

Choosing a hoist and slings for lifting people


Introduction

Hoists provide a mechanical means by which a less able person can be moved or transferred from one place or position to another. You may need a hoist when the act of moving you puts too much strain on your carer or on yourself and there is a risk of harm. The aim of using any manual handling equipment is to reduce the risk of injury to the individual and/or carer to the lowest level possible.

Accidents can happen when using hoists - usually because incorrect or incompatible hoists and slings are being used, or they are being used inappropriately. It is vital that you obtain an assessment and advice and training from a trained moving and handling professional.

- Assessment of needs from social services
- Find an occupational therapist
- Find a physiotherapist

What is a hoist?

 Image of a hoist

A hoist is usually a strong metal frame which may be static (fixed) or mobile. The frame has a lifting mechanism operated manually or powered by electricity. From the frame or lifting arm/boom is suspended a sling (on a spreader bar), or a chair, to support and carry a person as they are moved from one place or position to another.

A manual lift may use a winding mechanism or a hand pump - this operates a hydraulic cylinder to raise or lower the service user. Hydraulics make the lifting easier and smoother.

Electronic hoists have a power pack/battery which will need charging. A powered hoist will need to be positioned close to an electric socket if you wish to charge the pack in situ, or the power pack can be removed from the hoist and plugged in elsewhere to charge. All electric hoists must have emergency stop buttons and manual release mechanisms to allow the service user in the hoist to be lowered without battery power in an emergency.

Hoists can also be classified as active or passive. An active hoist may be used where the person can bear some of their own weight and has some trunk stability. Hoists such as these are used, for example, to provide some support when a person stands. A passive hoist provides full support to lift a person and requires no active participation from them

Types of hoist

Static hoists


Static hoists tend to be installed and used for one particular purpose, for example getting in and out of the bath, getting in and out of a swimming pool, riding for disabled people. The metal frame is securely fixed, usually to the floor, with a seat or sling which pivot from the frame and can be raised or lowered. The hoisting mechanism may be manual or electronically powered, controlled with a remote handset.

Bath/bathroom hoists

A bath hoist is usually static. The hoist usually lifts a rigid plastic bath chair with simple arm rests/bars which raise and lower each side. On some models the seat is detachable from the hoist and will fit onto a mobile chassis frame once out of the bath, allowing the person to be wheeled from the bathroom. The chassis may be designed to allow the seat to be positioned over a toilet.

Poolside lifts


Poolside lifts may be static or mobile. They have a greater range of movement to lift the user into the pool. They may use a rigid plastic chair, hoists or

 Image of a poolside hoist

specialist support systems to lift the individual.

Mobile poolside lifts use a heavy base to counterbalance the weight of the individual as they are hoisted into the pool.

Standing hoists/stand-assist hoists

 Image
of a
standing
hoist

A standing hoist supports the user with a sling around the upper back, under the arms and a band around the upper thighs. The user positions their feet onto the footplate and braces their knees against the adjustable height pad. Whilst the user holds onto the frame, the hoist gently lifts them to a standing position providing continuous support. Depending on the model, such a hoist can be used for transfers or to assist with walking. The user must have good upper body strength and control and some weight-bearing ability.

Mobile hoists

Mobile hoists have the frame/chassis mounted on castors with brakes. This allows the hoist to be moved short distances such as between a wheelchair and a bed. The hoisting mechanism may be manual or electronically powered and controlled with a remote handset. The legs on the chassis can usually be spread to gain access around large chairs or wheelchairs. Your bed must allow the hoist chassis to fit underneath it (a divan bed does not usually allow this).

If considering a mobile hoist, you need to take into account the space required to move and turn the hoist, especially when a person is being carried. If to be used in a bedroom or lounge, for example, the relevant area must be cleared of other furniture and clutter. The castors on most mobile hoists are small and liable to catch on uneven surfaces. You are advised to remove any loose rugs, worn carpets etc. If going from one room to another, doorways or corridors need to be wide enough to accommodate the hoist. A study of space used to carry out moving and handling tasks using a mobile hoist in hospital recommended 3.6m space available next to a bed to be able to manoeuvre a hoist and service user easily and safely.

Attached to the boom is a spreader bar. These vary in design and usually have two, four or six hooks to which the sling can be clipped or hooked onto. It is good if the spreader bar has a padded covering as this protects the service user from harm should the bar get too close and accidentally knock them before or after lifting.

