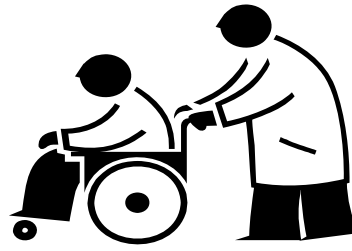


# Lifting &



# transferring

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## Teaching plan

*To use this lesson for self-study, the learner should read the material, do the activity and take the test. For group study, the leader may give each learner a copy of the learning guide and follow this teaching plan to conduct the lesson. You may copy certificates for everyone who completes the lesson.*

### Objectives:

A participant in this lesson will be able to:

- Demonstrate safe lifting and transferring techniques.
- Practice skills that will prevent injuries.
- Use devices to make tasks safer.

### Activity and lesson

Have learners read the three stories in the activity entitled "What is wrong in these stories?" Ask them to identify the correct and incorrect things the workers did. After they have had a chance to find all the problems, begin reviewing the material in the learner's guide.

As you talk about each item in the learning guide, give the participants an opportunity to practice the skill. Use light boxes or books to demonstrate proper body mechanics when lifting objects. Instruct workers to practice transferring each other from one chair to another, using the correct posture and procedure.

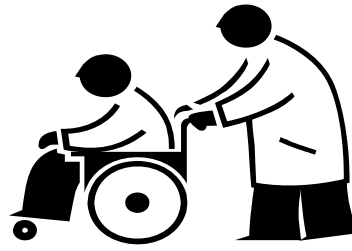
After the learners have reviewed and practiced all the procedures in the learning guide, look at the stories again and see if they can find any additional correct or incorrect actions. Be sure they identify everything before you conclude the lesson.

Answers to stories: Sharon should have bent at the knees instead of the waist; she should not have let Mr. Smith put his arms around her neck, she should not have twisted her body, she should have raised the bed to the right height, and she should not have bent over to lift his legs. If she had raised the bed to waist height after sitting him on the bed, she could have moved his legs without bending. She could have injured the client by pulling him under his arms and by not blocking his knees. She correctly locked the brakes on the bed and wheelchair, kept her feet widely spaced, and placed the chair close to the bed. Mike should not have kept his feet close together, he should not have put his hands under Mrs. Jones' arms to pull her up, and he should have locked the wheelchair's brakes. He correctly approached the client from behind the chair, but he should have bent with his knees instead of bending at the waist. In the third story, Patty should have tried to guide Mr. Smith to the floor instead of trying to stop his fall.

### Conclusion

Have participants take the test, and then review the answers together. Each participant who answers 70% correctly (at least 12 points) may receive a certificate. Answers: 1. job, worker 2. Good posture, Stretching and exercise, Proper lifting and transferring skills, Lifting equipment, Teamwork. 3. b, c, d. 4. True. 5. Posture. 6. Safety. 7. True. 8. True. 9. False. 10. True

# Lifting &



# transferring

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## Learning guide

Caring for people who are not very mobile tends to involve a great deal of lifting. You may need to assist them from the bed to the chair or the wheelchair and back to bed, and at times, you may need to help a person who has fallen onto the floor.

Improper lifting could injure your back and jeopardize your future ability to work. Do you know correct techniques for lifting and transferring that might keep you from injuring yourself or the person you are assisting?

<b>Fast facts</b>	<b>Practice preventative care</b> <ul style="list-style-type: none"><li>• Good posture</li><li>• Stretching and exercise</li><li>• Lifting &amp; transferring skills</li><li>• Proper lifting devices</li><li>• Teamwork</li></ul>
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*Ergonomics! What's that?*

Ergonomics is the science of fitting workplace conditions and job demands to the capabilities of workers. It is the science of fitting the job to the worker.

When the physical requirements of the job and the physical capacity of the worker do not match, then work-related injuries can result. Stress on the musculoskeletal system causes the majority of job injuries. Some of these muscular injuries have been linked to work habits that result in temporary or permanent disability.

Ergonomics includes:

- using equipment that will take the strain out of lifting and transferring
- organizing work in new ways, such as storing items that are used daily on easy-to-reach shelves rather than near the floor or above the shoulders
- changing how tasks are done



Ergonomics can prevent injuries by helping us understand which tasks and body movements can hurt us and by finding new ways to do these tasks.

