



CHOOSING A CAR

Fact Sheet Number 7

When a person with a disability chooses a car, it is natural to look for all the features that any buyer would want: reliability, performance, comfort, appearance, and the cost of purchase and operation. In addition drivers with a disability also need to make sure that the car is one they can use taking into account their disability. They will need to ask themselves some basic questions before they start.

1. How much can they afford to pay?
2. Does the vehicle need manual or automatic transmission?
3. Does the vehicle need power assisted steering?
4. Do they want a two/three door or a four/five door vehicle?
5. Do they want a hatchback/saloon/estate?

Once these decisions have been made, there may be additional considerations including:

6. Ease of getting in and out of a vehicle and comfort of seating?
7. Ease of loading and stowing a wheelchair or other mobility aid if used?
8. Ease of operating the controls, including the secondary controls?

1. COST OF VEHICLE

When choosing a car, a person will generally have an upper limit as to what they can afford. They will also need to decide whether they are going to buy a new car or a secondhand one.

Other factors which can influence choice are running costs, such as fuel consumption, insurance rates and servicing frequency.

If a disabled person is going to use the Motability Contract Hire Scheme, this will include servicing, insurance and breakdown services.

2. MANUAL/AUTOMATIC TRANSMISSION

Generally it is easier for a disabled person to drive a car with automatic transmission, especially if the car needs to be adapted with hand controls to brake and accelerate, or if the person has any impairment of the upper limbs. Loss of function or amputation of one upper limb or severe impairment in both upper limbs may necessitate driving a car with automatic transmission.

3. POWER ASSISTED STEERING

Most people with a disability would benefit from driving with power assisted steering. It may be necessary for those with weak upper limbs or who are steering with one arm only to have power assisted steering. Those with more severe disabilities may need a lightened power assisted steering to enable them to turn the steering wheel, and this can be carried out by specialist firms.

4. NUMBER OF DOORS

The choice of whether to have a two/three door car or a four/five door car will probably depend on family requirements, but there are advantages and disadvantages depending on whether the disabled person has problems getting in and out of the car and whether equipment or a wheelchair needs to be stowed.

A two/three door vehicle will generally have wider doors making a larger aperture for entering and leaving the vehicle. This is particularly useful for people who have long or stiff legs, or who want to transfer from a wheelchair and stow it within the vehicle.

5. STYLE OF VEHICLE

The choice of whether to have a saloon car, a hatchback or an estate will again depend on personal preference, family needs and the circumstances of the disabled person. If a powered wheelchair is to be stowed, then an estate car or large hatchback will be needed. If a large amount of equipment has to be carried, or a folded wheelchair (sometimes two) then the size of the hatch or boot will be critical.

6. GETTING IN AND OUT

Many disabled people have problems getting in and out of a vehicle, the most common are listed below:

Getting In

- (a) Opening the car door.
- (b) Getting to the seat
- (c) Finding handholds and supports.
- (d) Getting feet over the sill.
- (e) Adjusting seat for comfortable driving.
- (f) Putting on the seat belt.
- (g) Closing the car door.
- (h) Stowing sticks, crutches, walking frames and wheelchairs.

Getting Out

- (a) Undoing seat belt.
- (b) Opening car door.
- (c) Adjusting seat if necessary.
- (d) Getting feet over the sill.

- (e) Finding handholds and supports.
- (f) Getting up from the seat or transferring to wheelchair.
- (g) Getting the mobility aid and/or wheelchair.

Many of these problems can be overcome by choosing the right car. Features that may help include:

- (i) Wide opening doors.
- (ii) Low sills in car and boot/hatch.
- (iii) Adjustable seating, especially seat height.
- (iv) Plenty of boot space.

There are many adaptations that can be fitted to the car or used by the disabled person to overcome the majority of the above problems. These include:

- (i) Key turners for helping to open door.
- (ii) Hand grips can be fitted inside the car.
- (iii) A leg lifter can be used to help lift leg over the sills.
- (iv) Extended seat runners can be fitted to allow the seat to be pushed further back to allow maximum leg clearance.
- (v) Swivel seats can be fitted for the driver or front passenger to allow easier access.
- (vi) An electrically operated seat height/forward/aft adjustment can be fitted.
- (vii) There are a variety of seat belt modifications, e.g. for releasing the tension, for reaching for the belt, for lowering the belt to make it more comfortable.
- (viii) Transfer boards can be used to enable the transfer between wheelchair and seat.
- (ix) Hoists can be used to lift people into and out of a car, and also for wheelchairs.

