



LIFTING TECHNIQUES



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ERGONOMICS PROGRAM

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COMMON LIFTING PROBLEMS:

SOLUTIONS:

1. Lifting with back bent and legs straight.	Keep back straight and bend your knees!
2. Holding load too far from body.	Hold load as close to the body as possible.
3. Twisting while lifting.	Redesign the lift to avoid twisting. Turn your body using your feet. (See Pivot Technique.)
4. Losing balance during a lift because: <ul style="list-style-type: none"> Your feet are too close together. The load is uneven or unstable. The load is too heavy. 	<ul style="list-style-type: none"> Keep a wide, balanced stance with feet generally shoulder width apart, or wider. Test the load before you lift. If the load is uneven, then <ul style="list-style-type: none"> - Redistribute the load. - Use the Tripod lift. - Get help to lift the load. If the load is too heavy, find: <ul style="list-style-type: none"> - Another person to help. - A mechanical lifting aid.
5. Contorting the body in order to lift and carry loads in cluttered areas.	Plan the move: inspect the pathways and destination to ensure that they are clear before you begin the lift.
6. Poor coordination between two or more people during the lift.	Communicate! Plan the lift together in order to coordinate your actions.

AS YOU LIFT, *Always...*

- Keep the load as close to you as possible.
- Keep your back straight.
- Turn your feet outward and push your buttocks out. (Picture a professional weight lifter.)
- Bend your knees.
- Keep your head forward. Your lift will be more balanced and the curves in your spine will stay balanced and aligned.
- Breathe out as you lift.



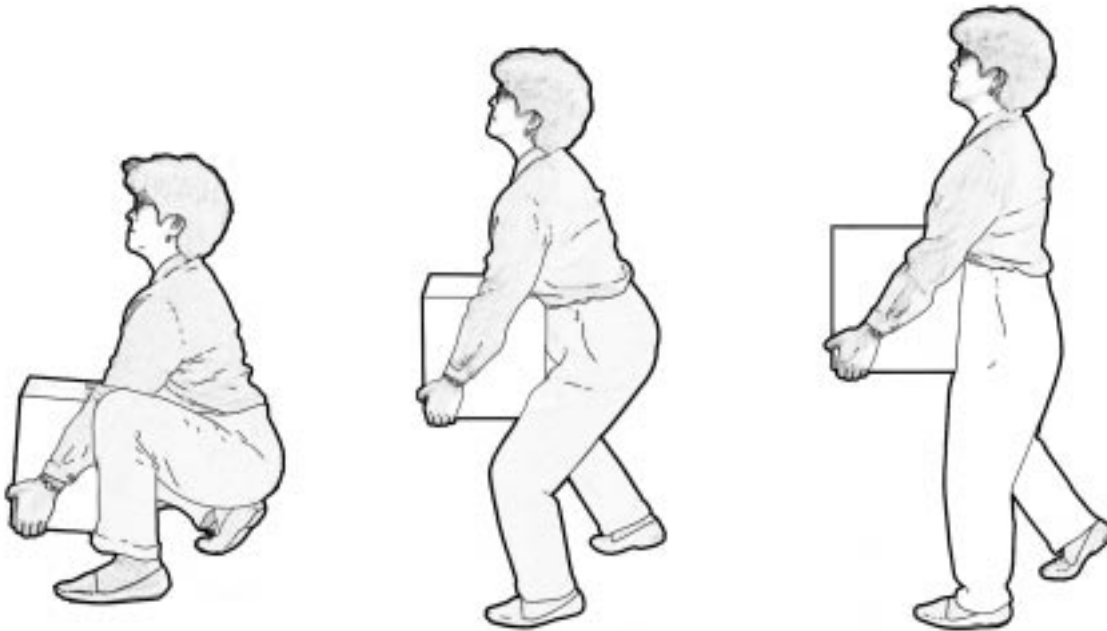
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Basic Lift (Diagonal Lift) - This lift is the most common method of good lifting technique. Use the basic lift for objects small enough to straddle where you have enough room to use a wide stance.



1. Get close to the object.
2. Stand with a wide stance: put one foot forward and to the side of the object.
3. Keep your back straight, push your buttocks out, and use your legs and hips to lower yourself down to the object.
4. Move the load as close to you as possible.
5. If the box has handles, grasp the handles firmly and go to step 9.
6. Put the hand (that is on the same side of your body as the forward foot) on the side of the object furthest from you.
7. Put the other hand on the side of the object closest to you. Your hands should be on opposite corners of the object.
8. Grasp the object firmly with both hands.
9. Prepare for the lift: look forward.
10. Lift upwards following your head and shoulders. Hold the load close to your body. Lift by extending your legs with your back straight, your buttocks out, and breathe out as you lift.

