The Leeds Teaching Hospitals NHS Trust

Leeds Wheelchair Service

Guide to choosing the right Wheelchair Accessible vehicle

Information for patients

Adult Therapies

According to the NHS (NHS England » Improving Wheelchair Services), there are 1.2 million wheelchair users in the UK. Wheelchair accessible vehicles provide greater mobility for both wheelchair users and their caregivers.

This guide aims to provide you with an in-depth guide to assist you in choosing the right wheelchair accessible vehicles.

Obtaining a WAV can be daunting, emotional and complex, for both the wheelchair user and their family or carer. Sometimes, the wheelchair user sees themselves as a burden to take out and about as a passenger, whilst the family or carer wants to try and improve the wheelchair user's quality of life.

So it's important to get the right support when choosing which is the best WAV for you.

What is a WAV?

WAV stands for Wheelchair Accessible Vehicles. A WAV is a wheelchair accessible vehicle conversion carried out to a standard production car or van, offering enough space inside to allow a wheelchair user to travel in their own manual or powered wheelchair as their seat in the vehicle. The reconstruction of the vehicle usually involves lowering the floor and fitting a wheelchair ramp for easy access as well as enough strengthening to support a wheelchair securing system.

WAV features often include:

- lowered floor (or sometimes, a raised roof) to assist entry and access as well as providing additional headroom;
- access ramp;
- special wheelchair restraints; and
- special wheelchair occupant seat belts.

Types Of WAV

There are three main types of WAV.

Passenger WAVs

With this type of WAV, the wheelchair user is only a passenger and they enter the vehicle in their wheelchair, through either a rear or side door, using a ramp or a lift. The wheelchair is then moved into position and locked securely in place. In the majority of vehicles, the wheelchair will be located in the rear of the vehicle. In some versions, the wheelchair can pass through the vehicle and into the front seat position.

Drive From Wheelchair Vehicles (DFW)

With this type of vehicle, the wheelchair user can also be the driver. In most vehicles, the controls need to be modified to meet the capabilities of the driver. In turn, this often means that only the wheelchair driver can drive the vehicle; however, in some cases, modifications can be made to allow the wheelchair user to drive or be a passenger.

Ride up front

This is an ever increasingly popular conversion option as the wheelchair user is 'up front' next to the driver in the traditional position of a front passenger.

It's usually a more comfortable place to sit and provides more social interaction. The only downside is that because the conversion is more complex, it can result in a more expensive option compared to passenger / driver WAVs.

Just as with normal cars, there are many options available. Researching and finding the correct WAV for the wheelchair user and their chair isn't as straightforward as when choosing an ordinary car. This is because all WAVs are different, two WAVs made from the same car model won't necessarily be the same.

There are then a number of options to consider.

Ramp or lift?

Ramps can operate electrically or manually. Although manual ramps are a cheaper option, you will probably need assistance to lower and raise them. Also, you must be able to propel yourself up the slope or rely on assistance. A winch can be installed to help pull you up. Both lifts and electric ramps are more convenient but also more costly and require additional maintenance.

Side or rear entrance

Rear entrance WAVs are more common than side entrance versions but they also have the disadvantage that you need the space behind the vehicle to deploy the ramp or lift for access. Another consideration with a rear entrance vehicle is that the wheelchair user enters and exits from the road as opposed to the pavement.

Manual or Electric Lock downs

Inside the vehicle, the wheelchair must be securely tied down for safety. Manual lock downs are more common, easy to use and efficient. For some people, electric lock downs are the more preferable option.

Headroom

Even with a lowered floor, if you're very tall, you may find that there isn't enough head room so ensure you purchase a WAV which gives you comfortable headroom.

Internal transfer WAVs

Internal transfer WAVs are modified to allow the wheelchair user to pass easily from the wheelchair into the driving seat. The wheelchair is then stowed in the vehicle.

Automatic or manual

This usually is a choice of personal preference of the driver. For a wheelchair user who will be driving, it is more common to have an automatic gearbox as this reduces the adaptations required.

Size

There are a range of options in size just like with a standard car.

Small Wheelchair Accessible Vehicles

Small WAVs are based on models such as Citroen Berlingo, Peugeot Partner and Fiat Doblo. They are ideal for use as a single wheelchair passenger vehicle and normally comprise a driver, front passenger and one or two rear seats, depending on the width of the wheelchair.

