



Choosing a powered (electric) wheelchair

DLF Factsheet

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Introduction

The aim of this factsheet is to provide some basic information and suggestions if you are considering buying or hiring a powered wheelchair. It will cover factors related to:

- your personal circumstances
- the various categories of powered wheelchairs
- the practical and legal requirements when owning a powered wheelchair
- safety factors and insurance
- a number of accessories that might be useful to you.

If you have very particular requirements you are advised to seek [professional assessment and advice](#).

Identifying your needs

For someone who requires a wheelchair all or much of the time, you should access a full seating assessment from an [occupational therapist](#) or [physiotherapist](#) skilled in this area of work. If you have specialist needs it is vital that you have a professional assessment in order to get the correct chair and seating. You can be referred to your local wheelchair service via your GP or another healthcare professional.

Even if you do not require a professional assessment, it is important to recognise what your requirements are, in order to get the right powered wheelchair to help you in your circumstances.

There are a number of factors about yourself to consider including:

- **Your mobility** – this is your ability to move around. It includes walking, sitting down and standing up, and adjusting or moving your body within the chair. Depending on your level of ability, you will need to consider how you will get in and out of the chair. Are you able to walk short distances? Are you able to stand up and sit down safely? Will you need to transfer, perhaps using a transfer board? Does the chair have removable armrests allowing you to do this? Are you usually hoisted? Will the chair enable your hoist to move close enough to the chair to enable this?
- **Your tolerance** – this is the length of time you can tolerate doing something, e.g. standing, walking or sitting.
- **Your balance** – this is your ability to remain steady, when standing or seated and especially when moving between the two.
- **Your posture** – this is the position in which you hold your body. When using a powered wheelchair, you need to be able to maintain a comfortable, stable, safe and supported seated position. You may need special cushions or support to provide comfort and help you to maintain your position.
- **Your body height and weight** – if you are a very tall or large person you will need to look for a wheelchair that is appropriate and safe for you. Measure and record your height and weight accurately and check manufacturers' details. A tall person will need a chair which can support longer legs, a longer spine and possibly bigger feet. It is important that your limbs and body are fully supported when in the chair. Your supplier may be able to advise you on a suitable chair, or seek advice from [Motability](#) (see [Useful organisations and resources](#) at the end of the factsheet). It is important for a large person to have a chair which is designed and made for their body weight and size so as to maintain the correct balance and stability in the chair, to prevent discomfort and pressure areas and to ensure the chair does not break.
- **Your skin condition** – is your skin on any potential pressure points intact and healthy? The relevant pressure points might be the bony prominences of your bottom and hips, the base of your spine and the back of your knees. Any areas upon which you lean without relieving the pressure has the potential to develop a pressure ulcer, such as your shoulder blades and elbows or forearms (Stockton and Flynn 2009). If you are going to spend significant time in the chair and if you find it difficult to relieve the pressure on these areas by shifting around, you must obtain suitable [pressure relief cushioning](#).
- **Your sight, perception, memory and cognitive ability** – if you are losing your visual, perceptual, memory or cognitive abilities, it is unlikely that a powered wheelchair is appropriate for you.

All of the above can be affected by many things including age, tiredness, a medical or physical condition and medicines.

Consider how all these factors will be affected by, and will affect, your use of the wheelchair.

If you have a condition which is deteriorating, you may wish to take account of your possible future needs at this earlier stage. You also need to take into account the needs of any person who will be helping you, including carrying out basic maintenance tasks, e.g. charging the batteries. Their level of ability and safety need to be considered.



Dementia

Dementia can affect a person in many ways, including memory, concentration, judgement, vision, planning or problem-solving. It is a progressive disorder and those affected may not have insight into their illness. You may not be able to make a realistic judgement about your ability to use a scooter safely.

Many people in the early stages of dementia can still travel independently in a powered wheelchair, if they are already familiar with using one. You should use familiar routes and carry relevant identity documents with you when alone, should you get lost. A GPS tracking system can be considered - more information about this can be read in DLF's [factsheet on safety](#). Introducing a powered wheelchair as a new item to someone who already has dementia should not be considered.

If they already using a powered chair, it can be difficult to decide when you should stop. Some indicators might be:

- becoming less confident or repeatedly confused about the controls
- repeatedly getting lost
- forgetting the purpose of the trip
- becoming less aware of safety precautions.

The guidance on when to give up driving a car can be useful and applied to the use of a powered wheelchair. If a person has early dementia, when sufficient skills are retained and progression is slow, driving may still be allowed, but subject to review.

When a person displays poor short-term memory, disorientation, lack of insight and judgement, they are likely to be considered unfit to drive (Driver & Vehicle Licensing Agency 2016, p76).

Your eyesight

It is important that you can see well enough to be able to judge distances, recognise obstacles and hazards, and be able to see pedestrians and other road users. If poor eyesight were taken as a contributory factor in an incident, it could make you liable for a compensation claim.

Vision can change with age and it is recommended that you have regular sight tests. You should have a minimum visual acuity of 6/24.

If you are eligible to be registered as severely sight impaired (blind), you should not drive a mobility vehicle as this would put yourself and others at risk. If you are eligible to be registered as sight impaired (partially sighted), you should speak to your optometrist or doctor (Adapted from Department of Transport 2015, p10)

Getting in and out of the chair

As mentioned above, your remaining level of mobility may dictate how you get in and out of the chair and which features you may need as part of the chair. If you can still walk short distances and can stand up and sit down, you will be able to manage getting in and out of the chair without assistance.

Many lightweight chairs have features such as flip-up armrests and a swivel seat to make transfers easier. Some chairs have a height adjustable seat or seat height options and removable armrests. This may be useful to you if you slide transfer, perhaps to and from a car or the bed.