If you are doing this lift correctly, your head will lift up first, followed by your straight back. If your hips come up first and you must bend your back as you straighten up, you are doing this lift incorrectly.



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Power Lift - Use the power lift for objects too large for you to straddle. This lift is very similar to the basic lift. In the power lift, the object shifts your center of gravity forward, and you must push your buttocks out to compensate. (Professional weight lifters lift using this position.)



1. Put one foot in front of the other using a wide stance.
2. Keep your back straight, push your buttocks out and use your legs and hips to lower yourself down to the object.
3. Move the load as close to you as possible.
4. Grasp the object firmly with both hands.
5. Prepare for the lift: look forward.
6. Lift upwards following your head and shoulders. Hold the load close to your body. Lift by extending your legs with your back straight, your buttocks out (exaggerate this position), and breathe out as you lift.



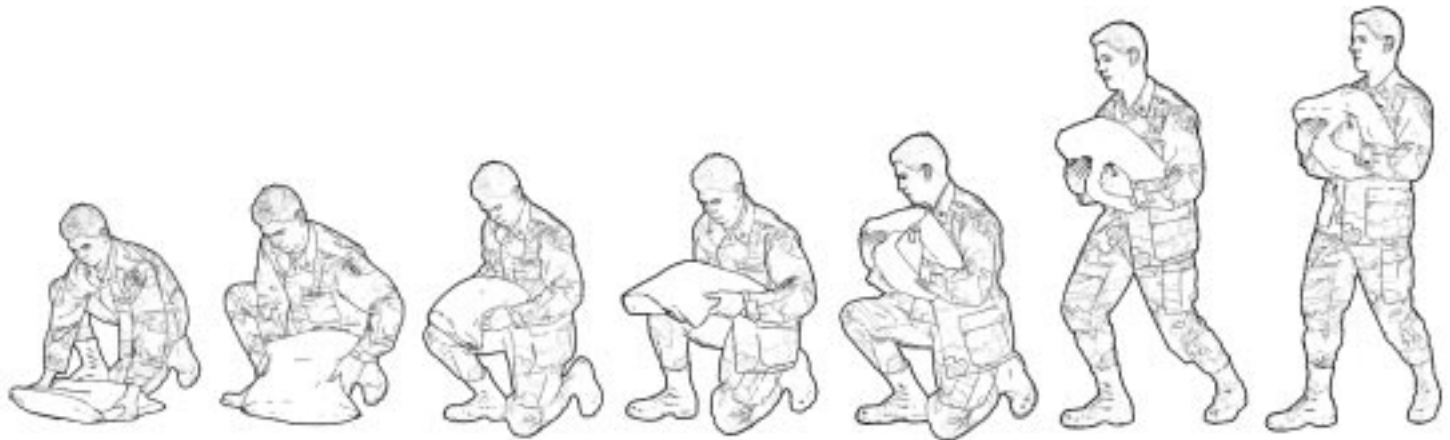
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Tripod Lift - Use the tripod lift for objects with uneven weight distribution (example: sacks of food).
Recommended for people with decreased arm strength. Not recommended for people with bad knees.



1. Put one foot next to the object. Keep your back straight, push your buttocks out and slowly lower yourself down onto one knee. (For support as you lower yourself down, put one hand on a stool or on your thigh for support.)
2. Position the object close to the knee on the ground.
3. Grasp the object firmly with both hands.
4. Slide the object from the knee on the ground to mid-thigh. Keep your head forward, your back straight, and your buttocks out, and lift the object onto the opposite thigh.
5. Put both of your forearms under the object (with your palms facing upward) and hug the object to your stomach and chest.
6. Prepare for the lift: look forward.
7. Lift upwards following your head and shoulders. Hold the load close to your body. Lift by extending your legs with your back straight, your buttocks out, and breathe out as you lift.



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Partial Squat Lift - Use the partial squat lift for small light objects with handles close to knee height.



1. Stand with the object close to your side.
2. Place your feet shoulder width apart, with one foot slightly ahead of the other.
3. Place one hand on a fixed surface (such as a table or stool) or on your thigh.
4. Keep your back straight, push your buttocks out and slowly lower yourself down to reach the object's handles.
5. Prepare for the lift: grasp the object and look forward.
6. For support as you lift, push down on the fixed surface (or on your thigh).
7. Lift upwards following your head and shoulders. Lift by extending your legs with your back straight, your buttocks out, and breathe out as you lift.



