

What is the Best Way to Lift a Heavy Load?

Team lifting is often used as a control to move heavy objects. But is team lifting an adequate control for manual material handling? On the surface the answer seems like a no brainer: two people can lift more weight than one person, three people can lift more than two people, and so on. And there are benefits to team lifting:

- The load being lifted can be reduced by half or more.
- A heavy and oddly shaped load can become more manageable to lift.
- It is virtually a no-cost solution to a heavy lifting problem.



Photo by SMSgt David H. Lipp, courtesy of the U.S. Army

Soldiers carry a section of a collapsible barrier in Fargo, ND.

However, from an ergonomics perspective team lifting is not the preferred approach as it brings its own risks. Injury may occur due to:

- Workers not being matched in size, physical strength, or experience.
- Workers not exerting force simultaneously.
- Workers not sharing the weight being lifted equally.
- A change in balance occurring if one team member loses his or her grip or balance.
- Increased risk of a slip, trip, or fall.

Team lifting is an administrative control. This type of control is a management work practice or policy designed to reduce work-related musculoskeletal disorders (WMSDs) by changing the way work is assigned or scheduled. Although administrative controls can reduce the exposure to ergonomic stressors, they do not minimize or eliminate injury risk as well as an engineering control.

The preferred way to perform a lifting task is not through use of more manpower, but through the use of engineering controls that take the force out of the lift. Task redesign and/or use of mechanical aids are the best solution when it comes to lifting heavy objects.

Things to Consider Before Performing a Team Lift

- Use team lifting as a temporary measure until a more permanent improvement can be found.
- Discuss the lifting plan among all team members.
- Match the physical characteristics of the individuals (height, lifting capability, experience) before performing the lift.
- Use engineering controls to assist in the team lift. The use of portable handles, grips, and loading straps can usually turn a heavy load into something more manageable.
 - Portable handles that slide underneath a heavy square or rectangular box can help distribute the weight of the load across as many people as can fit down the length of the object.
 - Grips should be compressible, nonconductive, and smooth to increase comfort, safety, and performance.
 - Loading straps—a type of harness that fits around both the body and the object to be lifted—also help distribute the weight of the load. Take extra care when going up or down stairs, as the movement of the straps on the object itself could pull a worker on the high side down from a standing position and cause him or her to be trapped or injured.



Photo by PFC Kissla Felder, courtesy of the U.S. Army
Soldiers help carry a litter 500 meters during the 1-73 Cav's "Stress Shoot" competition at Fort Bragg, NC.