Every chair will have footplates which either swivel or flip-up out of the way. It is important that you take the time to move the footplates out of the way before you get in or out of the chair. If not, they become a trip hazard or you run the risk of tipping the chair should you put your whole weight upon them.

If you require a hoist to be transferred in and out of the chair, you need to ensure that your hoist and the chair that you choose will work together. The base of the hoist will need to span the overall width of the chair, or be able to move underneath it, getting close enough to correctly position you into the seat.



Your mobility requirements

Consider where you want your powered wheelchair to take you:

- Do you want to use the chair indoors, outdoors or both?
- How far might you want to travel? Check the range of the chair.
- Will you be using the chair all day? Check the battery life of the chair.
- What is your local area like? Are there wide pavements? Will you have to go up and down kerbs? How does the chair cope with kerbs?
- Might you need to travel on the road? If yes, you will need a Class 3 category of chair (see below).

The answers to these questions will guide you in choosing what type of powered wheelchair is best for you. Your personal health requirements will guide you in the features you need to look for.



Choosing a wheelchair for your body shape and size

A wheelchair should add to your freedom and independence; it should enable your comfort and wellbeing, not limit your body movement or cause pain or pressure sores.

If your body shape allows, you want to preserve and support good posture by:

- keeping your head, neck and spine aligned
- keeping your pelvis, hips and knees aligned
- choosing suitable support cushioning.

Avoid creating pressure points or limiting your movement within the chair by:

- ensuring that the chair seat, back and shoulder rests are the right size for you
- allowing for some space either side of your bottom and thighs
- avoiding the use of lumpy cushions or wearing any bulky clothes which create pressure points when you are seated in the chair
- choosing an appropriate pressure relieving cushion.

A wheelchair is a bulky object and can be longer than it is wide. A powered chair also carries batteries which add significantly to its weight and possibly its dimensions. It is designed to be as safe and balanced as possible, especially when moving over uneven or sloped surfaces.

It may also be designed to accommodate a person's individual body size, shape or requirements - e.g. when a person loses a lower limb, their centre of balance changes, even when seated. This means the balance of the chair has to be adjusted to prevent it tipping. If you have significant personal requirements in terms of your body size, shape or mobility you are advised to seek professional assessment and advice.

Measuring for your chair

You should not be 'squeezed' into the chair, but have enough space to move within the seat, to rotate your upper body if possible and move your arms. Yet you also need to be supported, especially if you find maintaining your posture tiring and difficult.

You will need help to gain accurate measurements of yourself. Make sure you are seated comfortably and well-supported, with your back as straight as possible and with your hips at 90 degrees (a right angle) and your feet flat on the floor. Wear your normal clothing and shoes. If you have complex seating needs, you may have to adapt these measurements, but you are then advised to seek professional advice.

Measure and record these distances (in centimetres). You may not use all of them, depending on the level of support you require from your chair:

(a) Seat width (not the overall width of the chair) – the distance between the widest part of your hips or thighs, plus 2cm either side. The seat/backrest width should give you enough room for winter-weight clothing, but not be so big that it causes you to lean sideways to find support. This is particularly important if you have poor upper body strength and control. So if, when seated, the widest part of your bottom or hips measured 42cm across, you should be looking for a chair seat with a width of approximately 46cm (18").

(b) Seat depth - the distance between the back of your bottom to the back of your knee, minus 2cm. If you have a discrepancy in your leg length, take the measurement from the shorter leg. So if, when seated, the distance between the back of your bottom and the back of your knee is 46cm, you should be looking for a chair seat with a depth of 44cm at most (17.5"). If you choose a larger depth it will cut into the back of your knee.

(c) Arm rest height – the distance between the seat and your elbow when bent at an approximate right angle (as if resting on the chair arm). Make sure you are not leaning to one side.

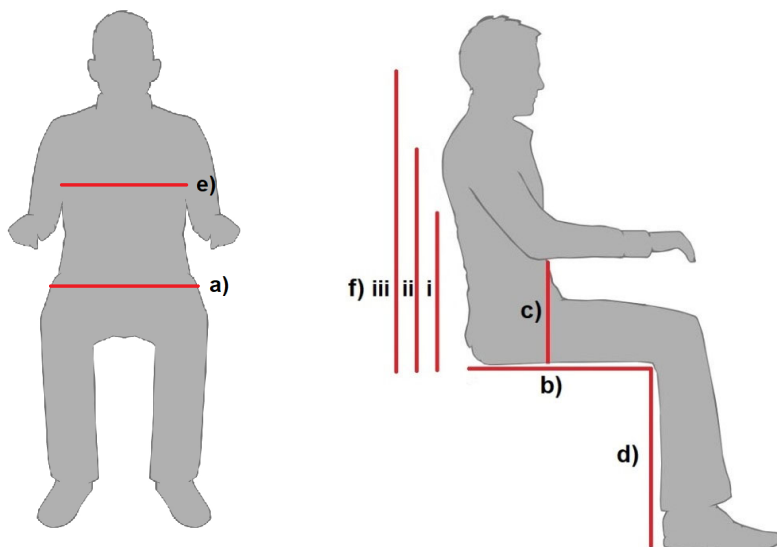
(d) Lower leg length and seat height - the vertical distance between the back of the knee to the heel of the shoe. This gives the distance from the wheelchair seat to the footplates. Add 4cm to give the total seat height from floor to seat.

(e) Back width - the widest distance across the back, just below the armpit. If your back is very much broader than your hips/thighs and you need back support at a higher level, you may have to consider having a wider chair, or a more specialist back rest.

(f) Back rest height – this will depend on how much support is required. For people with good body strength, a shorter back rest will be necessary. Take the following measurement according to the level of

support you require:

- i. The vertical distance between the seat surface to bottom of the scapula (shoulder blade), if you are able to sit comfortably with minimal back support.
- ii. The vertical distance between the seat surface and the top of the shoulder, if you need support all the way up your spine.
- iii. The vertical distance between the seat surface to the bump on the back of the head, if you require head support also.