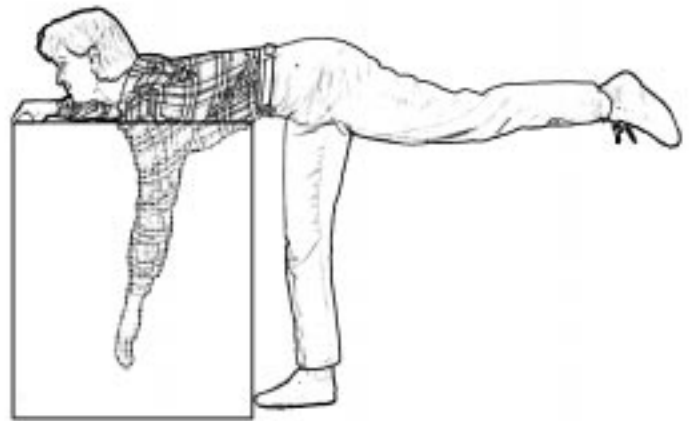
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The Golfers' Lift - Use the golfers' lift for small light objects in deep bins and to pick small objects off the floor. *Recommended for people with knee problems or decreased leg strength.*



1. Place hand near the edge of a fixed surface (such as the edge of a table or bin). This hand will support your upper body during the lift.
2. Keep your back straight and raise one leg straight out behind you as you lean down to pick up the object. The weight of your leg will counterbalance the weight of your upper body.
3. Grasp the object firmly.
4. Prepare for the lift: look forward. Keep your leg raised as you initiate the lift.
5. To lift, push down on the fixed surface as you lower your leg. Keep your back straight and breathe out as you lift.



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Straight Leg Lift - Use the straight leg lift when obstacles prevent you from bending your knees. *Be careful! Lifts over obstacles that prevent you from bending your knees put you at increased risk for muscle strain. If possible, avoid this lift. Only use this lift when absolutely necessary (i.e. lifting out of a grocery cart, car trunk).*



1. Stand as close to the object as possible with knees slightly bent.
2. Do not bend your waist! Push your buttocks out.
3. If the obstacle (preventing you from bending your knees) is stable, lean your legs against the obstacle for support. Use your legs and hips to lower yourself down to the object.
4. Grasp the object with both hands.
5. Grasp the object firmly with both hands.
6. Prepare for the lift: look forward.
7. Lift upwards following your head and shoulders. Hold the load close to your body. Lift by extending your legs with your back straight, your buttocks out (exaggerate this position), and breathe out as you lift.



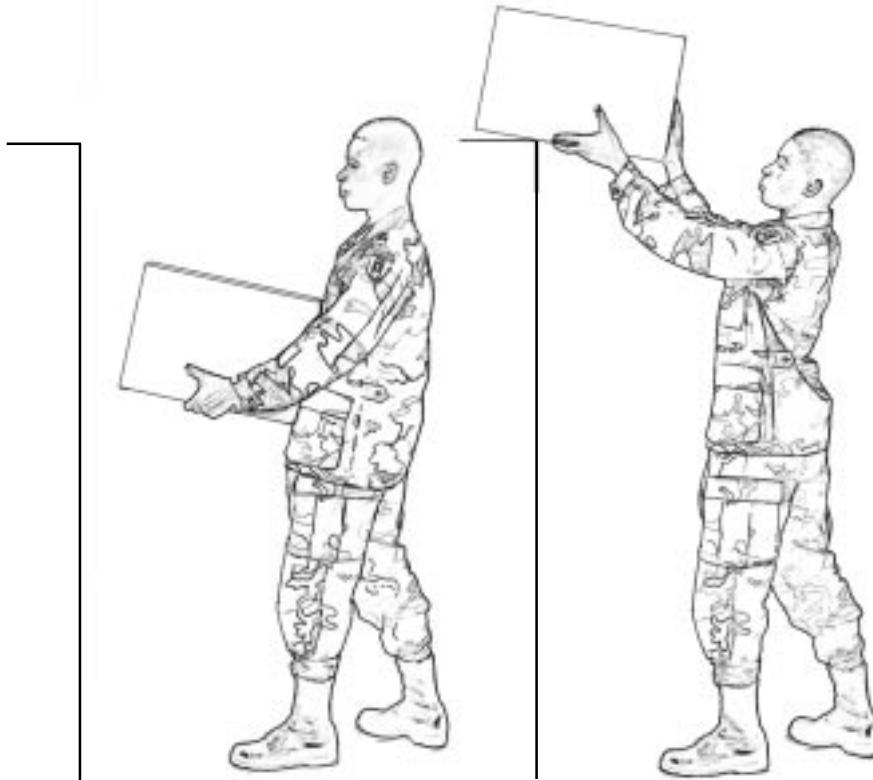
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Overhead Lift - Use the overhead lift to place objects on an overhead shelf. This lift begins with the object in your hands. *Be careful! Overhead lifts put you at increased risk for muscle strain. It can be difficult to maintain balance during the lift. If possible, avoid this lift. Only use this lift when absolutely necessary.*



1. Hold the object very close to your body.
2. Keep feet shoulder width apart, one foot slightly ahead of the other.
3. Prepare for the lift: look forward.
4. Raise the object to shelf height using the arm and shoulder muscles. Keep the object close to your body and breathe out as you lift.
5. As you reach the shelf, slowly shift your weight from your back foot to your forward foot. Keep your back straight.
6. When the load reaches the edge of the shelf, push the object onto the shelf.



