



Lifts – stepping up to the next level

Choosing equipment when getting up and down stairs is difficult



If you have mobility problems, stairs can be an unwelcome and sometimes dangerous obstacle, not only in the community but also within your own home. A physiotherapist can assist you to strengthen your muscles or advise you about new techniques for going up and down stairs, and an occupational therapist may be able to arrange for banister rails to be installed. It may be necessary for you to use a bedroom and bathroom on the ground floor, or even to move to another house, so that the need to climb stairs is eliminated. If these options are not feasible, there are different types of lifts for getting up and down stairs:

- stairway lift (with seat, small standing or perching footplate, or large wheelchair platform)
- vertical low-rise wheelchair platform lift
- vertical enclosed passenger lift
- portable stair climber

It is intended that material in this publication be used in conjunction with consultation with an occupational therapist who can advise you about which equipment may suit your needs.

Australian Standards

All types of passenger lift products and installations should comply with relevant Australian Standards. This information sheet refers to passenger lifts in private dwellings. The Australian Standards set out minimum requirements for both private residences and for locations other than in private residences.

AS1735.7–1998	<i>Lifts, escalators and moving walks Part 7: Stairway lifts</i>
AS1735.12–1999	<i>Lifts, escalators and moving walks - Facilities for persons with disabilities</i>
AS 1735.14–1998	<i>Lifts, escalators and moving walks Part 14: Low rise platforms for passengers</i>
AS 1735.15–2002	<i>Lifts, escalators and moving walks Part 15: Low rise passenger lifts—non-automatically controlled</i>

General considerations

Progressive conditions: If you have a condition that could deteriorate, what will be the best long term solution? Although you may be able to use a seated stairway lift now, it may be wise to consider installing a through-floor lift so that in future the option to travel in a wheelchair is available. It is advised that a stairway lift cover the entire length of the staircase.

Load capacity: How heavy is the person who will use the lift? The rated load capacity of a lift is the maximum occupant-weight specified in the relevant Australian Standard. It is important for the occupant's safety that their weight is not greater than the stated load capacity.

Stairway lifts

A stairway lift may allow a person to remain in a two-storey home. It can be a more cost effective solution than moving to another house or building an extension. Stairway lifts are designed to carry people up and down stairs. A track runs along the length of the stairs and is normally fitted to the stair treads rather than to the wall. The power pack (drive unit) is attached to the track. Fitted to the power pack is a chair, or a small footplate to stand or perch on, or a large platform to carry a person in a wheelchair.

Stairway chair lifts are the most common type of stairway lifts. To use this type the person needs to be able to bend their knees, so that their feet do not touch the other side of the staircase. They also need to be able to sit safely on the seat during transit, and transfer on and off at the top and bottom of the stairs. A swivel seat and lift-up arm rests will make transfers onto and off the seat easier. The swivel seat can be manually or electrically operated. Phone 1300 885 886 to make an appointment to view and trial the chair stairway lift on display at ILC Tas.



Stairway standing lifts may be used by people who are able to stand while travelling up and down stairs. This type may be chosen in preference to a seated model if the staircase is exceptionally narrow or if the person has a stiff leg/s and is unable to bend their knee/s when seated.

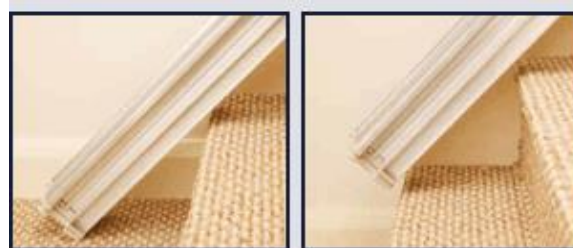
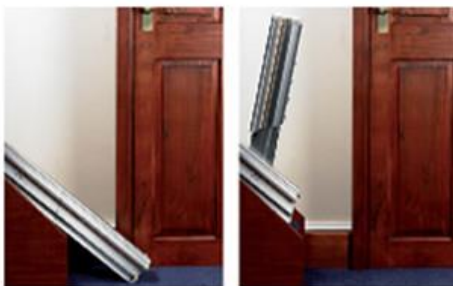
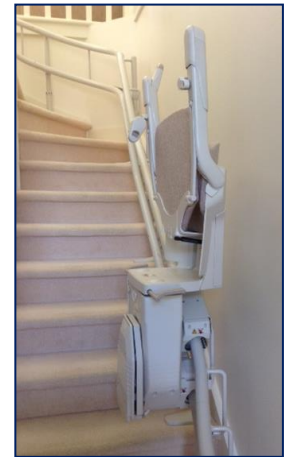
Stairway perching lifts are similar to standing stair lifts except that they provide a small amount of additional support underneath the buttocks. The person using this type is transported in a perching position, between sitting and standing.