Keeping your back strong, stretched, and healthy is good. Good posture and mobility, proper lifting skills, and exercises are very important, but they are not enough to prevent injuries. Too much lifting and lifting in awkward ways can lead to injuries. Teamwork is important so you do not lift and transfer by yourself and do not get in awkward positions to do your tasks. Proper lifting devices help prevent injuries.

## What does posture have to do with work-related injuries?

Good posture means more than just sitting up straight, particularly when speaking of protecting workers from work-related musculoskeletal disorders. How does good posture affect the musculoskeletal system? Good posture ensures that muscles will receive a good blood supply, thereby allowing the muscles to eliminate waste, receive nourishment, and repair damage caused by stress. Good posture helps the body work more effectively and efficiently.



Because the body is designed to be in motion, standing or sitting in the same position for an extended period puts strain on the musculoskeletal system as tendons are pulled and joints compressed. This leads to a reduction of the blood supply to these areas, causing inflammation and pain.

### Bad postures increase the risk of injury:

- Do not slouch.
- Do not push the head forward beyond the plane of the shoulders.
- Do not stand in an awkward position that unevenly distributes your weight.
- Do not hold the head in an awkward or twisted position.

### Good postures decrease the risk of injury:

- Sit or stand tall.
- Keep the ears over the shoulders.
- Keep the shoulders over the hips.
- Hold the head straight, not tilted.
- Position the head over the neck.
- Keep your abdomen and buttocks tucked in.



### Proper way to sit

- Always sit all the way back on a chair.

- Your lower back can be supported with a pillow.
- Try to keep your knees at the same height as your hips. If necessary, elevate your knees by putting your feet on the rungs of a chair or stool, or support your feet on a phone book.
- You may need to raise the height of the seat in order to keep your knees at the same height as your hips. If possible, adjust the height of the chair, or sit on a phone book if necessary.

### Proper way to stand

- Spread your feet at shoulder width and put equal weight on each foot.
- Put one foot up on something stable, such as the rung of a chair or stool.

### Proper way to sleep

- Never sleep on your stomach.
- Sleep on your side with the knees slightly bent and one pillow between the knees.
- When sleeping on your side, pull your pillow down toward the shoulder to support the neck.
- When sleeping on your back, place two pillows under the knees to reduce stress to the middle and lower back and the neck.
- When on your back, support the neck with a pillow under the back of the head and neck.



Poor posture can create problems by destroying the balance of the spine's natural curves. Strain on muscles adds stress to the spine that may harm the discs. Poor body mechanics upset the balance of the natural curves of the spine. Good body mechanics keep your spine balanced during movement.



## Why exercise?

Exercise relieves stress through activity. Stretching and strengthening exercises combine to balance the strength and tone of the muscles and ligaments. The muscles and ligaments are the supporting structure of the spine, so fitness benefits spinal health.

# Lifting and transferring techniques

Serious back, shoulder, and neck injuries occur as a result of poor lifting and transferring habits. Following are some tips to reduce the strain on your back and the possibility of injuries. Protecting your back is working smarter, not harder.

## General tips for lifting and transferring

- When lifting and transferring, the most important consideration is safety for yourself and the client.
- Ask for help and use teamwork. Talk to your helpers about what you plan to do, and talk to each other about what you are doing as you do it.
- When needed, use the right equipment.
- Plan the job. Move anything that is in the path.
- Maintain the correct posture: Keep your back straight and knees bent. If you must bend from the waist, tighten your stomach muscles while bending and lifting. Bending your knees slightly will put the stress on your legs, not your back.
- Never twist when lifting, transferring, or reaching. Pick up your feet and pivot your whole body in the direction of the move. Move your torso as one unit. Twisting is one of the leading causes of injuries.
- Maintain a wide base of support. Keep your feet at least shoulder-width apart or wider when lifting or moving.
- Hold the person or object close to you, not at arm's length. Holding things close to your body can minimize the effects of the weight.
- Pushing is easier than pulling because your own weight adds to the force.
- Use repeated small movements of large objects or people. For example, move a person in sections, by moving the upper trunk first and then the legs. Repeated small movements are easier than lifting things or people as a whole all at once.
- Always face the client or object you are lifting or moving.
- Always tell a client what you are planning to do, and find out how he or she prefers to be moved.



