

PATIENT HANDLING (LIFTING) EQUIPMENT COVERAGE & SPACE RECOMMENDATIONS

**For additional information, contact:
Mary Matz, MSPH, CPE
VHA Patient Care Ergonomics Consultant
(813) 558-3928**

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INTRODUCTION

Health care providers are at high risk for musculoskeletal injuries. In fact they are one of the highest risk groups of any industry, and manual patient handling is considered to be the reason. For the caregiver, these musculoskeletal injuries not only cause pain and discomfort but can also result in life long disability. For patients, their safety may be impacted when injured staff move and lift them. As well, direct and indirect costs to the organization are huge as is the impact on the already short supply of nurses.

Research has confirmed the caregiver risk associated with patient handling. Biomechanical studies tell us that manually moving and lifting patients cannot be performed safely, that such movements exceed the biomechanical limits of workers. When these limits are exceeded, not only do muscles develop microtears, but microfractures occur to the spine, and result in the debilitating disc degeneration found in many nurses. In 2007, scientists determined that the maximum weight a caregiver should lift is 35 pounds, the weight of the leg of a man weighing 200 pounds.

Technology is now available to take the patient 'load' off of caregivers. And, in providing such technology assistance in moving and handling patients, the risk of injury for caregivers is decreased significantly, resulting in fewer and less severe injuries to nurses and other patient care providers.

Because each clinical unit, treatment area, diagnostic area, etc. includes patient populations with varying characteristics, technology recommendations will also vary. For this reason, recommendations must be developed for each unit/area included in new construction and in renovations of existing construction. This ensures the correct type and number of patient handling equipment are available on each unit as well as sufficient storage is allocated for this equipment. However, to ensure appropriate equipment decisions are made, direct patient care providers who are familiar with the characteristics of their unique patient/resident populations must be included in this process.

The following gives direction in determining design, installation, and storage requirements for patient handling equipment that are used to lift and transfer patients and residents in new and existing construction. Many other types of patient handling equipment are available, but will not be addressed as their design/space impacts are not as substantial. The patient/resident lifting equipment that will be addressed include ceiling-mounted sling lifts (Figures 1 & 2), sit to stand lifts (Figure 18), and floor-based sling lifts (Figure 19). Sit to stand lifts are used to assist in the transfers of patients/residents with some weight-bearing abilities, upper body strength, and the ability to follow simple instructions. Floor-based sling lifts and ceiling-mounted sling lifts are both used for dependent patients/residents who are unable to substantially assist in their transfers and movement, as well as in assisting in mobility rehabilitation.

This document will first address coverage and installation issues surrounding ceiling-mounted lifts, then coverage and storage issues for portable/floor-based lifts, such as sit to stand and floor-based sling lifts.

PLEASE NOTE: This document does NOT provide direction on conducting a full patient care ergonomic evaluation. Such a comprehensive evaluation is important to determine patient handling technology required to be able to implement a 'Minimal Lift' or 'Safe Patient Handling and Movement' Policy. Organizations must understand that the information provided here focuses only on design and storage requirements, and only for ceiling-mounted and portable lifting equipment. It is highly recommended to conduct a thorough Patient Care Ergonomic Evaluation that will provide recommendations for other patient handling technology and programmatic issues related to patient handling. Information on safe patient handling, conducting complete ergonomic assessments, and other patient handling technology not included here, can be found at <http://www.visn8.med.va.gov/patientsafetycenter/safePtHandling/default.asp> or by contacting Mary Matz at (813) 558-3928.

CEILING-MOUNTED SLING LIFTS

Figure 1.



Figure 2.



1. CEILING LIFT COVERAGE REQUIREMENTS By UNIT/AREA

- Definitions:
 - Ceiling Lift SYSTEM refers to the lift unit that performs the lifting function and includes the motor, strap, and hanger bar.
 - Ceiling Lift TRACK refers to the pathway on which the lift system moves.

Step 1. Determine ceiling lift system and track coverages needed in each UNIT/AREA

- Use Table 1 to determine the following.
 - Ceiling Lift SYSTEM Coverage:
 - Ceiling Lift ‘System’ Coverages relay the percentage of PATIENTS who should be covered on the particular unit in question.
 - **Because patient/resident characteristics of clinical units/areas vary widely, it is critical to base ceiling lift purchase decisions on these characteristics. Insufficient coverage will result in increases in risk of staff and patient injury.**
 - **For those clinical units/areas that specify a range (e.g., 30 – 100%), determine coverage as instructed in Step 2, using patient/resident characteristics to direct coverage requirements.**
 - Ceiling Lift TRACK Coverage:
 - Ceiling Lift “Track” Coverages relay the percentage of ROOMS that should be covered on the particular unit in question.
 - 100% CL Track Coverage is recommended in many areas proactively, as Ceiling Lift requirements are expected to increase and installation costs are minimized when included in new and renovation construction projects. (See Section 3, page 10.)