Safe Lifting and Carrying
PART 1 – Basic Lifts

Proper lifting and handling will help protect against injury and make your job easier. It takes training and practice to do it right.

The following are basic steps in safe lifting and handling.

Plan Your Move

› Size up the load and make sure your path is clear.

› Do not attempt to lift the load alone if it is too heavy or awkward. GET HELP!
› Keep the load close to your body.

 › Use your thigh and leg muscles, not your back, as you lift in one smooth movement.
Principles of Lifting

- Have feet shoulder width apart, with the load between them.
- Get a firm grip on the load.

- Keep your arms and elbows close to your side.
- Bend your knees and hips keeping your back straight.
Safe Carrying

- Keep a good grip on the load.
- Keep the load close to the body.
- Keep loads at a reasonable height so you can see where you are going.

- Pivot with your feet – don’t twist your back when carrying loads.
Lower Material Slowly and Smoothly

- Use the lifting principles but in reverse.
- When lowering a load onto a deep shelf, put it on the edge of the shelf and push it into place.

- Push rather than pull.
  - If a person pulls while facing in the direction of travel, the arm is stretched behind the body, placing the shoulder and back in a mechanically awkward posture, increasing the likelihood of injury.
  - Research demonstrates that people can usually exert higher push forces than pull forces.
- Pull rather than carry.
Mechanical Devices
- When a load is too heavy and help is not available, use mechanical equipment.
- Lift trucks, push carts, hoists, conveyors, and trolleys are made for this purpose.

PART II – Modified Lifts
The following lifting techniques may be required in circumstances that make lifting awkward.

Two-Person Lift
- Both persons should be about the same height.
- One person takes charge of the lift, so that you are working together not against each other.
- Lift together, walk in step and lower the load together.
Golfer’s Lift
Use the golfer’s lift to pick up light, small loads when you can’t bend your knees or get close to the object.

- Swing one leg straight out behind you.
- Keep your back straight while your body leans forward.
- To help support your body, place one hand on your knee or on a nearby solid object.

One-Person Lift – Sheets
- Use extra care to avoid twisting the spine.
- If your arm span is less than that of the load, GET HELP.
- Adjust your hands to get the best hold possible.
- Use your whole hand not just the fingers (power grip).
- Use the leg and thigh muscles, not your back to lift the load.
- Lift the sheet onto a platform to get a better grip for carrying.
- Lower the sheet using lifting techniques in reverse.
One-Person Lift – Long Loads

- Straddle one end of the load, grasping it with both hands.
- Stand up, raising the load to an upright position.
- Stand close to the load and lower your body to a comfortable level.
- Lean the load against your shoulder.
- Straighten up and set it upright on a platform.
- Bend the knees until your shoulder is level with the centre of gravity of the load.
- Lift using your thigh and leg muscles.
- Long loads can be dragged, or rolled on edge, after being placed in an upright position.
Two-Person Lift – Long Loads

- Extra care is required as long loads are difficult to control.
- One lifter takes charge of the lift.
- Both lifters start at the heavier end of the load.
- Bring one end of the load up to shoulder height.
- One lifter takes the weight on his/her shoulder, while the second goes to the opposite end and lifts it onto a platform and then onto his/her shoulder.
One-Person Lift – Sacks

- Stand at one end of the sack.
- Lift it to an upright position.
- Straddle the load. Place one hand under the bottom of the sack and use the other to hold the sack against your body.
- Bend the knees and lift the sack onto a platform.
- Stand as close to the lifting platform as possible.
- Bend the knees until the load can be balanced onto your shoulder.
- Straighten up in one smooth movement.
- If the sack is small, place it in a box with handles and carry.
Or

- Place your back against the elevated sack, feet comfortably apart, one in front of the other.
- Hold the sack at the top, making sure that it doesn’t slip through your hands.
- Place your shoulder against the sack, tilting it forward while taking the weight.
- With one smooth movement, straighten your knees and move forward.

Two-Person Lift – Sacks

Standing on each side of the upright sack:

- One person takes charge.
- Grasp the bottom corner with one hand, and the upper corner with the other.
- Get a good grip.
- Lift together.
- Use your legs and thigh muscles, not your back.
One-Person Lift – Barrels and Drums

- Raise the drum to an upright position using the principles of lifting (discussed on page 10).
- Extra care is needed when the drum is almost upright, due to shifting of the contents.
- Grasp the top rim of the drum, use the bottom rim to manoeuvre it into a balanced position or onto a mechanical device.

PART III – Additional Tips To Ensure Safe Lifting And Carrying

Wear appropriate clothing and safe, comfortable shoes:

- Wear clothes that are comfortable around your hips, knees and shoulders.
- Avoid wearing clothes with exposed buttons or loose flaps.
- Shoes should be sensible, non-slip with broad based low heels.
- Wear safety shoes where a potential for foot injury exists.
Keep yourself fit for work:

- Exercise regularly – about 20 minutes at least three times/week.
- Consult your doctor before starting any exercise program.

A few quick tips to keep your body fit:

- Use the stairs, not the elevator.
- Walk instead of driving.
- Stretch or exercise between TV shows.
- Get adequate sleep on a good mattress.
- Eat sensibly.
Safe Lifting and Carrying

As part of IAPA's mission to inform and educate, IAPA permits users to reproduce this material for their own internal training and educational purposes only. For any other purpose, including use in conjunction with fee for service or other commercial activities, no part of this material may be used, reproduced, stored in a retrieval system, or transmitted in any form or by any means, electronic, mechanical, photocopy, recorded, or otherwise, without the express prior written permission of the Industrial Accident Prevention Association.

The information contained in this material is provided voluntarily as a public service. No warranty, guarantee or representation is made by IAPA as to the correctness, suitability, fitness, or sufficiency of any information contained in this material. Use of this material means that the user agrees that IAPA and its employees will not have and are released from any liability whatsoever, however caused or arising, in connection therewith. Users also acknowledge that it cannot be assumed that all acceptable safety measures are contained in this material or that additional measures may not be required in the conditions or circumstances that are applicable to the user or his/her organization, and that the user will personally make his/her own assessment of the information contained in this material.

While IAPA does not undertake to provide a revision service or guarantee accuracy, we shall be pleased to respond to your individual requests for information.

Revised: May 2008

Industrial Accident Prevention Association
Toll-free: 1-800-406-IAPA (4272)
Website: www.iapa.ca