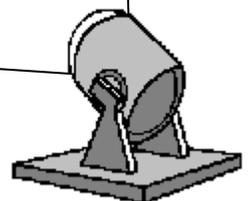
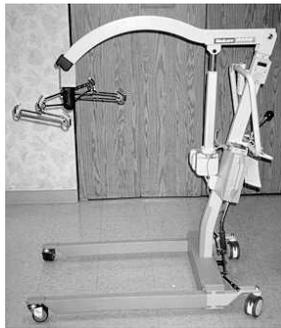
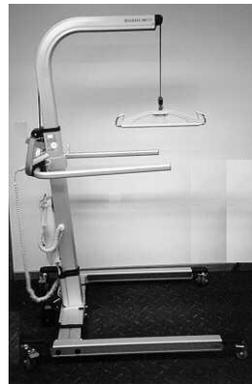
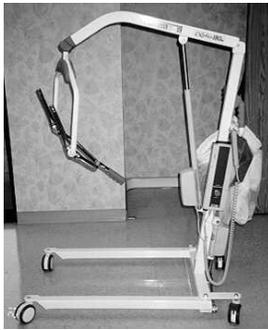


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# Frequently Asked Questions about Portable Total Body Patient/Resident Lifts



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## **Acknowledgments**

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## 1. What is a portable total body lift?

Portable total body lifts are used to transfer patients/residents to or from a bed to a wheelchair, toilet chair, bathtub, commode, etc. (These devices used to be called Hoyer™ lifts because Hoyer was one of the first companies to make them.) A total body lift is typically used with patients/residents who can't bear weight, have physical limitations (quadriplegia, amputee), or are very heavy and can't be safely transferred manually by staff. A portable total lift supports the entire weight of the resident with a sling attached to a stand on wheels that can be freely moved or positioned to allow a transfer to a different surface.

To help you understand the narrative information that follows, please review the illustration below. It shows common features of a portable total body lift.

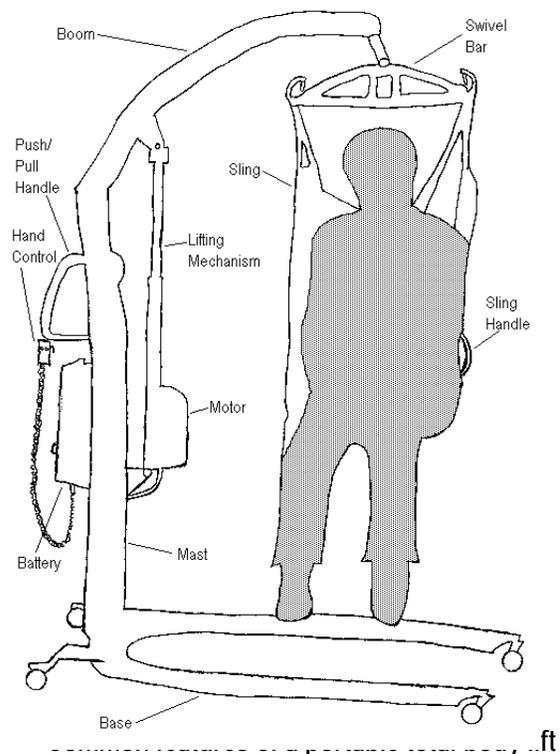
## 2. How is a lift designed to handle a patient/resident safely?

Most modern total body lifts have several common features as seen in the illustration to the right. With a wide adjustable base, extremely strong sling materials, steel or aluminum mast and boom, and electrical motorized lifting mechanisms, most newer lifts can lift residents up to 400 pounds. Some lifts have even been designed to handle residents up to 600 or even 1000 lbs.!

## 3. What are the benefits of using a total body lift?

The physical demands required to transfer a resident using a total lift are significantly less than manually lifting a resident. This means less risk of a back or shoulder overexertion injury, which are two of the most common injuries in direct care staff. The less physically demanding the task, the less fatigued the caregiver is over the course of a shift, which also means less risk of injury.

Not only does the caregiver benefit from using a lift, but the patient/resident also benefits. Using a total body lift is much safer for the patient/resident since a lift is specifically designed to handle the weight of a patient/resident. With a manual lift, the caregiver must rely on their own physical strength to perform the transfer; when handling the total weight of a resident, this often means working beyond their physical capabilities. This in turn means greater risk of dropping or mishandling the resident during a manual lift. Most modern lifts are very stable, require very little force to push or pull even with a heavy person in the sling, and are designed with slings that reduce the risk of skin tear or abrasion. Also, with plenty of practice, most lifts can be used by one caregiver, freeing up additional staff to focus on patient/resident care.



