

factsheet **Stair Lifts**

Prescribing a stair lift for use in the home environment



Chair



Standing platform and perch seat



Wheelchair platform lift

This factsheet refers to a stair lift as a powered lift mounted on a fixed track which follows the line of a stairway in the home environment. A stair lift consists of either; a chair; a small platform for standing on - with or without a small seat for perching; or a large platform to accommodate a wheelchair (wheelchair platform lift). A stair lift can be for internal or external use. The track may be straight or curved. A wheelchair platform lift requires a minimum stairway width of 1200mm.

Note: For a short flight of steps other alternatives to access the client's home should be considered prior to recommending a stair lift e.g. a ramp, modified steps, bilateral handrails with a mobility aid at the top and bottom of the steps. Is there other access to the dwelling which can be utilised/more readily modified?

Prior to recommending a lift for use on stairs, a comprehensive occupational therapy assessment of the client's functional needs, within their home environment, must be undertaken. Consultation and a joint site visit by the occupational therapist, stair lift company representative and the builder who will be installing the stair lift (HMMS &/or lift company builder) must be undertaken prior to finalising specifications. The client and/or carer should also be assessed using the recommended stair lift, or an equivalent stair lift. If this is not possible, tasks involved in operating the stair lift such as location and use of controls, or space requirements e.g. circulation space, should be simulated to ensure the client and/or carers needs are met.

Occupational Therapy considerations when prescribing a stair lift or wheelchair platform lift.

1. **Who will be using the lift?** – e.g. client independently or with carer? Will the stair lift impede access for other users of the stairs? If so, the stair lift may not be suitable.

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2. **Models Available** – does the client need a chair, standing, perching or wheelchair platform lift? Is the lift required for use on an internal or external stairway? Is a straight or curved track required? (the cost is significantly higher for a curved track).
3. **Client's upper limb strength, active ROM and hand function/dexterity** – can the client operate/use the controls, key locks, folding or swivel seat mechanism?
4. **Client's balance/standing tolerance** – is the client safe to perch on a seat or stand safely on a standing platform? Is vertigo a problem? If necessary can the client safely bend over to lift up the footplate? Is an automatic folding footplate required?
5. **Client's cognitive status and ability to learn new tasks** – e.g. operation of controls/remote control, fold up seat. Is anxiety, fear and/or impulsivity a problem? Will the noise of the lift concern the client? Does the client need a simplified and/or pictorial sheet for safe operation of the lift?
6. **Client's vision** – e.g. can the client see the controls clearly? Does the client need the stair lift parts to have colour contrast? Are Braille options available on the wheelchair platform lift for those with reduced eyesight? Consider lighting at night especially if the lift is in the path of the client, carer or other household member when they access the kitchen and/or toilet. Will special lighting be required in the stairwell? A minimum of 75 lux is recommended at stairwells in private dwellings.
7. **Client's ability to tolerate repeated use of the stair lift** – how often each day will the client need to use the lift? Will fatigue influence the client's ability to operate the lift by the end of the day? Will the speed and sound of the lift affect the client? Will the client remember to leave the lift on the charge stations, at the top and bottom of the track, each time they use it? Consider both physical limitations and cognitive/psychological status.
8. **Short term or long term use** – if short term, other alternatives must be considered. Will the lift enable the client to access the community or will they remain housebound?
9. **Prognosis and safe use of the lift in the foreseeable future** – can the client's expected future mobility and mobility aid (including growth/change in mobility aid) be accommodated on the lift? Is it anticipated the client will be able to safely use the lift in the future? Can the lift be modified in the future, if necessary, to accommodate changing needs e.g. from a standing platform to a chair?
10. **Client is able to cope if the lift fails** – can they summon help? Can they operate the emergency back-up system? If not, ensure appropriate alternative arrangements are made e.g. client has a personal alarm system in situ.
11. **Trips/falls risks** – have these been identified and minimized (in conjunction with the stair lift provider) e.g. is the wheelchair platform lift access ramp flush with the floor surface (no lip present)? Is a retractable/moving track required so that the lift does not intrude in to circulation space at the top and/or bottom of the stairs?
12. **Location of the lift** – internal or external lift required?

If internal: Are the stairs wide enough for the lift, especially if a wheelchair platform lift is required? Are the stairs wide enough for an ambulant person to use? Will the size of the lift prevent access by ambulance stretcher, if required? On which side of the stairs should the lift be located? Is there a door that would be difficult to access if the lift were on the same side?

If external: Are there any implications with regard to the weather for the users of the stair lift? Is an electrically operated lift safe in wet weather? Does the lift and/or stairway require covering or protection from wind, rain &/or sun? Will metal components such as handrails be too hot to touch in the summer?
13. **Rise** – what is the overall rise? Is there more than one flight of stairs to traverse? If so, how many?