Ceiling track

 Image of a ceiling track

A ceiling track hoist is a permanent installation into a home, or other environment, which allows a service user, held in a sling, to be moved along a single or network of tracks between locations. It is more expensive to install, but it requires less space and less effort from the carer.

Ceiling track hoists provide a powered lift of the service user, but may then be powered or manually moved between locations (traversed). The motor is usually at track height. In order to charge it, it has to be moved to a charging station when not in use.

Other motor units are available from certain manufacturers which are portable and usable between particular designs of track.

A structural survey is always required before a ceiling track hoist can be installed.

Gantry

A gantry system is a heavy frame standing over the chosen location, such as the bed. A hoist is suspended from it and can be moved in a linear fashion, along the gantry, transferring the service user - from the bed to a chair for example.

Portable hoists

A portable hoist dismantles to allow it to be transported. It may remain as a single folded unit or packed into several bags. The unit is still quite heavy, which may not be suitable for a less able carer to manage.

Hoist and sling safety

The chosen hoist and sling/s must be able to lift your bodyweight. The working load should be clearly displayed on both. It is important that you know your own weight accurately in order to select the appropriate equipment.

Check the hoist regularly, to ensure that:

- the lifting arm moves smoothly through its full range
- the castors on a mobile hoist move freely
- the brakes are effective when used
- any emergency stop mechanism works effectively.

On a powered hoist, ensure that the battery works well, is kept charged and is correctly installed. Check any electrical connections and leads to ensure there is no fraying, breakages etc.

Also check slings for any broken stitching or frayed or broken material. Straps and clips should be secure and in good condition. Slings should not be used by more than one person to prevent cross-infection. Always use slings that are compatible with the hoist (this usually means using slings from the same manufacturer).

The hoists and slings should be serviced every six months. This is a service that may be provided by the manufacturer or the supplier, or arranged by the local community equipment service if your hoist is supplied through statutory services.

A mobile hoist has brakes on the castors. These must not be used in the process of transferring a service user but may be used when storing the hoist. Check that they hold the hoist securely when applied.

Battery care

It is advisable to have two batteries for a powered mobile hoist, so one can be charging while the other is used. Once fully charged, a battery can be disconnected and stored ready for use. If a battery remains unused for some time it should be recharged periodically to maintain it. Check the manufacturer's instructions for further details.


A ceiling track hoist usually has a 'station' where it needs to be positioned in order to charge when not in use.

Types of slings

The following image shows a universal split-leg sling.

 Image of a universal split-leg sling

Having the correct sling is key to comfort, safety and achieving your aim.

 Image of a hammock sling

You can choose a sling made from the most appropriate fabric for your needs.

- Standard slings are made of polyester. It has very little friction when being slid under a service user and is easily washed and dried.
- Net is used for bathing slings. It allows water to drain away and can be easily washed and dried.
- Mesh fabric is stretchy and adapts to the service user's body shape. It is suitable for use with a person who may have skin integrity concerns or who chooses to keep the sling in situ, perhaps when seated in a wheelchair.
- Silk is another fabric that can be left in situ when a person is seated. Its fine weave moulds to a person's shape and is suitable for someone who requires the support of moulded seating.

General purpose or universal slings

These are hammock-like slings which fully support the user's torso, legs and head, if required. They are generally used with passive hoists, where there is no active participation of the service user. Usually a universal sling has split leg supports, which can be used to either hold each leg separately, or can be crossed over to hold the legs closely together. This design is perhaps the most adaptable in terms of holding the service user in a comfortable and safe position.

Slings are also available without the split-leg option. These are useful for someone who has little or no core strength and requires total support.

Toilet sling

A toileting sling is designed to allow the service user to be positioned over a toilet or commode. The sling supports the upper back (and head if required)

Image of
a toileting
sling

but splits into two wide straps at waist level. The straps continue down each side and under the thighs, leaving the service user's bottom unsupported and uncovered. Each leg can be supported separately, allowing access for managing the user's clothes and for personal hygiene.

A toileting sling is not suitable for someone who has very weak or flaccid core strength, or someone who has no cognitive awareness of what is happening or what is required of them. A certain amount of control, strength and understanding is required to maintain yourself within the sitting position of the hoist.