#### 4. Should a total body lift be used for all patient/resident transfers?

No. For those patients/residents that can bear some body weight, a total body transfer may not be appropriate. Instead, a sit-stand lift can be used that requires the patient/resident to bear some weight as they're transferred from a sitting to standing posture. A sit-stand lift is similar in design to a total body lift except a footplate is attached to the mast where the patient/resident stands while they're transferred. In addition, a different type of sling is used. Since the sit-stand lift only needs to support the upper body, a smaller sling is used that attaches around the back and under the arms of the patient/resident. Use of a sit-stand lift also requires the patient/resident to be able to sit up on the edge of the bed with or without assistance, and to be able to bend their hips, knees, and ankles. Further information on sit-stand lifts will be provided in a subsequent document from Labor and Industries that evaluates sit-stand lifts.

#### 5. Why is the Department of Labor and Industries interested in total lifts?

As mentioned before, total lifts significantly reduce the physical effort transferring patients/residents, which results in less risk of shoulder and back overexertion injuries. According to Labor and Industries workers' compensation data and the Bureau of Labor Statistics on workplace injuries, the nursing home industry has one of the highest rates of overexertion injuries in the State of Washington. This is primarily due to shoulder and back injuries from transferring residents. Labor and Industries is interested in devices that could prevent workers from being hurt on the job and reduce industrial insurance costs.

*Having one or several total body lifts in your facility won't ensure that employees will use them. Research on the use of lifts in health care settings has found considerable reluctance from caregivers to use a mechanical lift when performing a transfer. Therefore it's important that the introduction of total lifts also include the following:*

- Commitment from management that the use of lifts benefits patients/residents and staff. It is an important part of the facility's overall health and safety program.
- Training on the proper use of the lift, which should include ample hands-on practice.
- Written policies and procedures that provide guidance on how and when total lifts are to be used.
- Consistent and fair plan or process for ensuring compliance with policies and procedures on patient/resident handling.
- Education for residents and resident family members on the benefits of a total lift.

#### 6. How did Labor and Industries collect information on total lifts?

In an effort to better educate ourselves and the nursing home industry about the use of these devices, as well as their capabilities and limitations, Labor and Industries evaluated a variety of assistive devices that can be used to help caregivers transfer residents. Total body lifts were included in the first evaluation. Several different total lifts were evaluated in a skilled nursing facility with staff and residents. Eight total lift manufacturers were originally contacted; seven participated. Of the seven, six were evaluated at a skilled nursing facility and one was evaluated at a hospital. The evaluations at the nursing facility were conducted at Liberty Country nursing home in Centralia, Washington with staff and residents on one of the long term care units. Each evaluation lasted one week. Before staff used the lifts, a representative from the

manufacturer conducted approximately a one hour in-service training for staff on the proper use of the lift. Staff then used each lift for one week as part of their normal resident transfer duties. An ergonomist and physical therapist with Labor and Industries attended each in-service and evaluated the lifts based on several features.

## **7. Does Labor and Industries endorse any of the lifts evaluated?**

No. Labor and Industries does not endorse any of the specific manufacturers of lifts that were evaluated. The information on the different manufacturers is provided to assist you in making comparisons between the various brands and to highlight the most important features to consider when purchasing a lift.

## **8. What are the most important features to consider when purchasing a total lift?**

After evaluating each lift and talking to nursing home staff and residents who used each lift, it was determined that some features were the most critical to consider before purchasing. This is based on the use of the lift in a long-term care unit in a skilled nursing facility. Below is a description of each critical feature.

