

Hoists are used to lift and transfer a person from one surface to another. Hoists reduce the need to manually lift a person who is unable to stand and transfer independently.

Types of hoists

This document will discuss five types of hoists:

Mobile/portable hoists

Mobile hoists can lift a person from the floor, a seat or a lying position (for example, on a bed) to another seated or lying position. Some mobile hoists can be used to lift someone in and out of a car. Some can be dismantled and transported in a car or van.

Raising or lowering the boom of the hoist is generally electrically operated (battery powered) through a hand control. Electric hoists have batteries that must be regularly charged and eventually replaced.

The means of opening or closing the hoist legs varies between different models, including via an electronic hand control, a manual hand lever or a foot pedal.

Mobile hoists have either a Y shaped cradle frame for slings with clips/keyhole attachments or a spreader bar with hooks on each end for slings with loop attachments.

The cradle frame positions the leg straps further away from the shoulders preventing the person's torso feeling squashed. It can also make it easier to manoeuvre the person's bottom back in the chair, either manually or electrically.

A four-point spreader bar on hoists accommodating slings with loops also prevents the torso being squashed and may be suitable for bariatric clients. Some mobile and stand-up hoists have a commode seat or transport seat as an attachment option.

Mobile or stand-up hoists should not be used to transport a user for any distance, say, from one room to another. It is safer and easier to transfer the user to a mobile shower chair or other mobility device.

Ceiling/overhead track hoists

Ceiling/overhead hoists perform similar types of lifts as a mobile hoist but require less floor space.

The user is lifted in a sling or stretcher connected to a hoist that runs on overhead tracks. The hoist tracks are generally attached to the ceiling but a free standing, transportable electric or battery gantry frame can be installed for short-term use, or where there is inadequate ceiling strength. Tracks can run through single or multiple rooms, including bathrooms for transfers into the bath or onto a toilet.

Overhead hoists with a two-way system have a powered lifting and lowering action but require the attendant to manually move the user along the track. A four-way system has powered lifting and lowering and a powered traversing action for moving along the track. A remote control device can enable some users to operate the controls independently.

Overhead hoists reduce the physical effort on an attendant when compared with pushing a loaded mobile hoist. However, they can be an expensive system and their use is limited to the location of the tracking and the structural integrity of the ceiling.

Stand-up hoists

Stand-up hoists (or standing hoists) can take less time to use than mobile hoists when transferring a person from one seated position to another. They can also give good access to lower limb clothing for toileting and dressing, because the sling that is generally used with a stand-up hoist has no leg straps.

Independent Living Assistance

Hoists

Stand-up hoists cannot be used to lift a person from the floor or from a lying position. A person using a stand-up hoist must be able to partially weight bear and maintain a reasonably symmetrical posture while being lifted. This is important to consider when prescribing a hoist for a person with a degenerative condition.

Users are supported in a semi-standing position via an underarm torso sling, weight bearing footplate and knee pad. The user should be able to reach and hold the handgrips. The sling sits under the arms and does not support the upper trunk, shoulders or head, so the user needs adequate head and upper trunk control. Users with shoulder or knee problems may find the hoist unsuitable due to the increased pressure of the slings under the arms and knees braced against the knee pad.

Pool and bath hoists

Pool hoists lift and lower a person in and out of a pool and may be hydraulic, mechanical or battery-powered. Pool hoists are either ceiling/overhead, fixed to the floor or socket-mounted, allowing the hoist to be removed and the poolside cleared of obstruction. The person may be lifted in a sling, chair or stretcher.

Bath hoists are used to lift and lower a person in and out of a bath and may be hydraulic, mechanical or battery-powered. Bath hoists are either mobile, fixed to the floor or fit inside the bath. The person may be lifted in a sling or a chair.

Both pool and bath hoists are available in models with controls that may be operated by an attendant or, if battery-powered, by the user.

Multi-purpose hoists

Some hoists can be used as either a mobile or stand-up hoist by removing or adding certain components.

Some stand-up hoists, mobile hoists or ceiling hoists can also be used for walk (gait) training.

Before selecting a hoist

Before selecting a hoist, consider:

- What transfer is required and its purpose
- The physical and cognitive abilities of the person being lifted and the training of the attendants
- The user's weight, which should not exceed the load capacity stated by the supplier for both the hoist and the sling
- Availability of maintenance support, replacement parts and repairs
- The environment the hoist is to be used in including:
 - adequate circulation space
 - width of doorways
 - manoeuvring around furniture
 - turning circles
 - floor surface
 - storage space for the hoist
 - under furniture clearance

An in-home trial is advisable.

Features of hoists

A low base height (measured from the floor to the highest point on the top of the base) helps the hoist legs fit under low furniture.

Larger diameter castors can make the hoist easier to push over most floor surfaces, but they raise the height of the base.

The boom and sling need to be raised to a suitable height for:

- Clearing furniture (for example transferring onto a bed)
- Tall users
- Gait training

The boom needs to be lowered to a suitable height so the attendant can apply the sling or

Independent Living Assistance

Hoists

stretcher to a person on the floor. The lower the boom can go, the better.

Spreader bars for stretchers, a Jordan frame or weight scales can be used on certain hoists.

Optional weigh scale attachments enable the user to be weighed while they are in the hoist.

Opening the hoist's legs widely allows it to be positioned around furniture and closer to the person being lifted. This feature provides greater stability by widening the hoist's base of support. Most hoists have this feature.

Safety features

Emergency stop buttons are an important feature.

Hoists should also have an emergency lower mechanism that allows the user to be safely lowered if the battery charge is insufficient to operate the hand controls. Some hoists also have a mechanical lowering device for use if there is a power failure.

In most hoists, the boom will stop if it encounters resistance on lowering. Take care to raise the boom before the resistance is removed to ensure that the boom does not rapidly drop and injure the user.

Slings

Hoists that use slings with clip-on ('keyhole') attachments cannot use slings with loop attachments, and vice versa.

Some manufacturers recommend that only their slings are used with their hoists.

Specific slings are used for walk (gait) training.

For additional information on slings see separate information sheet *Slings*.

Further information and support

An occupational therapist can provide advice on the hoists that best suit your needs.

Through **My Aged Care** it is possible for older people to access Australian Government-

subsidised services including a home assessment by an occupational therapist, home modifications. For further information and to check eligibility, call 1800 200 422 or visit www.myagedcare.gov.au.

People under the age of 65 with a permanent disability who are **National Disability Insurance Scheme (NDIS)** participants and have Assistive Technology or Consumables funding approval may be eligible for equipment including hoists and slings if these items are deemed necessary.

Catalyst Foundation (including Seniors Information Service) can help you to access useful resources and to locate equipment suppliers. Tel (08) 8168 8776 or email information@catalystfoundation.com.au.

The information contained here is general in nature and is not intended as health advice.

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