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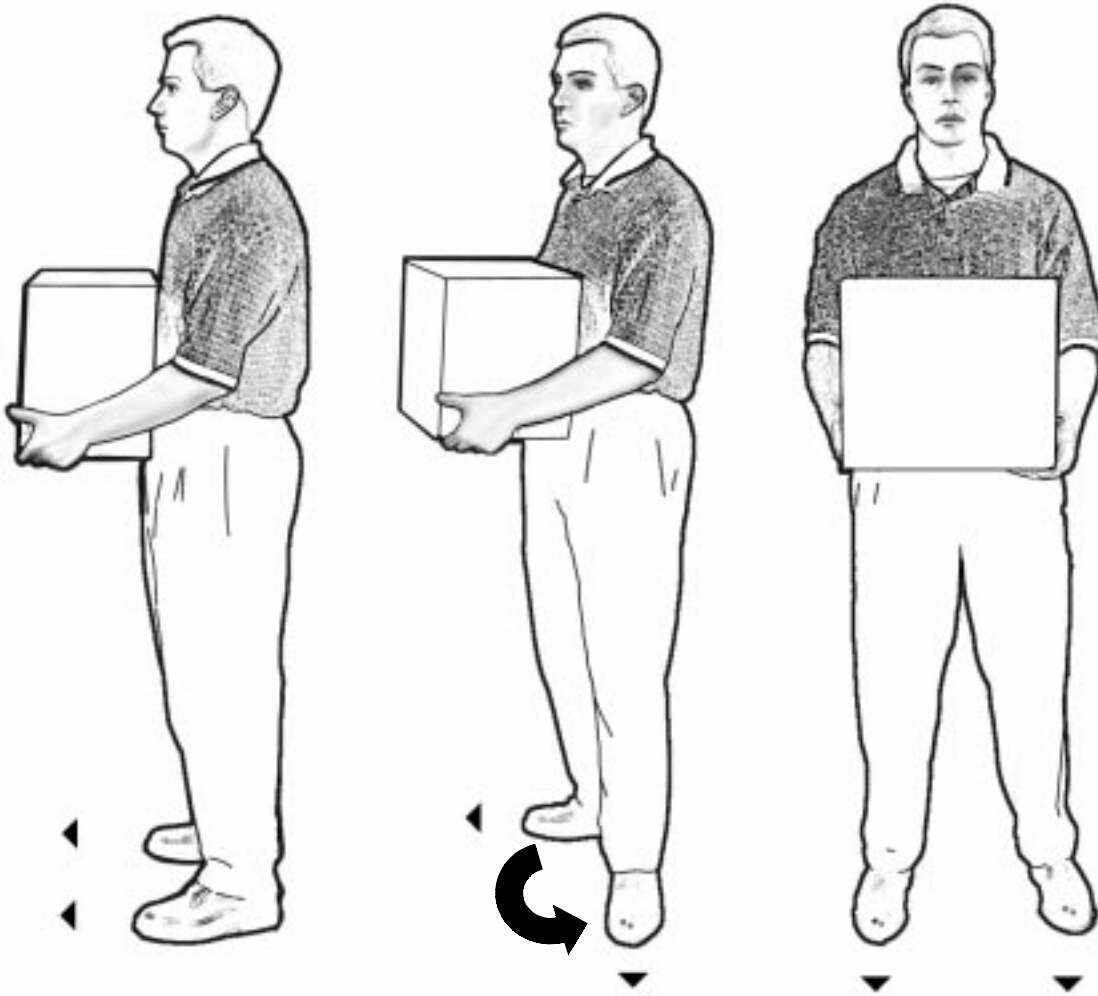


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Pivot Technique - When you must lift an object and then turn to carry it away, it is common to twist the body. Twisting *while* lifting can cause serious damage to the tissues of the back. Use the pivot technique to avoid twisting while lifting.



1. Lift the load using any of the previous techniques.
2. Hold the load very close to your body at waist level.
3. Turn the leading foot 90 degrees toward the direction you want to turn.
4. Bring the lagging foot next to the leading foot. Do not twist your body!