

BACK INJURY PREVENTION TIPS

Approximately one million people lose time from work each year due to back injuries.¹ Musculoskeletal disorders (MSDs) of the low back and upper extremities are not only an important national health problem; these disorders also impose a substantial economic burden in compensation costs, lost wages and productivity. Direct and indirect costs associated back injuries in the healthcare industry alone are estimated to be \$20 billion annually.² Additionally, compared to other occupations, nursing personnel are among the highest at risk for musculoskeletal disorders.³

Lifting and moving patients and equipment is a routine part of the job for most healthcare workers. Knowing how to perform these tasks safely may help reduce injuries to both the worker and the patients in their care. This bulletin identifies some of the back injury risk factors and provides steps that may help to minimize injury potential.

BACK INJURY RISK FACTORS

The risk factors associated with back injuries come from a combination of work-related activities, non-work activities and the physical and psychological characteristics of the individual. To reduce the work-related risks of lifting and moving items and/or patients, consider the following factors when designing, planning and organizing work tasks:

- Limit the weight of a lift to 35 pounds or less.⁴
- Reduce the reaching distance
- Keep the heaviest side of the load next to the body.
- Adopt a stable position with feet apart and one leg slightly forward to maintain balance.
- Use a handle for a secure grip or hug the load as close to the body as possible, balance the weight being lifted on both arms.
- Start and end lifts as close to waist height as possible.
- Maintain posture with slight bending of the back, hips and knees; lift the load as the legs begin to straighten (lift with the legs, not with the back).
- Avoid twisting the torso - if turning is required, move the feet as the object/patient is carried.
- Reduce the number of times a lift must be repeated.

A visual way to remember some of these tips is to think of a baseball batter and keep the lift within the “strike zone” of the employee.



Tips for Patient Handling

Handling and moving patients is one of the more difficult tasks undertaken by emergency service personnel. Moving and handling patients without the needed resources could put the patient and those attempting to move the patient at risk for injury. Consider the following best practices to help reduce these risks.

Administrative Controls

- Identify and communicate the maximum weight that both the patient lifting equipment and ambulances can accommodate.
- Assess the patient's size and weight including the weight of the equipment.
- Assess the patient's ability to assist and support their own weight.
- Know the limitations of the equipment.
- Know who (and when) to contact for assistance.
- Provide for patient dignity where appropriate.
- Develop guidelines for assessing risks not directly related to patient health.

Environmental Observations

- Evaluate:
 - » Hazards that may inhibit moving the patient safely (plush carpet, inclined surfaces, small spaces, narrow hallways, etc.).
 - » Location of the patient.
 - » The ability to get the patient handling/lifting equipment near the patient.
- Select and utilize the proper lifting device.

Lifting and Moving the Patient

- Know each individual's physical abilities.
- Attempt to coordinate physical abilities with a partner and apply it to the situation accordingly.
- Think through the dynamics of the lift before attempting to move the patient.
- Lift as a team (communicate).
- Avoid awkward positions as much as possible and use leverage more than muscle strength.
- Consider extra assistance or support if it is known the patient resists being moved or transferred.
- Use proper lifting techniques and keep the weight close to the lifter's body.

SUMMARY

Understanding the primary work-related risk factors that increase the chance of a back injury is the first step in evaluating work tasks. Applying lifting task risk reduction tips to the work task design may help reduce the potential for injury to the lower back. Educating employees in these back injury risk reduction principles may help them to assess and alter their daily tasks to further reduce the potential for work-related back injuries.

REFERENCES

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- ³ The National Institute for Occupational Safety and Health (NIOSH) (n.d.). Musculoskeletal Health Program. Retrieved on January 17, 2023 from <https://www.cdc.gov/niosh/programs/msd/description.html>
- ⁴ National Institute of Occupational Safety and Health (1996). Revised NIOSH Lifting Equation. [Online] Retrieved from <https://www.cdc.gov/niosh/nioshtic-2/00238738.html>