Powered wheelchairs

Powered wheelchairs are divided into a number of categories. Some are designed for use indoors only and are portable enough to fit in the boot of a car. Others are for outdoor use only - these are generally larger and heavier. Some are designed for both indoor and outdoor use.

All powered wheelchairs and scooters are classified as 'invalid carriages' by the Department for Transport and are categorised as either:

- **Class 2 products** which can only be used on the pavement (except where there is no pavement) and have a maximum speed of 4mph. Service users aged under 14 are restricted to Class 2 products only.
- or **Class 3 products** which must be registered with the [Driver Vehicle Licensing Authority \(DVLA\)](#) (more advice is available from your local Motability dealer). These chairs can travel up to 8mph on the road, although must only be driven at 4mph on pavements. When driven on the road, they must obey all requirements and regulations as other road users.

The differences in weight and power (and thereby speed) of the two enable them to access different environments, but also have different legal requirements for the driver.

Class 2:

- are generally smaller, lighter and less powerful
- can be designed for indoor and/or outdoor use. If for indoor use, they will have limited outdoor use and less distance range
- some can be dismantled or folded for transporting
- cannot be used on the road (except where there is no pavement or to cross the road)
- outdoor models have the ability to climb kerbs
- have a top speed of 4mph (6.44 km/hour)
- do not need to be registered with the DVLA.



Class 3:

- are generally bigger, heavier and more powerful
- are not for indoor use
- can be used on the road
- have a longer distance range
- cannot be dismantled
- have a number of additional safety requirements to allow road use
- have a top speed of 4mph (6.44 km/hour) off the road and 8mph (12.9 km/hour) on the road
- must be registered with the DVLA
- the user must be aged at least 14 years.



Class 3 vehicles are not allowed on motorways, bicycle tracks or bus/cycle lanes, but are legally allowed on dual carriageways.

Registering a Class 3 wheelchair (invalid carriage)

You don't have to pay vehicle tax for any mobility scooter or powered wheelchair, but you do need to register Class 3 mobility scooters.

To register a Class 3 mobility scooter you need to complete form V55/4 for new vehicles or V55/5 for used vehicles. You can [download the form](#) or obtain one from the Driver and Vehicle Licensing Agency (DVLA).

You will need to send the completed forms and evidence of the vehicle's age (if available) to: DVLA Swansea, SA99 1BE.

More information is available on the [Government website](#).

Insurance

You do not have to have insurance for your wheelchair, but it is highly recommended that you do. Third party insurance will cover you for other people making a claim against you if you are involved in an accident or cause some damage. Other policies will also insure against injuries to yourself and loss or damage of your scooter.

- The **Motability Scheme** provides [insurance cover](#) on all their products
- The **Rica website** lists a number of [companies offering insurance](#)

[View DLF's impartial list of insurance for powered wheelchairs](#) ►

The Highway Code

Part of the Highway Code (Department for Transport 2016) provides [rules for powered wheelchairs and mobility scooters](#) on the Government website.

Training and safety

Powered mobility devices have many benefits for users, but also create the risk of accidents resulting in injuries (Edwards and McCluskey 2010). It has been demonstrated that training to improve driving skills and awareness when using scooters is beneficial in reducing the likelihood of accidents (Toosizadeh et al, 2014). It could be assumed this would be the same for powered wheelchair users.

Some commercial providers will offer training. You are advised to look at the level of training available. Training should cover, as a minimum:

- operating and controlling the wheelchair
- manoeuvrability
- safety and awareness
- the law and the Highway Code for powered wheelchairs

Mobility Centres offer assessments, advice and guidance around the safe use of powered chairs. They may also be able to advise you of other organisations which can provide training close to you. You can find your nearest centre here: www.drivingmobility.org.uk/find-a-centre/

Powered wheelchairs for children

It is important that your child receives a full formal seating and wheelchair assessment to ensure that they receive the most suitable chair to meet their needs. As with an adult, the child's health and level of ability must be considered before obtaining a powered chair.

In order to be safe in a powered chair, your child will need to be able to:

- understand the meaning of 'stop' and 'go'
- follow simple instructions and respond to commands such as 'slow down' or 'let's go faster'
- pay attention to tasks without losing concentration
- react in a timely manner
- plan what they want to do.

Your child will also require:

- arm and hand control or competence in switch use
- visual skills and adequate hearing
- motivation, attentiveness and persistence
- cause and effect association (e.g. knowing that pushing joystick engages wheelchair in motion).



Training and safety for children

Children who receive a wheelchair from the NHS wheelchair service will receive basic training in the safe

use of the wheelchair. Further training is recommended though, to allow children to reach their full potential with wheelchair skills. This is currently provided free of charge by:

- **Go Kids Go** (formerly the Association of Wheelchair Children) who run free courses to equip young wheelchair users with the skills to become independently mobile so that they can enjoy the same activities as their able bodied peers. Further information is available on their [website](#)
- **Whizz Kidz**, whose training programme has been designed to ensure that disabled children and young people get the most out of their wheelchairs, teaching techniques that build confidence and develop skills. Further information is available on their [website](#).



Practical considerations

Storage

Your powered wheelchair will need to be stored in a secure, dry place, with access to a power source for battery charging. You need to ensure that it is not a trip hazard or a fire hazard (by blocking escape routes) for yourself or anyone else whilst it is stored.

If you need to store your chair outside, you are advised to get a waterproof cover for it or to use a storage shed. Consider the need for level or ramped access to the storage and accessibility to a power socket for charging the chair batteries.

If you live in a communal property, such as a council or housing association flat, sheltered housing or a care home, you must seek advice and permission from the landlord/organisation in relation to storing and charging your chair. There are usually strict rules preventing the storage and charging of chairs and scooters in communal areas. They are not usually allowed to be stored in corridors or stairwells as they could cause an obstruction or be a trip hazard.