Strap slings

Strap slings offer the least in terms of support. They are usually used in pairs, with one around the trunk and one behind/around the thighs. They can be used in a mobile or static hoist for someone who has good trunk strength and control, but are more often used to provide additional support when using a standing hoist.

Amputee slings

Amputee slings are designed to provide a secure hold around the hips and comfort and protection around the remaining limb/s. Depending on the nature of the amputation, a custom-made sling may be required. You are advised to seek a specialist assessment of your needs.


Washable

All standard, non-disposable slings are washable. If used for one person only, washing can be done in a household washing machine. Washing will add to the wear and tear on the sling so regular safety checks must be made.

Disposable

Disposable slings are available which are not intended for washing and should not be re-used if they get wet or soiled. With very frequent use they will require frequent replacement, but should be replaced every six months even with infrequent use.

Measuring for a general purpose sling

 Image of a sling

Slings are made in a selection of sizes from extra small to extra large, with a choice of child sizes and custom-made slings also available. Manufacturers often colour-code the sizes - each size caters for a range of heights.

Each size will also have a weight capacity. Accurately measure and record your weight. If you are a particularly heavy person, you must ensure that the equipment you obtain is designed to cater for this.

When you are seated or lying, ask your carer to measure the distance along your spine, from your coccyx/the base of your spine to approximately 4cm above your head. This length is for someone who needs full support along their spine and head. Look at the manufacturer's guide to find the most appropriate size sling for you. Some manufacturers have measuring tapes which are colour-banded. The size of sling required is indicated by the colour band a person fits into when measured.

It may also be useful to measure around your chest, waist and your thighs, as you may need a wide-fit sling if you have a larger girth. If you are a particularly large or small person you must use a sling which is appropriate for you. Slings are available for people who are taller or heavier than average, or people with a wide girth. Smaller people are at risk of falling from a standard sling, so should use one of appropriate size and length for them.

Different slings have different mechanisms to attach to the hoist. Some have loops, some clips. Each sling usually has a series of fabric loops of different lengths at each suspension point. The length of strap used will change the position of the service user when in the hoist.

Custom-made slings

It is possible to order special slings for a person who has very particular needs, e.g. for use by a very tall person. You are advised to speak to a range of manufacturers before you buy the hoist to confirm that a compatible custom-made sling can be obtained.

Assessing your needs

There are a variety of hoists and slings available. In order to select the most appropriate equipment for yourself, you need to consider:

- your level of ability and those of your carer
- what you want to achieve with the hoist
- the environment/s in which you are planning to use it.

If you are struggling with caring for yourself, or your carer is struggling to provide care for you, consider asking for a health and social care needs assessment. Since the Care Act 2014 came into power in April 2015, anyone who appears to need care and support can request an assessment from their local council, irrespective of their income or savings. The Act also places a statutory duty on local authorities and the NHS to support individuals to take steps to prevent their ill health or care requirements from getting worse. These strategies for prevention can include the early provision of equipment and services to help prevent, delay or reduce the development of further need for care and support.

The care and support assessment aims to identify any difficulties you may be having in caring for yourself and how this impacts upon your wellbeing. If you have someone who helps you, they can have a carers assessment to see if they also need support to continue in their caring role.

Where a moving and handling need has been recognised, this falls under the relevant moving and handling legislation, as it is defined as a risk assessment. Risks are identified and a plan is developed to mitigate these risks, involving the provision of equipment such as hoists or other items as required. In these circumstances the equipment must be provided as soon as possible and can be seen as preventative (COT, 2016). Your local authority will identify and provide the most appropriate option for you and your carer, from within the range that they are able to provide.

If you are looking to obtain a hoist without the involvement of statutory services, you are strongly advised to seek an assessment by an experienced moving and handling (manual handling) advisor. This might be someone from a nursing, physiotherapy or occupational therapy background. A moving and handling advisor should provide an assessment of your manual handling needs and your carer's needs, taking into consideration the environment/s in which you live and/or work. They should carry out a full risk assessment and provide you with a moving and handling plan and advice on any training necessary for you and your carer/s. They may provide the training also. The assessment and plan should look at any possible risks and how they will be managed to enable you to achieve your aims safely. They should be able to advise you on appropriate equipment and where to obtain it.

Your personal circumstances

You will need to consider your physical shape and your level of ability in order to guide your choice of equipment.

