riding a bike such as route planning and the best road position to take to protect yourself, such as at pinch points.



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Cycle Confident carry out e-bike training, what does this involve?

Cycle Confident and other accredited e-bike training schemes are based on the national standard for cycle training. It starts with preparing ourselves and the bike for a journey, before moving into an off-road setting such as a park where we cover riding with control of the bike. This will include using the electric motor to help assist with steady pedalling. We then move on to local roads, where we will cover riding according to the Highway Code and the national standard. We will then go on to more complex road situations, which involves riding in bus lanes, multilane roads and maybe fast moving traffic. All schemes will teach road positioning and when to ride in the secondary and primary position. The primary position is when you cycle in the centre of the lane. This position, sometimes referred to as “taking the lane”, is assumed when there isn’t space for the driver behind to overtake without squeezing past, such as at a pinch point, so by holding the primary position and looking back, you are encouraging the driver to overtake only when there is time and space to do so. If the lane was wider, and there was space to be overtaken without leaving the lane, riders should choose to ride in the secondary position, which is about a meter from the kerb. Riding in this position keeps you away from the kerb, grids, and road debris that may have accumulated at the edge of the carriageway.

Where can people access training?

The first place to look is your local authority by contacting the road safety team who are responsible for organising cyclist training. Many local authorities offer cycle training for free - make sure that you let them know that you want to be trained on an e-bike. If you don’t find any training through your local authority, you can get in touch with the Bikeability trust, who keep a record of all cycle instructors in England and Wales. If you are new to cycling or returning to cycling, training will help you to stay safe and it is a great idea irrespective of the roads or journeys you are planning.

Further cycle safety information can be found [here](#), on RoSPA’s dedicated web page.





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