Small WAVs are ideal for running around town as they are economical and easy to park. If, however, you want to carry more passengers or lots of luggage, you will need to look for a larger vehicle. Don't forget to take into account where you will park it and make sure it will fit in your garage or driveway.

Fiat Doblo currently has the largest available space for a wheelchair user in a manual or power chair, and the optimum seating height. Some Peugeot Partners and Citroen Berlingos come as a 5 seater option. They were designed with taxi use in mind and the rear seating is folded up to make the wheelchair position and therefore, suitable for occasional wheelchair use.

Medium Wheelchair Accessible Vehicles

Medium WAVs can be based on VW Caddy, Ford Connect, Vauxhall Vivaro, Renault Trafic and VW Transporter or Caravelle. While larger on the outside, it doesn't always transpire to having more space inside for the wheelchair user. Squarer van-based vehicles often have additional rear seats fitted so that they can accommodate more passengers. Sometimes, they also offer a double front passenger seat for additional occupancy.

Some of these vehicles have a rear tail-lift fitted and do not have a lowered floor. With these models, you should take care to ensure there's enough headroom for the wheelchair user and also the carer, whilst fitting the wheelchair securing system and passenger seat-belt.

Large Wheelchair Accessible Vehicles

Large WAV vehicles are based on minibus-sized vehicles and include Renault Master, Peugeot Boxer and Mercedes Sprinter. These types of vehicles usually have lots more space for a versatile seating layout and include other movable seats, which are fixed into tested tracking. Access is via a rear tail lift.

Large WAVs normally come in 3 roof heights. The lowest height is often not appropriate for carers moving around inside the vehicle, when aiding the wheelchair user(s). The semi-high or H2 roof is the best option. Please be aware though that some of these vehicles might be too high to access multi-storey and some gated outdoor car parks.

Some conversions of large WAVs offer a double-reel belt for the wheelchair user. Ideally, these should be avoided and instead, you should aim for a vehicle offering an upper mounting point for their seat-belts and the wheelchair tie-down systems can be fitted easily in better positions in the vehicle. This is normally a strengthened rail with a choice of pick-up points and is part of the conversion. Unfortunately, it cannot be fitted afterwards.

Once the ideal wheelchair positions are defined, depending on the size of the chairs, this will ascertain how many other seats it's possible to fit in around them.

So Why choose a WAV?

Pros

WAVs are a safe way for the carer or family member to assist the wheelchair user as there is less strain on their back. It allows the wheelchair user to travel in a more dignified way and without the need for a complicated and often risky transfer in and out of the car.

If it's pouring with rain and / or freezing cold, you want a quick and easy process of being transferred into a car or van. No matter how good you've become at transferring yourself or another from a wheelchair to a car or a van, a WAV is a valuable time saver, especially in poor weather. In addition, once you've got to your destination, you also save time as the wheelchair is set up and ready to go. It allows far more flexibility than using public transport.

Cons

Converting a standard vehicle to a disabled access vehicle is a hard but intriguing process. The standard vehicle, which started life having come off a production line goes to a specialist WAV convertor for the conversion. The convertor will have spent several months painstakingly designing and testing their own version of a WAV based on a particular 'base vehicle' such as; for example, the Peugeot Rifter.

The adapted vehicle will be built to set standards. It's worth noting that anyone can set up a vehicle converter with no barrier to entry. The main standard in the UK combines Vehicle Approval from the Department for Transport with PAS2012 accreditation, which is run by the Wheelchair Accessible Vehicle Converters Association. For more information, please see **www.wavca.co.uk**.

How / Who / When

The standards for converting a vehicle correctly are set high because it involves:

- reconstructing the structural rigidity;
- cutting through the original structure and removing large sections of floor area;
- moving or replacing the brake lines, fuel tank and exhaust - no mean feat!;
- fitting new tested seats in the rear for other passengers and ramp or tail-lift access; and
- fitting tested mounting points for the wheelchair security system.

There are around 10,000 to 11,000 WAVs built each year. These vehicles enter the market as Motability lease cars, private sales, wheelchair accessible taxis as well as vehicles built for the public sector and charities.

Although Motability accounts for the bulk of this market, the limitation of the Motability scheme is that you can't join if you're 64 years or older. Given that a lot of mobility issues and conditions begin later in life, this means a lot of people are left to fund their own vehicles without any help. Read on further below for your WAV options and the different ways to pay.