- Consider your strengths. If you are able to take some of your own weight through your legs, you may be able to manage with a standing hoist which gives enough support to keep you safe as you stand up and sit down. You can then be moved when in a standing position, or supported as you walk. Using your residual leg strength for as long as possible can be of benefit, maintaining your muscle and joint strength and stability. Standing can help many of the systems within your body, including your circulation and your digestion.
- If you need fully hoisting, look at your requirement for support along your spine. Do you have the strength to hold your head and neck up independently, or will you need a sling that supports you all the way up your back, including your head?
- If you have good body stability and core strength, you may be able to manage with strap slings. These only give support around the torso, under the arms and under the thighs. Such slings must not be used with people who have any reduction in core strength, any uncontrolled movement or reduced cognitive ability.
- If you have uncontrolled movements or spasms, you will need more support when being hoisted. It is likely that a fuller sling which keeps you in a flexed position will help to reduce unwanted spasm. If you are experiencing reduced cognitive abilities you may also benefit from a fuller sling which provides a feeling of security and will keep you safe as you are moved.
- Consider your weight. Every hoist and every sling has a weight capacity which is identified on each piece of equipment. You must use equipment that is designed to cope with your weight. Special equipment is available for those with excess weight, as are slings which are designed for a person with a large girth.
- Consider your height. You must use slings which are designed for your height. If you are particularly tall you may need to look at extra long slings. Look for a model of hoist which gives more knee/leg space when you are suspended in the hoist and you may need to be in a very upright position when suspended. If you are very small you will need to use smaller slings, or you will be at risk of falling.
- If you are a single or double above-knee amputee you will need to consider using a sling which is specifically designed to hold you safely.
- What is your skin condition like? If you are prone to skin breakdown you may want to consider using a silk sling which offers more protection.

What do you want to achieve with the hoist?

The range of activities you want to use the hoist for will partly determine the kind of hoist you need and the nature of sling you require.

Consider your daily routine. When do you need to be moved and what for? For example:

- from your bed to a chair which will allow you to be showered and toileted
- into a comfy chair or a wheelchair
- from your comfy chair or wheelchair to the toilet or commode
- into bed and positioning in bed.

If you are just looking for assistance with particular activities, such as getting in and out of the bath, a static hoist is likely to meet your needs. If you need fuller assistance, a standard mobile hoist may suit. You would need to ensure that the base can fit under your bed and around your preferred seat or chair. You would also need to ensure that there is adequate access to all areas of the house that you need to reach, e.g. bedroom, bathroom and living room.

Standard mobile hoist

A standard mobile hoist will enable all of the activities listed above. Most can also lift a person from floor level if required. So long as there is enough room for access, a mobile hoist has the benefit of being usable almost anywhere. Its disadvantages are that it takes up floor space when in use and when being stored, and it requires more effort from the carer.

Ceiling track hoist

A ceiling track hoist can also carry out all of the activities listed above, but the activity is limited to the location of the hoist. If you want a ceiling track hoist you must have a structural survey of the house before one is installed. It does not use floor space and requires less effort from the carer, but is less flexible in where it can be used.

General purpose slings are available for standards transfers. Toileting and bathing slings are available for personal care activities. If you wish to remain in a wheelchair for significant periods of time, with your sling in situ underneath you, you will need to consider the fabric used in the sling.

Where will you be using the hoist?

When considering using a hoist in any environment, you need to check that all necessary areas can be accessed. This includes corridors, corners and room entrances - especially turning from a narrow corridor into a doorway.

It is easier to manoeuvre a mobile hoist along a smooth hard-floored surface. Deep-pile carpets make it very hard work. All access routes need to be kept clear of clutter. The legs of a mobile hoist need to go under or around any furniture used by the service user, including bed, seating, toilet facilities etc.

Some mobile hoists can be used out of doors, depending on their design and the nature of the outdoor surface.

A ceiling track hoist can be linear, curved, or have intersecting tracks. This allows it to access all the areas of the house that you require.

It is also worth considering privacy and dignity (it is very difficult to feel dignified when being hoisted). Ensure that privacy can be maintained as much as possible when the hoist is being used. The same factors apply in any other setting, such as work or school.

How able is your carer?

Putting a sling in the right place under and/or around a service user can be difficult, depending on their ability and size. If the service user has some ability to roll or lean safely, it can help. Learning good techniques and using equipment such as slide sheets can also make the process quicker and easier.