14. **Changes in Direction** – will the lift be required to change direction? If so, are there one or more changes in direction? Is a curved model required? Is there sufficient room on the stairwell for the lift to track around the corners? It is important to note that even one change in direction adds significantly to the cost of the lift, and may affect the cost effectiveness of this option. For example; one change of direction means the Level 1 HMMS is unable to fund the work; two changes in direction may make an enclosed vertical lift a more cost effective option.
15. **Head Clearance** – ensure a minimum of 2000mm vertical clearance throughout the stair lift's path of travel. For a wheelchair platform lift a minimum vertical clearance of 2400mm to 2600mm is required throughout the path of travel.
16. **Landings** – is there adequate space for a landing at the top and bottom of the lift? Is there adequate circulation space on both upper and lower landings for independent transfers on/off the lift and/or to accommodate client, carer and/or mobility aids? Consider if the stair lift needs to travel past the top step to facilitate safe transfers on/off the lift. Consider direction in which the wheelchair platform lift access ramp opens when determining landing space and circulation requirements.
17. **Maximum Weight Capacity** – consider weight of client. What is the overall weight of the client, carer and/or equipment to be transported on the wheelchair platform lift? Is your client/carers bariatric? The maximum weight capacity or load rating of a lift for use on stairs is usually expressed in kilograms. Is a lift with a greater maximum weight capacity required?
18. **Seat** – what type of seat is required? Folding? Swivel? Perching seat? Lift away armrests? Consider seat height, width and depth and width between armrests. Can the client operate the folding or swivel seat mechanism or is automatic operation required? Is the seat required to swivel in two directions – so that it can swivel in one direction at the top and the other direction at the bottom? Can the client transfer on/off the seat independently and safely? What seat height is required for the client to transfer on/off the seat independently? Can they lift the armrests out of the way? Is a grabrail, handrail or superpole required in proximity to the entry and exit points of the stair lift to assist with transfers on/off the stair lift? Consider the size of the client i.e. will their knees touch the walls or handrails? Is it safe to remove existing handrails?
19. **Size of the Footplate &/or Wheelchair Platform** – will the size of the footplate or the wheelchair platform accommodate the client and/or mobility aids? Chair, perching and standing stair lifts have a small footplate – can the client independently lift their feet on and off the footplate/step on and off the footplate safely? Can the client keep both feet on the footplate for the duration of the ride? Can the client fold up the footplate? Is the client at risk of overbalancing while leaning over to lift the footplate? If a mobility aid cannot be carried on the stair lift, there may need to be a mobility aid available at the top and bottom of the stair lift. Will the wheelchair platform lift accommodate the client's wheelchair? Consider bariatric clients and the size of their wheelchair. Who will fold the wheelchair platform against the wall when the lift is not in use, if clear access to the stairwell is required? Is an automatic folding mechanism required?
20. **Entry & Exit** – the wheelchair platform lift entry may be at one end of the platform with the exit off at the other end. Side loading is also possible on some models i.e. the exit is 90° to the entry point. Side entry on wheelchair platform lifts may require the client to wheel on forwards but back off or vice versa. If side loading is required, ensure the wheelchair platform is large enough for your client's mobility aid to turn 90° or ensure that the client can back on/off the wheelchair platform. Is there sufficient space for entering and exiting the lift i.e. what is the circulation space required on the landings to accommodate entry in one end and exit out the other, or side entry/exit?
21. **Access Ramps** – an access ramp is fitted to the entry & exit of a wheelchair platform lift. To prevent the user falling off a wheelchair platform lift, the access ramp folds up and down from the platform floor. The access ramp may be operated automatically or manually. Can the client and/or carer operate the manual ramp? Is there sufficient space available for the access ramp on the landings?

22. **Method of Lift Operation** – lift controls operate on constant pressure/ 'hold to run' i.e. the control handle requires constant pressure to activate the lift. Who will be operating the controls? Client? Carer? Other family members? Are all persons operating the lift able to apply the constant pressure required to activate the lift? Are the controls a suitable type and size for the client/carer to operate? Is a remote control required e.g. for instances where the lift can be kept on one level when not in use? Are the controls on the wheelchair platform lift to be incorporated into an Environmental Control Unit?
23. **Accessibility of Controls** – controls may be fixed, handheld on a stretchable cord or remote. Where do the controls need to be located (consider position, height)? Can the client and/or carer comfortably reach and operate the controls? Are the controls on the left or right side of someone who is seated on a wheelchair platform lift? Are the controls outside the wheelchair platform lift and only accessible to a carer?
24. **Security Locking System** – is a security lock required? A security lock generally means that a key is required for operation of the stair lift. The security lock is intended to prevent unauthorized or unsafe use of the lift or to enable the lift to be kept at a certain level. Can the client/carer access and operate the security lock mechanism? Consider location and type of security lock mechanism.
25. **Handrails** – consider height and length of any handrails installed on stairway. Will the handrail encroach into circulation space if required to turn 90° to enter or exit?
- Note: If handrails have been removed to allow an increase in the stair width for lift installation a balustrade may be required to prevent children getting through the lift tract and/or posts and falling off the side of the stairwell. Is there any risk the client's feet may get caught in the balustrade when using the stairlift? If so, the balustrade may need to be covered over. Is there a risk of others such as carer/family members getting a hand or arm caught in the path of the lift while it is being operated?
26. **Footplate & Wheelchair Platform Surface** – is it slip resistant? Will it be hard to clean? Who will clean it? Is a referral required to a community service e.g. Home Care to ensure regular cleaning is undertaken?
27. **Maintenance/Running Cost of Lift** – will there be ongoing costs for the client e.g. maintenance? Can the client accommodate these costs? If it is to be an external lift - who will keep the access area to the lift, and the track, clean and clear?
28. **Timeframe for installation** – is the timeframe adequate in terms of client/carer need? Will the client and/or carer require assistance to access the stairs while waiting for lift installation? A curved track, which is custom made, will take a longer timeframe for installation (up to 6 weeks longer) than a straight track model.

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