You may have space for a powered chair in your personal flat/room, or there may be an allocated room/space for storage. In any situation check that it is not a hazard to yourself or any other person.

If you live in rented communal accommodation, it is likely that you will be required to have an annual PAT (portable appliance test) to ensure that the chair and charging equipment are in a fit state to be used.



[View DLF's impartial list of storage covers for powered wheelchairs ►](#)

Batteries

All powered wheelchair batteries are 12 volt and are usually fitted in pairs giving a 24 volt output. It is recommended that you replace both at the same time when required.

There are three main types of battery:

- lead acid
- gel cell
- AGM.

Check with your manufacturer or supplier which type of battery your chair has and how best to charge and maintain it. Ensure you are provided with the manufacturer's instructions, especially if you are purchasing a second hand mobility scooter. If you have an NHS chair, you will be advised on battery care.

The batteries will need replacing after 12 to 18 months depending on their type and use. Always ensure that new batteries are suitable for your chair in terms of type, size and weight. Your supplier or your local council will be able to advise you how to dispose of old batteries.

If you can store your wheelchair close to a power socket it makes charging easier. They will need to be charged using an ordinary electric socket. Although some chairs will allow you to remove the batteries and charge them elsewhere. Batteries can be heavy, so consider who will lift and carry them if required.

Establish a regular charging routine. How often you need to charge the batteries will depend on how frequently and how much you use the chair. It will also depend upon the terrain you drive over, the weight your chair is carrying, the age of the batteries etc. If you use it daily, then overnight charging will be



required. If you use the chair less often, weekly charging may be sufficient. Charge the battery regularly, even if you do not use the chair for an extended period of time. Avoid letting the batteries run completely flat and always fully charge them. Always use the proper charging cable.

[View DLF's impartial list of batteries for powered wheelchairs ►](#)

Servicing and maintaining your powered wheelchair

If you have an NHS chair, it will normally be fully maintained and repaired through the wheelchair service.

There are a number of things that you can do to maintain your chair:

- **Keep it dry.** If you store it outside, get a waterproof storage cover for it
- **Keep it clean.** Wash or wipe off any significant amounts of mud or dirt. Try to avoid driving over really wet, dirty or gritty areas.
- **Check the tyres.** If your chair has pneumatic tyres, ensure these are kept at optimal pressure (check the manufacturer's advice). Check the tyres for wear and tear. At some point they may need replacing.
- **Check the lights.** If you have a road-going chair, your lights must be in working order.

A regular service will ensure that your wheelchair is safe, both for you and for those around you, especially if you use your chair on the road. It will also keep it in good working order for longer.

It is advised that you get your chair serviced every 12 months as a minimum, more often if it gets heavy usage. Check the manufacturer's instructions. Your supplier will also be able to advise you on this.

Getting your chair into a car

Some of the lighter wheelchairs are able to fit into a car, enabling you to take it with you when you travel. Your chair may have a fold down backrest or removable footrests etc. The chairs are heavy to lift, so there are a range of options for getting them into a vehicle, including ramps, lifts and hoists.

Rica have produced some information on [getting a wheelchair into a car](#).

Tyres

When considering which chair to buy, look at the tyres used on the various models.

Larger tyres tend to give a more comfortable ride as they cope better with lumps and bumps. Tyres for powered wheelchairs may be pneumatic (with an inner tube filled with air) or puncture-free (with solid or foam inserts). Pneumatic tyres tend to give more comfort and weigh less, but will puncture. Solid, puncture-free tyres are increasingly provided.

If you were to get a puncture, is this something you or your carer could cope with?

The tyres will need replacing when they wear down or if damaged.

Heavy duty tyres are available.

[View DLF's impartial list of tyres for powered wheelchairs ►](#)

Controls

There are numerous control systems for wheelchairs. The one you need will be dependent on the amount of movement, strength and control you have. NHS wheelchair services will provide the control system that you require based on the assessment of your abilities and needs. Most systems have a separate power button on the control unit and adjustable sensitivity.

- The most common control system is a **joy stick** mounted on one of the armrests. This requires you to have reasonable arm control, grip and strength to manage, but gives you optimum manoeuvrability. Mini or compact joysticks require less movement and force from the user. There are a variety of options in the grip design of the actual joystick and it does not have to be controlled with the hand, for example, the joystick could be set up to be controlled by the chin. It is worth trying different options if you have difficulty gripping things. For a child it is possible to use hand-held game controllers.
- **Finger control systems** consist of a small box with a hole in the top for your finger. They work in a similar way to a joystick, but you move your finger in the direction you wish to move.
- **Touchpads**, like touch-sensitive computer screens, use touch or movement across the screen (not pressure) to initiate travel. These may be suitable for someone with very poor grip or strength, but not for a person with a significant tremor.
- **Switches** can be used in a variety of ways and positioned close to the hand or head. Some use touch,



others proximity. By activating particular switches, the chosen direction of travel is selected.

- Other systems are more specialist, such as **sip and puff controls** for those who have no function in their body. The user sucks and blows through a mouthpiece. The difference between suck and blow and the difference in the strength of the suck or blow can be used to control the chair.
- The joysticks and finger control systems are proportional - the more you move the joystick/your finger, the faster the wheelchair moves. Other systems, like switches, are not. The propulsion stops when the pressure is released from the switch.

Footrests

The footrests on a powered chair should be used at all times when in the chair, but should be moved out of the way when transferring in and out of the chair.

Footplates may be in pairs, which usually swivel to the side and flip up out of the way, or there may be one single plate which flips up against the chair.

