

around the HOUSE

Negotiating Stairs

Stairlifts are mechanical devices that carry people—sometimes even seated in wheelchairs—up and down stairs. Stairlifts are yet another product that can help make your entire home accessible. They are relatively inexpensive, with the average cost at about \$1,400 for a single rail or flight.

The fact that additional levels of a home can be easily and affordably accessed is another good reason to include Universal Design (UD) space planning throughout the home from the start.

The most common type of stairlift use in private homes is on *straight* stairs; it employs a straight rail of “track” that is attached to the staircase. **Straight** stairlifts are relatively easy to install and have a shorter manufacturing time because they require fewer customizations.

Curved stairlifts are also possible but must be customized to accommodate every unique staircase. This usually

Platform lifts allow wheelchair users to roll onto them without having to transfer.

involves careful measurement and specialized design and manufacturing, resulting in higher cost and a longer installation time.

Perched lifts allow a person to stand up and rest against the back of a lift pad as it moves up or down the stairs. These are beneficial for people for whom the simple act of sitting and standing can be challenging.

A **platform** lift

can move a person and his/her wheelchair up and down stairs. These are made of much heavier materials. They are also a convenient alternative to a ramp if available space is limited.

I am currently designing a UD master suite and kitchen addition to allow “aging in place” for my parents. We are including a 5'x5' removable floor area, with dedicated electrical service, for the possible addition of a platform lift in the future. The allocated space is

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located next to the stairs up to the new mudroom as you enter from the garage. Given the space limitations of the existing garage and addition, an interior ramp is not feasible. We don't want to be limited by an unprotected exterior ramp should my parents have an eventual need, so we're planning ahead for interior wheelchair access.

Study the Options

There are several options to consider when selecting a stairlift. Many systems have weight restrictions of 250 pounds and a maximum weight of about 400 pounds. The height of the seat on the carriage should be considered if the user has difficulty transferring or is short in stature. Many seats are adjustable for this reason.

Earlier stairlifts used mainly AC current that ran at full voltage. Many lifts are

now powered by rechargeable batteries, use DC current, and will provide power in case of a power outage. Recharging is at the place the unit will “park” to charge its batteries. A common 110-volt outlet recharges the battery pack. If the user has lower back pain and a soft start and stop is important, the DC-powered stairlift is most appropriate.

Wider stairs work best for stairlifts. If the stairs are narrow (less than 37”), the track distance from the wall is a key issue. This factor also depends on the user’s height and leg length. Remember, the stairs need to remain safe for ambulatory users. When designing a new house, design the stairs to be 4’-0” wide and provide handrails at both sides, for eventual adaptability of a stairlift and ambulatory stair safety.

Stairlifts can be installed at either side of the staircase. In order to provide more stair space and avoid a tripping hazard, many stairlift seats fold back to within 8–12” from the wall.

Make sure you have adequate room at the top and bottom of the stair and good lighting at both transfer areas. The ideal space to allow for a stairlift is 8’x5’ at the bottom and a 5’x5’ space at the top of the stairway. If a wheelchair will be used, it will be necessary to keep an additional chair at the top of the steps.

Consider whether the user will need help transferring from the stairlift seat to the wheelchair. If a caregiver assistant is needed, make sure the person is physically able to perform the task. If the user is elderly, it may not be a good idea for his/her elderly partner to be the dedicated transfer helper. The risk of falling down the steps could be great. If this is the case, an in-home elevator or platform lift may be the best solution.

Stairlifts in and of themselves are designed to be safe. They have seatbelts, and some have a footplate safety sensor. Many have swivel seats to aid when making the transfer, and manual and electric swivel seats are available. The purpose is to swivel the user away from the stairs toward the landing. This is designed as a

interrupt ambulatory circulation and travel of the stairlift. The unit must extend fully from top to bottom.

Some units have rails that can fold up and down so as not to obstruct the required clearance. Verify that the user can operate this manually or that it has a power-operated control.

Test and Research Before Buying

Users’ needs vary, so be sure to test the unit before you purchase it. You may want to consult with an occupational therapist (OT) or physician prior to selection. You may be able to purchase a used unit, and local funding sources might be available. A stairlift comparison chart that caters to your selective needs and a state-by-state list of funding sources are available at www.silvercross.com. Check with your insurance company and local independent living center for funding options.

Consult your accountant to see if the lift may be partially tax deductible if needed for medical reasons. Refer to section 502 of the IRS tax code. Make sure the unit is ANSI-A18 listed. It is also a good idea to consult with your local building official about space requirements, and make sure the electrical plug meets local codes.

Always make safety the main priority when selecting a stairlift. When a home includes Universal Design throughout, your entire house will be adaptable for life-span living—for everyone.

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So as not to block access to hallways or other traffic areas, some units fold up and down.

safety feature but, as noted above, may still be difficult for some to use.

Most stairlifts have a hand-operated toggle device or “joystick,” but this may be painful for someone with arthritis or who does not have the use of his/her arms.

Some units have wireless call controls. Specify them at the top and stair bottom so you can bring it to the needed location.

If the user carries a cane or walker, be sure one is stored at the top and the bottom of the stair. Never bring it up the steps while sitting on the lift. It could get stuck in the lift on the stairs, creating a hazardous situation.

Sometimes the stairlift rail can conflict with doors or hallways that can