1. **Price** – Expect to pay somewhere between \$4050 and \$6000 for a new total lift with a built in scale (used to weigh patients/residents) or \$3200 to \$4900 without a scale. The scale is an important feature since the resident can be weighed during a regularly scheduled transfer without having to perform an additional transfer just for weighing.
2. **Weight Capacity** – A weight capacity of at least 400 lb. is recommended to accommodate transferring very heavy residents.
3. **Lifting Mechanism** – Most new lifts have a hydraulic lifting mechanism that is powered by an electric motor and battery. The electric motor is an important feature since it eliminates the need to pump or crank the lift by hand. The motor is controlled by a hand control with buttons for up and down. The electric motor also makes the lifting and lowering of the resident a smooth, continuous movement without jerky or rapid accelerations that are common with older hand crank or pump lifts. Some manufacturers' lifts also come with a two-speed motor, with slow and fast speeds.
4. **Lift Height Range** – The lift needs to lower far enough to reach a resident who has a low bed or has fallen to the floor. Caregivers are at an even greater risk of injury if manually lifting a resident in these situations. The lift should also be able to transfer a resident into a high bed such as a Clinitron.
5. **Various Sizes and Types of Slings** – Obviously not all residents are built the same, and not all sizes of slings will fit all residents. That's why it's important for slings to come in a variety of sizes at least small, medium, large, and extra large. Also important is the availability of slings for special purposes such as toileting and bathing.
6. **Sling Position Control** – A sling position control means either the sling is made with handles on the outside to help position the resident, or the sling bar has a handle as part of a pivoting frame. This feature is important since the handles or the bar can be used to help position the resident in a more upright posture before they're lowered into a chair or into a recumbent posture as they're lowered into a bed.

7. **Battery Portability** – Battery portability is a lift feature that allows a dead battery to be quickly exchanged with a fully charged battery. Some manufacturers use a portable battery system as a standard, whereas others offer it as an option. Those that offer a portable battery as an option use a nonportable system as a standard, which requires the lift to be directly plugged into an outlet to be recharged.
8. **Hand-Held Control** – A hand held control is typically a push button control used to raise or lower the mast. An important feature is the ability to quickly place the control on the lift during the transfer process. This will free up the caregiver's hands to assist or position the resident. For this reason, a control with a magnetic attachment is preferred over a clip since it allows the control to be placed almost anywhere on the lift, including the boom.
9. **Emergency Shut-Off Control** – This control stops the motor in case of an emergency and is a separate control from the hand-held push button that activates the power. This safety feature serves as a back up to the hand-held control. It could be used in a situation where the resident grabs the hand-held control and the caregiver needs to quickly shut off the power to protect the resident from harm.
10. **Manual Override Control** – In a situation where the battery loses power during the transfer, it will be important that the resident can be safely lowered using an override control. These controls are usually a manual crank, although one manufacturer provides a bit that can be attached to a powered screwdriver that substitutes as the manual crank.
11. **Boom Pressure Sensitive Switch** – Another safety feature that protects the resident in case the boom is inadvertently lowered onto them. A pressure sensitive switch means the lift senses the upward resistance of an object or a person caught underneath the boom and automatically stops the motor. This reduces the risk of a resident being injured by coming in contact with the boom.
12. **Turnaround for Replacement Parts/Country Lift Made in** – If the lift requires repair or a part needs to be replaced, how soon will the lift be back in service? Most manufacturers can provide replacement parts within one or two days. Since many of the manufacturers' sales representatives also service the lifts, they will have a stock of replacement parts on hand. If they don't, the part may have to be ordered from the manufacturer in which case a U.S. manufacturer can usually provide the parts faster.
13. **Manufacturer's Sales Representative** – Most sales representatives also service their lifts, so finding a reliable representative that serves your geographic area is an important consideration.

There are many additional features that may need to be considered before purchasing and may be more important depending on your facility's unique needs. For instance, you may prefer a lift with a sling made out of a particular material or a lift that comes with a battery that can be recharged in three hours or less. A list and description of these additional features is provided below, and on the following two pages.

Whatever the case, don't just rely on the information in this document before you purchase. **TRY BEFORE YOU BUY!** All of the manufacturers listed here should allow you to try their lift in your facility for a trial period (at least a week) before you purchase. Using the equipment in your facility is the best way to get feedback from employees and residents and find out what works and what doesn't in your particular facility.