Your feet should not 'dangle' but be supported by the footplates, preventing all the weight of your legs being carried on the back of your thighs. The footrests should not be so high that all your weight is tipped backwards through your bottom and the base of your spine. You are aiming to keep your hips and knees at right angles, spreading the weight of your lower body equally across all the body surfaces which touch the chair.

The footrests should be at least 4cm clear of the ground.

Elevating leg rests

Elevating leg rests support the lower leg in a raised position. The leg rest is supplied in place of a footrest. Care should be taken when mobilising or pushing a wheelchair with the user's legs raised, as it can make the legs and feet quite vulnerable to being knocked.

Armrests

Most wheelchairs can accommodate a choice of armrest designs. They can be full length or desk style (shorter). They may be height adjustable. Some are detachable, fold up and down or swing away.

If you have good torso strength and stability, you may prefer to have less support and use shorter armrests. This can give more freedom of movement in the upper body and arms. It also means you can move the wheelchair closer in to tables and desks. If you have less upper body stability, you are better getting good support from the armrests.

The arms rests should support your forearms without the need for you to hunch your shoulders or lean to the side. They should be padded, so not causing pressure points along your forearms.

Consider how you will be getting in and out of the chair. Will you need a full-length armrest to support yourself as you sit into the chair or up from the chair? Do you need removable or movable armrests if you transfer sideways in/out of the chair?

Look at the manufacturer's website or ask the supplier for information on what options are available.

Wheel drive

Like a car, a powered wheelchair can have front- or rear-wheel drive. There are also centre and mid-wheel drive options.

- **Front-wheel drive chairs** in effect pull the chair over the ground. They are very stable, but can be difficult to steer. Over steering can cause the rear of the chair to spin round at higher speeds
- **Mid-wheel and centre-wheel drive chairs** are very manoeuvrable as the chair is almost turning on its axis
- **Rear wheel drive chairs**, the most common, tend to have more power and thereby more speed. They are also very stable.

Converting a manual chair to a powered chair

It is possible to obtain a power pack which attaches to a manual chair, in effect adding a motor.

They are fitted very easily and offer a full conversion to a powered chair with a joystick, or giving a level of assistance, which takes some of the strain out of manually driving a chair, or for the carer pushing. You can still choose to manually drive your chair for periods, even when they are fitted.

Most manual chairs can be fitted with a powerpack.



Depending on the drive mechanism, some units required particular wheels to be fitted to your chair and some require an anti-tipping mechanism adding.

Cushioning and support when seated

Most standard powered wheelchairs will come with a padded seat or a basic seat cushion. If you are using your chair much of the day, this may not offer enough pressure relief, even for someone who has good skin condition. You are advised to consider obtaining a cushion which offers an element of pressure relief. Look at the manufacturer's information or ask your dealer.

When you are seated in the chair, aim to keep your body as aligned as possible and not leaning to one side.

Moulded cushions can help to maintain the hips and pelvis in good alignment. You can obtain chair inserts and cushioning which offer support at particular points if required. If you struggle to maintain an upright posture, you may benefit from support around your torso. Look for a backrest or cushion which is shaped, curving around your back and slightly under your arms at the back.

There are a range of cushions, backrests and mouldable supports that fit into a wheelchair leaving the existing seat and backrest in place. If you need active support, look for an insert that is more rigid, although it will need a soft outer covering. If you just want comfort, look for a soft padded insert or cushion.



It may help you to maintain an upright posture if you have a belt or harness, which also adds an element of safety. You can have a lap strap, or hip belt, as you would wear in an aeroplane, or a higher strap across your tummy. These can be padded for extra comfort. More support can be given by a chest harness which secures you around your torso and over your shoulders. You can also add a crotch strap. You are advised to seek professional advice before you use a full harness, as they can create pressure points and distort a person's posture if poorly fitted.

It is important to remember that straps and harnesses should not be used for the sole purpose of restricting a person's freedom when they lack capacity to understand or make choices. Harnesses can be used to restrain a person when the purpose is to prevent them harming themselves (Social Care Institute for Excellence, 2014).

If you have complex positioning needs, seek the advice of a seating specialist.

[View DLF's impartial list of comfort and positioning inserts for children ►](#)

[View DLF's impartial list of wheelchair cushions for children ►](#)

Portable ramps

You may need ramps to be able to enter or leave your home when on your wheelchair. You can choose whether to create a permanent ramp or to use portable ones.

Ensure that the ramps can bridge the change in levels adequately, without creating too steep a slope and check the weight capacity of the ramps. Check that the ramps can accommodate the width of your wheelchair and the combined weight of the wheelchair and your body.

As a general rule most ramp manufacturers recommend a gradient no steeper than 1:12 for independent use and 1:10 for assisted use. A simple calculation for finding out the right ramp length is to multiple the height by the ratio, i.e. if working on a 1:12 ratio multiply the height of step by 12 to give you the minimum length of ramp, e.g. 6" step x 12 = 72" (6ft ramp).



Reclining and tilt in space powered wheelchairs

Powered wheelchairs are available which have the ability to recline or tilt in space. These would help someone who has weak upper body strength or experiences back and/or hip pain and needs to rest. These are two separate movement mechanisms. The reclining chairs have a back which reclines, but the seat remains static. Elevating leg rests may be required to make this a comfortable option. Tilt in space chairs tilt the back and seat backwards as one unit, keeping the same angle at the hips, knees and ankles.

When either of these mechanisms is used, the chair becomes very long and not very manoeuvrable. Consider what space will be required when used inside. Look to see how these mechanisms are operated. Can they be used by the person in the wheelchair, or will help be required? Can they be operated when

the user is in the chair?



Elevating seats and sit to stand mechanisms

Powered wheelchairs with elevating seats and sit to stand mechanisms are also available. Again, these are aimed at people who are full-time wheelchair users.