7. EASE OF LOADING AND STOWING WHEELCHAIR/MOBILITY AID

Many disabled people use a mobility aid such as a stick, crutches, a walking frame or a wheelchair.

Walking sticks and crutches are often stowed on the back seat, or alongside the front seat. Walking frames are sometimes quite bulky and it can be awkward to get them onto the back seat of a two-door car, although some types do fold up. If there is someone to help, then the frame can be put in the boot or rear hatch, or on the back seat of a four door car with little trouble.

Drivers who have no helper to rely on and have adequate dexterity usually stow their wheelchair behind the driving seat. Most four-door cars do not have the necessary clearance between the back of the seat and the central door-pillar, so a two-door car is usually required. Those who lack the necessary dexterity would have to consider fitting a mechanical stowage system. These include hoisting the wheelchair into the car or on to the roof electrically.

Some drivers prefer to transfer from the wheelchair onto the front passenger seat, and slide across onto the driving seat, dragging their wheelchair in after them. It is best to choose a car with minimal obstruction between the passenger and driver seat, although this can be difficult because centre consoles can be very bulky. Drivers using this method of entry would generally choose a two door car.

Drivers who are unable to transfer from their wheelchairs and who want to be independent, will need a vehicle which can be driven from the wheelchair. At the present time, there are only two or three suitable types of van that can be converted to be driven from a wheelchair.

Drivers who are able to walk a short distance and who use a manual wheelchair may be able to stow it in the boot/hatch themselves, sometimes with the help of a winch, or it can be carried on the bracket at the rear of a car. A standard size manual wheelchair would fit into the boot/hatch of most cars and in all estate models.

Drivers and passengers who use a powered wheelchair would need an estate car or large hatchback to stow the wheelchair and would usually need some sort of hoist unless they or a carer were able to dismantle the chair to load it.

8. EASE OF OPERATING THE CONTROLS

It is important for safety and comfort for a disabled person to be able to reach and easily use the driving and secondary controls of a vehicle.

Driving Controls

Problems involving the driving controls may be:

- (1) Not being able to use one or more of the foot pedals.
- (2) Not being able to turn the steering wheel fully.

These problems can be overcome by a variety of adaptations to the vehicle including :

- (a) A hand control to brake and accelerate for those unable to use their legs.
- (b) A hand control to activate the clutch (but generally it is easier to drive a car with automatic transmission).
- (c) A left foot accelerator pedal (in a car with automatic transmission) for those unable to use the right leg.
- (d) A steering ball, sometimes with infra-red box to activate secondary controls, for people needing to steer with one arm only.
- (e) Lightened power assisted steering for those with weakness in the arms.
- (f) Horizontal steering wheel with hand controlled electric brake and accelerator or two and four-way joysticks for those unable to use their legs and with limited movement and strength in the arms.

Many people find foot pedals are uncomfortable to use in relation to the size, height, and position of the pedals. This should be taken into account when choosing a vehicle. However, pedals can be extended, lengthened or re-sited if necessary.

Secondary Controls

The most common problems that disabled people have with secondary controls are:

- (1) Locating and turning the ignition key.
- (2) Putting the hand brake off and on.
- (3) Moving the gear selector.
- (4) Using the indicators, horn, wipers and lights.

Sometimes the problems can be overcome by choosing the right car, but adaptations are available to provide the necessary solution, including:

- (a) Fitting a key turner for those with limited finger dexterity or weakness in wrist. For those with a more severe disability, push button ignition can be fitted.
- (b) Fitting an easy button depressant on the hand brake when difficulty is experienced in taking the brake off, fitting a cantilever or cam handbrake for those who lack strength. An electric handbrake can be fitted for more severe disabilities.
- (c) Similarly, a gear selector in a car with automatic transmission can be adapted with a button or collar depressant or can be made to work electrically.
- (d) Extensions can be fitted to indicator switches, or an infra-red control box can be fitted to activate the indicators, horn, wipers and lights from the steering wheel.

MARCH 2008