14. **Type of base** – All lifts have adjustable bases that allow the legs to fit around chairs, commodes, etc. A “V” base indicates the legs pivot around a central point when spread apart thus forming a “V”. A “U” base has legs that slide away from the mast and remain parallel to each other when spread. Power means the base legs are spread in and out through the use of the hand control and the electric motor. With a manual base, the legs are spread with a bar that's moved by hand or a foot control.
15. **Base length** - This is the length of the base from the mast to the end of the legs. This feature may be important if the lift is used in tight spaces such as the bath or shower room.
16. **Base width adjustment range** – All the lifts have an adjustable base where the legs can be moved in and out to allow the lift to be positioned around chairs, commodes, etc.
17. **Height of base legs** – This height may be important if the lift needs to be positioned under a very low bed or stretcher. Some lifts can be lowered further with smaller casters.
18. **Type of sling bar** – The sling bar is the part of the lift where the sling attaches to the boom. A four-point sling bar means the sling is attached at four separate points, a three point at three points, etc. Some lifts utilize a pivoting frame that's attached to the sling bar. Attached to the pivoting frame is a handle that can be used to position the resident in a reclined or upright seated posture during the transfer.
19. **Type of sling** – A one-piece sling is standard, however, some lifts do offer a two piece sling for residents with very limited flexibility. Those lifts that use a pivoting frame use a key lock system, which has plastic end-attachments that secure the sling to the sling bar and are used in place of an end loop. Some slings can wrap under or between the resident's legs depending on the how the caregiver wants to position that individual.
20. **Sling color-coded** – Many of the slings are color coded by size (e.g., yellow = small, red = medium, etc.) either by trim on the sling, color-coded sling handles, loops, or tags.
21. **Sling material** – A variety of materials are used, and each may have different washing and drying requirements. Some slings also have plastic stays in the head support, which must be removed before laundering.
22. **Sling laundering** - Depending on the material, the sling may have certain laundering restrictions. For those nursing homes that send their slings to a laundry service this may be an important consideration.
23. **Sling easily removed** – The standard bed-to-wheelchair sling had to be easy to remove from underneath the resident after they had been transferred to the chair. Sling removal involved pulling the sling out from underneath while lifting the resident's thighs and then leaning the resident forward and pulling the sling up and out from behind the resident.

24. **Sling head and neck support** – Adequate head and neck support is especially important for residents who don't have the strength to keep their head upright. Some slings utilize plastic stays that are embedded in pockets to provide additional support.
25. **Sling stretcher adapter** – A stretcher adapter allows the resident who needs to remain horizontal to be transferred.
26. **Peak push force** – The peak force is the force required to initially push the lift. Once the lift is moving, even less force is required.
27. **Height of handles** - This is the height from the floor to the bottom and top of the handles used to push/pull the lift. Longer vertical handles (those with the greatest distance between the top and bottom of the handle) will accommodate a larger percentage of shorter and taller caregivers.
28. **Minimum storage space** - This is the minimum amount of space needed to store the lift (with the boom lowered and the base retracted fully). The amount of space needed could be important in facilities with limited storage area.
29. **Diameter of casters** - The diameter of the casters was measured because in general, larger casters require less force to push/pull and maneuver.
30. **Brakes** - Brakes are used to lock the rear wheels in place during certain transfer situations.
31. **Battery type** - Rechargeable lead acid or gel cell batteries are used in all of these lifts.
32. **Battery recharge time** - Depending on the battery, it can take anywhere from one to six hours to fully recharge. Some batteries can also be recharged in 5-10 minutes to get a few more lifts if needed.
33. **Battery life** - The number of lifts per charge is highly dependent on the weight of the resident transferred and if a powered base is used (powered bases require additional battery power to adjust the legs in and out). Therefore, the number of lifts per charge is very approximate. The total life of the battery also depends on usage and varies from nine months to three years.
34. **Low battery indicator** - All lifts were equipped with a low battery indicator, although the amount of charge left in the battery when the indicator came on varies. In general, the lifts have either a lighted indicator or auditory warning or both.
35. **Battery replacement cost** - This is the cost to purchase a new battery once the original(s) can no longer hold a charge. Ask the vendor if the battery can be purchased at a retail store rather than only from the vendor. If the battery can be purchased at a retail store it's often cheaper.
36. **New lift delivery time** - Depending on where the lift is manufactured and assembled, delivery time can vary from one day to four weeks.
37. **Warranty** - Some manufacturer warranties cover all parts for a standard period, whereas others only cover certain parts for certain periods.
38. **Repair parts from** - Some sales representatives stock their own parts, whereas others rely on the manufacturer to supply parts.
39. **Average repair time** - Average repair time was based on the sales representative's estimate of how long a typical repair takes maintenance staff once the replacement part is delivered.

- 40. **Loaners available** - Loaners are available in case extensive service or replacement is required.
- 41. **Zero-lift program offered** - In addition to selling total body lifts, most manufacturers also offer additional assistance to facilities to reach the goal of zero or no lifts. This assistance can be in the form of an audit or evaluation of the facility to determine the ideal quantity of lifts, in-service on the use of the lifts, recommendations on additional needs to reach zero lift, etc.
- 42. **Leasing** - Leasing is also an option if the up front cost of a lift(s) is prohibitive.

NOTE: THIS PUBLICATION HAS BEEN MODIFIED FROM THE ORIGINAL VERSION.