Wheelchairs with an elevating seat have a battery operated, pneumatic or gas lift mechanism, operated from the wheelchair controls. This raises and lowers the level of the seat without changing the user's posture, enabling the user to access higher levels or be at eye level with able-bodied people. Care must be taken to ensure that the user's feet or footrests do not become trapped under furniture as the seat rises up. Some models can be driven at a reduced speed with the seat fully elevated.

Sit to stand mechanisms offer the same benefits but also enable the user to change the angle of their spine, hips and knees - relieving pressure, counteracting joint and muscle stiffness and other health advantages. The person must be held safely within the chair. There is usually a supporting harness and pads around the trunk and knees, which are worn all the time. The stand up mechanism is usually operated by the user from the controls and involves the seat and backrest flattening out to bring the person up to vertical. It is recommended that medical advice is sought before trying one out if the person has not stood for a long time.



All terrain wheelchairs and powered sports chairs

All terrain wheelchairs are specifically designed to offer stability, power and comfort in an off-road situation. They generally have more battery and motor power with greater torque strength to power the chair over rough or sloping surfaces. They also have inbuilt suspension. The chairs may be rear, mid or four wheel drive, with chunky high grip tyres for traction. Some chairs come with the option of tilt in space or standing functions.

There are a limited number of powered chairs specifically designed for sport. As with all terrain chairs, they provide power and stability, but may have additional features, such as leg guards/bumpers for football, or all terrain chairs combined with a standing mechanism to enable golf.



Accessories

Walking stick or crutch holders

Clips are widely available to hold walking sticks, crutches etc. Most combine a clip with a cup to hold the base of the stick or crutch. They attach to wheelchairs with a variety of fastenings including screw clamps or hook and loop Velcro. Some are fitted behind the chair, others to the side. Consider the most appropriate fitting for your chair and your ability to reach to guide your choice. Ensure that the clip element of the holder is big enough for your stick or crutch.

Drinks holder

There are a range of cup, bottle and drink holders available. These attach on to the frame of the wheelchair and allow you to carry a drink around with you.

Wheelchair umbrella

A wheelchair umbrella clamps to the wheelchair frame and has a flexible handle to enable positioning. Clamps are also available into which a standard umbrella can be fixed.

Bags

There are a range of bags available specifically designed to attach to a wheelchair. Most attach to the back

of the chair, but others fit to one side, as pannier bags, or under the seat. Consider the design of your chair and your ability to reach the bag when seated in the chair.

A number of other specific bags and holders are also available, such as ones for carrying mobile phones, wallets or oxygen cylinders.

Wheelchair outdoor clothing

Wraps, capes, ponchos and macs - When you are sat in a wheelchair, it is easier to put on or take off and wear an outer layer which is loose fitting. Wraps, capes and ponchos are easy to slip around or over your head. The looser fit across the shoulders and upper arms is more comfortable as you self-propel your chair.



[View DLF's impartial list of bags for powered wheelchairs ►](#)

Large capes and ponchos are available in waterproof fabric, acting like a mac in wet weather. They can be large enough to cover both you and the chair.

Leg cosy - A leg cosy or zipped sitting bag keeps your legs warm and protected from wet or windy weather. These are designed to be used instead of having a blanket over your legs, as blankets can get caught up in the wheels of your wheelchair.



Controls and joystick covers

Waterproof covers are available which keep your hands and the wheelchair controls dry in wet weather. Fitted to the armrest, they are usually made of transparent plastic, or have a transparent section to enable you to see the controls.



Tables, trays and stands

Wheelchair tables and trays come in a variety of sizes and designs. Some fit across the whole lap space, attaching to both sides of the chair. Others are a half-lap size, fitted to one side, which flip over to be used/stored at the side.

Most people would need assistance in fitting a full width wheelchair tray once in the chair. A half-lap size can usually stay in situ, flipped over and stored down the side of the chair

Most trays have a smooth wipe-clean surface with a raised edge. Some are moulded or have a cut-out circle to accommodate a cup or mug. An increasing number are made of see-through polycarbonate, which enables the user to see what's in front at floor level. Padded trays are also available.

Small stands are available which clamp to one side of the wheelchair frame. With a flexible arm, these can hold books or a tablet.

Charging port

It is possible to request the installation of a phone/laptop charging port on some models of powered chair, allowing you to easily charge your phone, MP3 player or tablet whilst on the move. Discuss this with the manufacturer or supplier if it is something you need.

[View DLF's impartial list of wheelchair clothing for adults ►](#)

[View DLF's impartial list of wheelchair clothing for children ►](#)

Provision of wheelchairs

Statutory provision

Wheelchair services are funded through the NHS, although they may be sub-contracted to a local company.

You will need a referral from your GP or another healthcare professional who can identify your current level of mobility and the need for a chair. Each locality may be different with its own eligibility criteria and waiting times. They will only provide chairs to people with long-term (more than six months) mobility and associated postural management needs. The chairs are provided as an aid to mobility and independence. Chairs for rehabilitation, sporting or other purposes are not provided. You are advised to contact your local wheelchair service to clarify their criteria for provision and their waiting time.

Once referred you should be assessed, usually by an [occupational therapist](#) or [physiotherapist](#). Most NHS wheelchair services will not offer a powered wheelchair if you can walk short distances, but this may depend upon certain circumstances, such as if you have variability in your condition. They are unlikely to provide a powered chair if you can independently use a manual wheelchair. They also may not provide powered wheelchairs for purely outside use, i.e. if you can walk whilst inside. You are advised to contact your local wheelchair service to clarify their criteria for provision.

If your mobility or postural management needs require a very specific chair, you may also be seen by a

mobility engineer who can custom-build a chair according to your requirements.

The professional carrying out the assessment should consider your home or any other environment which you will need to access in the chair, your work for example. They may arrange an assessment visit to ensure the chair can access all the necessary areas and that you have suitable storage/charging facilities as necessary.