A standard mobile hoist requires the carer to push it from place to place, both with and without the service user being suspended in the hoist. This is physically demanding, made harder by carpeted floors and narrow access routes. The lifting mechanism used on the hoist varies in the demands it makes of the carer, with a winding mechanism being most demanding, a powered lifting being the easiest.

A ceiling track hoist does the moving for you, but as stated, you must have a structural survey done before one is installed.

Historically agencies have required two carers to be present for hoisting, however with improving product design and techniques, the provision of safe single-handed care is now commonly possible. The number of carers required or provided has to be based upon an assessment of the needs and abilities of the service user and their carer/s, within their usual environment/s.

Responsibility for the risk assessment and training

If you are assessed by hospital or social care staff, in order to provide you with moving and handling equipment they will carry out an assessment of your needs and a risk assessment.

When you are at home, if your care is provided from a care agency, as the employer the care agency is responsible for carrying out their own risk assessment and the training of their own staff.

If you, as the service user, privately employ your own care staff, including paying a family member or neighbour, you, as the employer, are responsible for carrying out your own risk assessment and training of the carer/s. If the hoist is obtained from the local authority, they may provide family carers with training on the safe use of the hoist. Some local authorities provide formal training courses. If not, organisations are available who provide such training. Ask your local authority for advice.

If you use direct payments to employ a carer, the risk assessment can be carried out by the local authority, together with you and your carer. Direct payment can be used to pay for suitable training.

Legislation

Manual handling (also referred to as moving and handling) is strictly regulated by the Manual Handling Operations Regulations 1992 and, in the work setting, the Management of Health and Safety at Work Regulations 1999.

In an employment situation, hoists and slings also need to meet the requirements of the Provision and Use of Work Equipment Regulations 1998 (PUWER) and the Lifting Operations and Lifting Equipment Regulations 1998 (LOLER). In addition to routine maintenance and servicing, LOLER requires lifting equipment to be inspected and thoroughly examined by a 'competent person' either at six-monthly intervals or in accordance with a written scheme of examination drawn up by a 'competent person'.

These regulations are underpinned by the general duties of the Management of Health and Safety at Work Regulations 1999, for a worker to take reasonable care of their own health and safety and that of others who may be affected by their acts and omissions; and to co-operate with their employers, complying with their health and safety duties.

The primary aim of these regulations is to reduce the risk of harm to the employee/carers and the individual being cared for. The MHOR provides a hierarchy of actions to be taken to do this, from completely avoiding hazardous manual handling where possible, to assessing and reducing the risk of injury where it can't be avoided. A risk assessment of any proposed moving and handling activity **MUST** be made. The regulations require a record of the risk assessment and how any risk will be managed. This should be reviewed on a regular basis.

The MHOR do not prohibit manual handling. In fact, organisations are not allowed to have blanket policies. Each situation has to be assessed and managed individually. It is seen as a balance between protecting carers and workers and meeting the needs and wishes of the person being cared for, enabling their independence and autonomy as much as possible

Provision of hoists and slings

If you are assessed by your local authority, they will provide you with a suitable hoist and slings from the local community equipment service. Any equipment issued from this service will be on loan and be maintained and inspected through them.

If you are in receipt of direct payments or a personal budget from the council, it may be possible to use this to purchase the hoist of your choice if it has been identified as needed in your health and social care assessment. However local authority policies appear to vary. Check with your local authority before making any purchases on this assumption. Confirm also who is responsible for the required inspection and maintenance of the hoist.

If you wish to buy equipment privately, there are numerous moving and handling equipment suppliers, with information available online. Your assessor may be able to make recommendations for you. Be certain of your preferences and requirements before you look at any equipment, so that you will get something that fully meets 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 hoist need to access? Where will you store it when not in use? Ask the supplier about ongoing maintenance and repair.

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 will 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 where 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 hoist. Ask the supplying company or check their website for further information. More information is available on the GOV.UK website.

British Standard

The British Standard for hoists is BS EN ISO 10535:2006 - Hoists for the transfer of disabled persons. Requirements and test methods, published in February 2007.

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 hoist if it is required for the purposes of your work and there is no more cost-effective alternative. You will need to contact your local Jobcentre Plus.

Charity funding

Some charities will fund hoists where other funding streams have been denied. Ensure that any hoist bought or provided is based upon an assessment of your needs and that a full risk assessment is carried out.