Choosing your options

The decision to buy your first accessible vehicle and the process of choosing it can be challenging. Whether due to budget, uncertainty or a determination to "make do" with a standard car, it can take several months to decide upon a WAV.

Don't be rushed into making a decision, there is plenty of choice and lots to consider. Remember that the vehicle should fit your current and future requirements and, if possible, it's better to invest a little more in a vehicle that does all you need than to compromise on a vehicle that you have to replace sooner than you anticipate. What may seem like a minor annoyance on a short test drive can soon become a bigger issue on a vehicle you use every day.

When enquiring about a WAV, the car advisor should be the one asking the bulk of the questions

For the right WAV recommendation, you need to speak to an experienced mobility vehicle advisor who obtains an understanding of the wheelchair user, their wheelchair, how you wish to travel and use of the vehicle. The advisor should be matching your specific requirements to what they have to offer. Don't be afraid to ask any questions yourself though, there's no such thing as a daft question when it comes to such as important decision.

Tell your mobility car advisor if you have other wheelchairs you might use or if you might be changing the wheelchair soon. Otherwise, there's a possibility your new wheelchair won't fit.

It's also worth thinking about who else might be travelling with you and if you need to take any other luggage or equipment such as a scooter with you. Your WAV will need to accommodate all of this.

Only choose a second-hand WAV from a specialist used WAV supplier. Unfortunately, many car dealers are trying to sell WAVs these days without full knowledge or experience of what they are.

Questions to consider

Essential questions to ask yourself before you buy a wheelchair accessible vehicle.

Size

Will it fit on your drive or in your garage? Think about the space required to use the ramp and / or lift.

Will it be easy to drive in traffic and on the roads you normally drive on?

Space

Is there room for all the people and luggage you want to carry?

What about times when you might want to carry a lot of luggage or equipment (like on holidays)?

Features

Does it have everything you need (such as air conditioning, automatic transmission, electric windows, Satnav, central locking, parking sensors, and other features you may want)?

Environment

What are the fuel consumption and CO_2 emission figures?

What particulate emissions standards does it meet?

Comfort and convenience

Can you get in and out easily?

Can you use the controls?

Is it quiet and smooth when you're driving?

Is there good visibility for everyone in the vehicle?

Getting in and out

Will you choose a ramp or a lift?

Will you have someone to help you?

Can you get in and out without hitting your head or having to duck?

Travelling position

Where will your wheelchair sit?

Will you be able to see out of the windows well enough?

Will you be able to talk to other people easily?

Money

What's the price? Are you eligible for the Motability scheme?

If you're buying it yourself, what's the resale value likely to be?

What will it cost you to insure?

What's the fuel consumption like?

Performance

Does it give you reasonable speed and acceleration?

What about braking, ride and handling?

More specifically, when choosing your WAV, think about the following. Most of these questions can only be answered by trying out the vehicle.

Is the WAV too noisy?

Safety and security.

What is the Euro NCAP rating?

Are there any special features?

How will you secure yourself and your wheelchair?

How will you secure any equipment you use to get in and out?

How will you secure anything else (such as an unattended wheelchair, luggage, equipment)?

Reliability

Can you rely on the equipment you use to get in and out?

What happens if it breaks down?

Are there manual overrides for any powered equipment?

Is there a suitable dealer nearby for servicing your WAV?

Build Quality and Safety

Different conversions have been built to different standards so some will be more comfortable and less noisy inside than others.

Noise can really affect your travelling comfort so be sure to check this out before buying.

Many adaptations involve moving the fuel tank and / or making it smaller. It may mean you can't go as far on one tank. Sometimes, it also affects the reliability of the fuel gauge. Ask your WAV converter about this.

Some helpful websites and links to the information that was used to create this booklet:

https://www.wavmob.co.uk/ultimate-guide-to-wavs.php

These websites give advice on funding or grants available:

https://www.turn2us.org.uk/Your-Situation/disabled-ill-or-injured

https://www.disability-grants.org

https://www.motability.co.uk/your-lease/wav

https://www.motability.co.uk/whats-available/wavs

These links are to local businesses that can help to provide a vehicle:

https://wheelchairaccessiblevehicles.co.uk

https://www.exploremobility.co.uk

https://www.wholesalecarcompany.co.uk

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Your views matter

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