Following the assessment, the statutory wheelchair service will usually offer the provision of a wheelchair in one of the following ways:

- a wheelchair supplied to meet the needs identified by the assessment, fully funded by the service and fully maintained and repaired by the service
- a voucher to the value of the appropriate wheelchair, allowing you to top-up and purchase a wheelchair in line with your preferences from a limited menu of options which are additional to the assessed need. The wheelchair is owned, maintained and repaired by the service and will be purchased by the service
- a voucher for the amount of the appropriate wheelchair plus contribution toward repair and maintenance, allowing you to top-up and purchase a wheelchair in line with your preferences which are additional to the assessed need. The wheelchair is purchased, owned, maintained and repaired by you. The wheelchair service will usually advise on reputable wheelchair suppliers
- Some areas allow the voucher to be used to rent a wheelchair on a long-term basis. This includes insurance, maintenance and repairs.

Some areas are trialling a personal wheelchair budget, which would replace the voucher scheme. The intention is to give people who use NHS wheelchair service greater choice and control. The budget can be used to buy a chair from within the NHS range that is available locally, or they can add to the budget to enhance what is available from the NHS, or to buy privately.

If a wheelchair is agreed and provided by the service, they will also provide accessories based on the assessment of your needs, training in the use and care of the chair and a repair and maintenance contract. The repair and maintenance is usually provided by a local mobility engineering company.

If you, or the person you care for, are in receipt of continuing care funding, you are unlikely to have a chair funded through the wheelchair service, although they may provide the assessment.

Private purchase

You may want an assessment from a private or independent occupational therapist. The Royal College of Occupational Therapists has a [list of available practitioners](#) which you can access online.

There are numerous wheelchair retail companies. Your local NHS wheelchair service may be able to make some recommendations. Some suppliers will offer an assessment of your needs. Be certain of your preferences and requirements before you look at any wheelchairs, so that you are not encouraged or tempted to buy something which will not actually meet your needs. You are advised to try a number of models before you purchase. Remember your environmental needs and your carer's needs also. Where will the chair need to access? Where will you store and recharge it when not in use? Ask the supplier about ongoing maintenance, repair and insurance.

Many retailers are members of the British Healthcare Trades Association (BHTA), which means that they adhere to the organisation's code of practice. You can search the [BHTA website](#) for local retailers.

Equipment Demonstration Centres

If you need advice before you buy, contact your [local equipment demonstration centre](#) where you would have the opportunity to try out a range of equipment. There are several of these around the country where you can go for impartial advice. Your local authority will also be able to supply information about your nearest centre is located.

VAT relief

If you have a diagnosed long term condition, you should be able to claim VAT relief when purchasing a wheelchair. Ask the supplying company or check their website for further information. More information is available on the [GOV.UK website](#).

British Standards

Electrically powered wheelchairs, scooters and their chargers are covered by British Standard BS EN 12184:2014, Electrically powered wheelchairs, scooters and their chargers. Requirements and test methods (British Standard Institution 2014).

Motability

The Motability Scheme provides a way for people with disabilities to lease a car, scooter or powered wheelchair in exchange for their mobility allowance. To be eligible to join the [Motability Scheme](#), you need to receive one of the following mobility allowances and you must have at least 12 months' award length remaining.

Please note that the Attendance Allowance cannot be used to lease a vehicle through the Scheme.

- Higher Rate Mobility Component of Disability Living Allowance (HRMC DLA)
- Enhanced Rate Mobility Component of Personal Independence Payment (ERMC PIP)
- War Pensioners' Mobility Supplement (WPMS)
- Armed Forces Independence Payment (AFIP)

More information is available at: www.motability.co.uk/about-the-scheme/who-can-join/

Access to Work

Access to Work provides grants for practical assistance if you have a disability, health or mental health condition, in order to help you gain employment, stay in employment, or even become self-employed. Access to Work may provide funding for a wheelchair if it is required for the purposes of your work and there is no more cost-effective alternative. If you meet the criteria to get a chair from your local wheelchair service, Access to Work may not provide funding. You will need to contact your local [Jobcentre Plus](#).

More information is available at [//www.gov.uk/access-to-work/overview](https://www.gov.uk/access-to-work/overview).

Charity funding

There are a number of trusts and charities that will consider funding wheelchairs. Disability Grants' [website](#) list charities and Trusts that provide funding towards disability equipment. Alternatively, charities that may fund wheelchairs can also be found under [Useful organisations and resources](#) at the end of this factsheet.

Second hand equipment

There is a large market in second hand mobility equipment, including schemes run by commercial suppliers. There is some advantage to using a recognised company as most offer powered wheelchairs which have been serviced or reconditioned and have a short warranty or service agreement.

If you are buying a second hand chair from a private individual, ensure you are given the accompanying literature, an instruction manual and any service history. Look at the general condition of the chair. Look at all fixtures and fittings to ensure that they are present and secure. Check the tyres are in good condition. All seating stitching should also be in good condition.

Hiring a powered wheelchair

A limited number of organizations will loan a powered wheelchair on a short-term basis - e.g. for a holiday or to try before you buy. There are also companies who offer long-term hire as an alternative to buying a chair. The hire agreement usually covers insurance, service cover and parts replacement. There is generally a delivery cost and a deposit required.

It is important that you know your requirements before you hire a chair, especially your weight and body size. Perhaps the most important dimension is the width across the widest part of your hips or bottom, as this will determine the most appropriate wheelchair seat size. Most companies offer a range of sizes, including children's chairs and bariatric chairs (for heavier people). Larger companies offer chairs with elevating leg rests and tilt in space mechanisms.

More information is under [Useful organisations and information](#) at the end of this factsheet.

Shopmobility

Shopmobility is a service that helps all people who consider themselves to have mobility problems (whether through disability, illness or injury) to continue to get around city and town centres independently. It offers a range of mobility and other equipment for short-term hire, including powered wheelchairs.

