

DESCRIPTION

Some of the most common injuries observed within the workplace are those related to materials handling tasks including lifting, pushing, and pulling. The objective of this fact sheet is to provide simple guidance to minimize the potential for injuries.

HAZARDS

Common injuries related to materials handling tasks include muscle strains and other soft tissue injuries resulting from lifting or pushing and pulling loads. Other common injuries involve crushing of fingers and toes.

GENERAL SAFE LIFTING TECHNIQUE:

- 1. Survey the route** – Ensure that the walking surfaces are level, wide enough, clean, and dry and that there are no closed doors or other obstacles.
- 2. Size up the load** – Ensure that the load is within an acceptable weight (in general – less than fifty pounds), is not too awkward and will not block vision. Use a hand truck or cart if possible.
- 3. Make the lift** – Stand as close to the load as possible and face it squarely. Bend at your knees, while keeping the back straight. Lift slowly and steadily using your legs, not your back. Keep the load close to the body and avoid twisting.



- 4. Carry the load** – Keep the load close to the body and between your waist and shoulders. Walk slowly and maintain firm footing. Use your feet to change directions. Avoid twisting at the waist.
- 5. Set it down** – While keeping your head up, squat down to lower the object using your legs, not your back. Avoid twisting and bending at the waist.

LIFTING TECHNIQUE – AWKWARD LOADS



Injuries commonly occur while attempting to lift awkward-shaped objects. While the weight of the object may be within an acceptable range, the shape or configuration of the object prevents the proper lifting technique from being employed.

When an awkward-shaped object requires lifting, simply ask someone to lend a hand. Discuss the lifting plan with your helper and clearly communicate all actions during the task, for example – “Lift on the count of 3”, etc.

LIFTING TECHNIQUE – SACKS



1. Lean the sack onto your kneeling leg.
2. Slide the sack up onto your kneeling leg.
3. Slide the sack onto the other leg while keeping the sack close to your body.
4. As you stand up, keep the sack close to your body.

HANDTRUCKS

1. Plan the route. Avoid curbs and stairs and have someone control doors.
2. Do not overload the truck. Make multiple trips if necessary.
3. Push - do not pull the hand truck to the destination.

PERSONAL PROTECTIVE EQUIPMENT

Gloves - The use of gloves, particularly mechanics gloves that have padding on the knuckles and back of the hand, will minimize the potential for minor cuts, scrapes and impact injuries that commonly occur while lifting and carrying objects. Contact EHRS for glove selection recommendations.

Shoes - Well-constructed, sturdy shoes are required for materials handling tasks. Open toe shoes and sneakers are not appropriate. Depending upon the types of tasks performed, safety shoes may be required. Please contact EHRS to evaluate tasks and determine if safety shoes are required.

Back Belts - The National Institute for Occupational Health & Safety has determined that the use of back belts is not recommended to prevent injuries among uninjured workers and does not consider back belts to be personal protective equipment. If you feel a back belt is needed, please contact EHRS to evaluate the task.

EHRS SERVICES

The most effective way to reduce the likelihood of back injuries is through the development and implementation of a comprehensive ergonomics program. EHRS will evaluate tasks and provide training and recommendations for administrative procedures, engineering controls and personal protective equipment. A helpful video that demonstrates safe lifting and materials handling techniques entitled "Protecting Your Back" is available for viewing in Penn's Knowledge Link online training system.

REFERENCES

1. Centers for Disease Control - National Institute for Occupational Health and Safety – NIOSH Publication No. 2007-131 [Ergonomic Guidelines for Manual Material Handling](#).
2. Center for Disease Control, National Institute for Occupational Health and Safety – Publication No. 94-127 [BACK BELTS--Do They Prevent Injury?](#)
3. [EHRS Ergonomics web site](#).