

FS No. 88-050-0821

MANUAL MATERIAL HANDLING—LIFTING AND LOWERING TASKS

A poorly designed material-handling task is one where the strength requirements to complete the task exceed the strength capabilities of most workers. Simply put, most workers would not be able to perform the task without overexertion. Poorly designed tasks generally require workers to lift, lower, push, pull, or carry heavy loads. These tasks may also include excessive bending, reaching, or twisting of the body.

The following recommendations reduce the exposure to manual material handling-related risk factors:

1. Lifting or lowering an item with two hands.
2. Exerting forces in neutral postures, avoiding movements to the side, overhead, or at extended reaches.
3. Lifting, lowering, and carrying objects that can be held close to the body.
4. Handling or lifting materials less than three or four times per minute during an 8-hour work shift.
5. Handling items that place low pressure on the hands from rounded edges.
6. Lifting and carrying items on walkways that are unobstructed, well illuminated, not slippery, wide, and free of vehicle and/or pedestrian traffic.
7. Lifting or lowering objects in work areas that minimize twisting the torso (e.g., lifting and twisting in one motion).
8. Lifting and lowering with smooth motions.
9. Handling easy-to-grasp items (e.g., with handles).
10. Pushing or pulling items rather than carrying.
11. Lifting or lowering below shoulder height.
12. Lifting or lowering between chest and mid-thigh height.



Source: U.S. Army photo by Sgt. Luke Wilson. Cleared for public release.

Finding Solutions to Safely Performing Materials-Handling Tasks:

APHC FS No. 88-033-0821, Manual Material Handling—Lifting and Lowering

APHC FS No. 88-034-0821, Push-Pull Tasks

APHC FS No. 88-035-0821, Ergonomics—Safely Carrying Heavy Loads