More information is available at www.shopmobility.org.uk.

For further advice from us

For clear, practical advice and information on **products and suppliers of daily living equipment**, please have a look at our [Living made easy website](#).

If you would like further advice related to **choosing equipment for everyday living** you could try relevant sections of [AskSARA](#), our free online guided advice tool. AskSARA will ask you questions about yourself and your environment and then offer relevant advice, product suggestions and supplier details.

You can contact **the DLF Helpline**, which is open Monday to Friday from 10am to 4pm. Tel: 0300 999 0004 (calls charged at your standard land line rate even if you are phoning from a mobile).

Alternatively, you may wish to **contact us** via email: info@dlf.org.uk or by letter: DLF, 34 Chatfield Road, Wandsworth, London SW11 3SE.

To help us give you a concise and informative reply, please provide us with as much detail as possible, including information on the difficulties you are having and any solutions you have considered, such as equipment ideas.

Another source of advice is a [disabled or independent living centre](#) where you would have the opportunity to **try out a range of equipment**. There are several of these around the country where you can go for impartial advice. Your local authority will also be able to give you details of centres in your area.

Useful organisations and resources



AbleThrive

Email via the website: www.ablethrive.com/contact

Website: www.ablethrive.com

An online resource of videos demonstrating a range of wheelchair transfers. Read AbleThrive's article about Wheelchair transfers: www.ablethrive.com/life-skills/transfers



British Healthcare Trades Association (BHTA)

Suite 4.06 The Loom,

14 Gowers Walk

London E1 8PY

Tel: 020 7702 2141

Email: info@bhta.com

Website: www.bhta.com

The BHTA is the largest trade association for suppliers and manufactures of mobility and homecare products, including adjustable beds. They have a code of practice to which their members sign up to. Contact the BHTA to obtain a list of members in your area.



Driving Mobility

Tel: 01872 672520

Email: info@drivingmobility.org.uk

Website: www.drivingmobility.org.uk/

A network of 16 independent organisations covering England, Scotland, Wales and Northern Ireland, which offer professional, high quality information, advice and assessment to people who need to gain or retain independence through mobility.



Go Kids Go

90 Wilbert Lane

Beverley

East Yorkshire, HU17 0AL

Tel: 01482 887163

Email: roy@go-kids-go.org.uk

Website: www.go-kids-go.org.uk

The organisation's primary objective is to equip young wheelchair-users with the skills to help them reach their full potential and also to increase their confidence.



Mobility Hire

Horizon Mobility Ltd

Mobility House

Formal Industrial Park

Tewkesbury, GL20 8GY

Tel: 0800 11 6234

Email via website: www.mobilityhire.com/contact.php

Website: www.mobilityhire.com/index.php

Mobility Hire is a national source for mobility and assistive equipment on hire or purchase. They offer short or long term rental solutions to meet most requirements.

NHS Choices

Website: www.nhs.uk



NHS Choices provides a comprehensive health information service helping you to make the best choices about your health and lifestyle, but also about making the most of NHS and social care services in England. Other NHS websites include: [NHS Inform \(Scotland\)](#), [Health and Social Care online \(N.I.\)](#) and [NHS Direct Wales](#). Further reading: [Choosing mobility equipment, wheelchairs and scooters](#) by NHS Choices.



Rica

G03, The Wenlock
50-52 Wharf Road
London, N1 7EU
Tel: 020 7427 2460
Email: mail@rica.org.uk
Website: www.rica.org.uk

Rica is a UK research charity providing information for older and disabled people. Further reading: [Powered wheelchairs and scooters research](#) and [Advice on charity funding](#).



Sports Able

Braywick Sports Ground
Maidenhead SL6 1BN
Tel: 01628 627 690
Email: info@sportsable.co.uk
Website: www.sportsable.co.uk

Sportsable aims to promote awareness of disability through sport and recreation and particularly integration of disabled and able bodied people. They also provide sports and recreational facilities and opportunities to SportsAble members.



Which?

Tel: 01992 822800
Website: www.which.co.uk

Further reading: How to choose mobility aids - [Choosing a wheelchair](#) by Which?



Whizz-Kidz

4th floor
Portland House
Bressenden Place
London, SW1E 5BH
Tel: 020 7233 6600
Email: info@whizz-kidz.org.uk
Website: <http://www.whizz-kidz.org.uk>

The organisation's mission is to transform the lives of disabled children by providing the equipment, support and life skills they need, when they need them – giving them the chance to develop their full potential.

Released September 2017, to be reviewed by September 2020, Version 1

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For more information on the Types of Evidence, please visit <http://www.livingmadeeasy.org.uk/scenario.php?csid=276>

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Email: helpline@dlf.org.uk, Website: www.dlf.org.uk Reg. Charity No: 290069, VAT Reg. No: 226 9253 54



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- Protects your **independence** with cover for takeaway food and taxi fares should your vital equipment be out of service

Travel Insurance

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- No separate referral for medical screening
- One call to quote

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The majority of DLF's advice is now online. If you would like advice or support to get online or information on local courses about getting online please contact:

Age UK <http://www.ageuk.org.uk/work-and-learning/technology-and-internet/> Call 0800 169 8787

BBC Webwise: <http://www.bbc.co.uk/webwise/> Call 08000 150 950

Digital Unite: <http://learning.digitalunite.com/category/using-the-internet/>
Call 0800 228 9272 Or write: Digital Unite Limited, Unit 2B, Poles Copse, Poles Lane, Winchester, SO21 2DZ

Go On: <http://www.go-on.co.uk/> Call 0800 77 1234
UK online centres, The Quadrant, 99 Parkway Avenue, Parkway Business Park, Sheffield, S9 4WG

UK Online Centre: <http://www.ukonlinecentres.com/>

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