Stairway lift features

Options for stairway lifts may include:

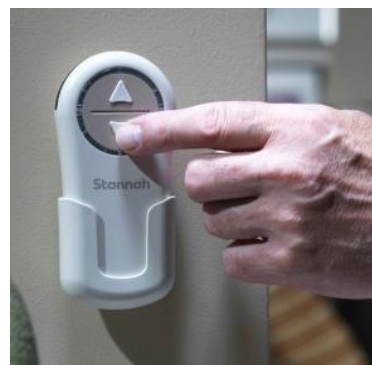
- a swivel seat, either manually or power operated, for ease of getting on and off
- a model which travels around corners or bends
- a retractable seat belt which can be fastened on one side or centrally
- customised seat height
- a seat which flips up when not in use
- a foot platform which folds up, manually or power operated
- flip-up arm rests
- safety sensors in foot platform, stopping lift automatically if an obstacle is detected
- wrap-around arm rests for a greater sense of security
- hinged track that folds up when not in use, or a slide track that moves with the stairway lift, so that the track does not protrude into a passage or doorway at the bottom of the stairs



- back-up battery
- a model which provides access to porch, front door or deck, and is designed for outdoor conditions

Most **controls** require constant pressure and the stairway lift will travel while the control is pressed. Optional features of controllers may include:

- a toggle switch mounted on the left or right arm rest, held in the direction of travel
- a joystick on the arm rest
- two hand held remote control handsets so that the stairway lift can be sent or called when it is not occupied
- a call button on the wall for an attendant to operate



Checklist for stairway lifts - chair/standing/perching

- Are you able to bend your knees sufficiently to travel in a seated position on a stairway lift?
- Who will operate a stairway lift? Will it need to be operated by you, or someone else? Controls are available to allow both occupant and another person, such as an attendant, to operate the lift.
- Is it for indoor or outdoor use?
- Are there doors, thresholds, bulkheads, banister rails or heaters near the staircase? How long is the staircase? How wide is it? Is it straight or curved? How steep is the staircase?
- Is a straight track or curved track required?
- Will there be adequate head clearance?
- What power source is available? If mains powered, is there battery backup? If battery operated, do batteries automatically charge when not in use? Do batteries charge at any position along the track?
- Will the platform, seat, footrest and arms fold up? Is this done electronically or manually?
- Can other members of the household, e.g. children, pets, elderly visitors, easily use the staircase when a stairway lift is folded against the wall?
- Is the person using the stairway lift able to transfer on and off the chair? Is it adjustable-height? Is a swivel seat required? If using a perching or standing stairway lift, is there adequate postural support (waist strap, grab rails)?
- Do you experience dizzy spells? If so, it may be advisable not to use a standing or perching stairway lift.
- Is the standing footplate 370 mm x 290 mm minimum and able to carry at least 115 kg?
- Is the stairway lift call system activated by operating a switch or button, perhaps located on a wall and able to be reached, or is the lift remote controlled using a hand held device?
- Is a key operated switch required? (Special safety measures are required if the complete track is not in view from call stations.)
- Is the occupant able to operate the controls? Do the controls require continuous constant pressure?
- What safety devices are included? Is there an obstruction safety cut-out device?
- Does it feature 'near silent' operation?



Stairway wheelchair platform lifts eliminate the need for people to transfer out of wheelchairs and onto stairway lifts. Instead, a person is able to wheel or be pushed straight onto the platform. The platform usually has a ramp which folds up to become a barrier that prevents a wheelchair from rolling off. Although most platforms fold up against the wall when they are not in use, this type of stairway lift takes up a lot of room on stairs and many domestic stairs would not be wide enough to accommodate a wheelchair platform.

Wheelchair stairway platform lift options may include:

- a flip-up seat for a person not using a wheelchair
- the ability to fold up the platform, maximizing space for other stairway traffic
- a variety of sizes, requiring between 1100 mm and 1500 mm stair-width for installation
- a model which moves along a curved track for travel between floors
- a model designed for outdoor installation



Checklist for stairway wheelchair platform

- Is the wheelchair platform 1000 mm x 685 mm minimum and able to carry at least 200 kg? Is there enough circulation space for the wheelchair to move on and off the platform?
- What is the load capacity of the platform?
- Is there a communication device for a person using a wheelchair platform lift?
- At what speed does the wheelchair platform travel? Does it have a slow start/finish mechanism?
- Can other members of the household, e.g. children, pets, elderly visitors, easily use the staircase when a stairway lift is folded against the wall?
- Is there sufficient space on the stairs for people to move past a wheelchair platform if emergency evacuation is necessary?

Vertical passenger lifts

A **low-rise wheelchair platform lift** (sometimes called a porch lift) is used to transport a person in a wheelchair up to a height of not more than 1000 mm. This type of lift is useful if there are only a few steps to be climbed. There is a product which transforms a set of stairs into a platform lift at the push of a button.

An unenclosed **low-rise passenger lift** to transport persons with limited mobility (not using a wheelchair) may travel to a height of 2000 mm.

Enclosed (through floor) passenger lifts come in a variety of sizes and can be installed in homes. Some can be installed for outdoor use. These lifts allow for more than one person to travel at a time, and will carry their mobility aids and other items. A minimum clear door-width opening of 900 mm is required.



Checklist for vertical passenger lifts

- Are the controls easy for the operator to use independently?
- Is there a sign displaying the maximum load for the lift? Is there an overload indicator?
- Is the floor firm and slip-resistant?
- In the event of a power outage, is there an alarm and battery powered emergency raising and lowering? Is there a two-way intercom system to enable the user to call for assistance?
- Can a wheelchair turn around in the lift? Circulation area required is 1100 mm wide x 1400 mm deep. 1400 mm x 1700 mm is recommended.

Portable stair climbers

These are portable battery operated devices which have a wheelchair platform, or special attachment that holds a standard manual wheelchair. The wheelchair is carried up or down the stairs on a tracking wheel base. An attendant is required to control the direction of travel. The machine controls the speed of ascent/descent and reduces the amount of manual handling required.

There are portable devices for evacuation purposes. The person being transferred up or down stairs is securely held by adjustable safety straps in a chair which is mounted on a tracking wheel base.

Portable stair climbers may be suitable for both indoor and outdoor use, in public buildings and in private homes.



Checklist for portable stair climbers

- What is the maximum load capacity of the stair climber?
- Can it be easily dismantled or folded for storage?
- Is there a secure place to store it when it is not in use?
- Will you feel comfortable if you are tipped back while being transported on this type of stair climber?

Other outdoor options

There are purpose designed outdoor inclinator which carry a number of people, including someone using a wheelchair, and do not utilise stairs. Safety features include a speed governor to automatically apply brakes if the lift is travelling too fast.



Questions to ask suppliers

- What guarantee is offered?
- Does the lift meet relevant Australian Standards?
- Is a maintenance contract included in their sales agreement?
- Is installation included in the price?



Second hand lifts

It is possible to save money by buying a second hand lift, but it is advisable to purchase from a lift manufacturer, or an authorised company dealing in reconditioned lifts. It should be installed by a qualified installer. The company should have checked that the lift meets current Australian Standards, and they should provide a guarantee. The resale value of a stairway lift which you may wish to sell in the future could be less for a lift on a curved track than for a lift on a straight one as a curved track would need to fit onto a stairway which is the same shape.

Maintenance, servicing and safety

Refer to the supplier and manufacturer manual for maintenance instructions and safety warnings. It is important to have new and second hand lifts serviced regularly by qualified personnel.

Contact ILC Tas for more information



Ring **1300 885 886** to speak to a health professional



Visit our website www.ilctas.asn.au or email us at ilc@ilctas.asn.au



Make an appointment to visit our centre at 275 Wellington Street, South Launceston



Ring us to find out when we will be visiting your area

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