## Transferring from the bed to a wheelchair or bedside chair

- Plan the job and prepare to lift.
- Place the chair at a slight angle to the side of the bed.
- If using a wheelchair, lock both brakes. Fold up the foot pedals and remove the footrests.
- Stabilize the bed so it will not move.
- Put footwear on the client.
- Lower the bed so the client's feet will reach the floor.
- Move the person to the edge of the bed. First, move the upper trunk, then the legs one at a time.
- Place the person's legs over the side of the bed.
- Place your arms around the person, circling the back in a sort of hug.
- Raise the person to a sitting position on the side of the bed.



- Place a gait belt around the client's waist if you so desire (recommended).
- Gradually slide or "walk" the person's buttocks forward until his feet are flat on the floor. "Walk" the buttocks by grasping both legs together under the knees and swinging them gently back and forth as the buttocks move forward.
- Place your feet on both sides of the person's feet for support. Your feet should be far enough apart to give you a good base of support.
- Have the person lean forward and if possible place his arms around your shoulders. Do not allow his arms around your neck, as this can injure your neck.
- Allow the person to reach for the far wheelchair arm.
- Bend your hips and knees while keeping your back straight.
- Place your arms around the person's waist. If using a gait belt, grasp the belt at the sides of the back with both hands. Do not hold the person under the arms—this can cause injury to the client.
- Keep the person's knees stabilized by holding your knees against his.
- Pull up to lift the client, straightening your knees and hips as you both stand.
- Keep the client close to your body. Keep your knees and hips slightly bent.
- When the person is high enough to clear the armrest or chair surface, turn by taking small steps. Keep the person's knees blocked with your own knees.
- When turned, bend your hips and knees to squat, lowering the client to the seat.
- Replace the footrests. Adjust the height of the foot pedals so the person will be sitting with a 90-degree angle at the hips and knees.
- When transporting a person in a wheelchair, pull it backwards up steps or curbs.
- Follow the same principles to return the person to bed.



### If a client begins to fall

- Once a client has started to fall, it is almost impossible to stop the fall.
- Instead of trying to stop the fall, try to guide the client to the floor.
- Once the client is on the floor, get help to lift him.

### Lifting from the floor

- You might find that someone has slipped to the floor but is not seriously injured. He or she may be able to help you help him or her up.
- Always get a coworker to help you get a client up if the client cannot assist you. Assistance of four to six people may be required. When appropriate, use a mechanical lift or hoist to raise a client.
- Roll the client onto a blanket or lift sheet.
- Have two or more people stand on each side. Each person should kneel on one knee and get a secure hold on the blanket. On the count of three, everyone should lift the client and stand up, moving the client onto a bed or stretcher.



### Transferring in and out of a car

- Put the front seat of the car as far back as possible.

- Position the wheelchair at a 90° angle to the car seat.
- Bend your knees and hips in a squat.
- Place your arms underneath the person's armpits and around the upper part of his back. He may place his arms around your shoulders, not your neck. Grasp the person's upper back and do not pull under his arms. Hold him close to you.
- Straighten your legs and hips slightly as you smoothly lift the person's torso into the car, placing his buttocks on the seat. Move your feet to turn, do not twist.
- Be sure his buttocks are as far back towards the driver's side as possible before lifting his legs into the car. When lifting his legs, keep your back straight.

## Pulling a client up in bed

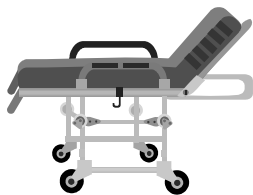
- Always get help when pulling a client up.
- Place a draw or lift sheet under the client.
- Remove the client's pillow from under his head and place it against the head of the bed to provide a cushion between the client's head and the headboard.
- Place the bed at a comfortable height for you and your coworker.
- Both you and the coworker should bend your knees and push with your feet.
- Grasp the draw or lift sheet firmly, holding the sheet close to the client's body.
- Lean in the direction you want to move the client.
- Instruct the client to lower his chin to his chest if possible. If the client cannot hold his head up, be sure the lift sheet is supporting his neck and head.
- Ask the client to bend his knees so he can assist by pushing backwards.
- On the count of three, lift the draw sheet and pull the client up.



## Pulling a client up in a chair

- Have the client fold his arms across his chest. Lock the wheelchair brakes.
- Stand behind the client, bend your knees, and wrap your arms around him, hugging his torso securely by folding your arms just under his in front.
- Straighten your legs, lifting the client's torso up and back in the chair.

## Moving a person from the bed to a stretcher



- Put the person on a lift sheet.
- Position the bed at waist height.
- Position the bed slightly higher than the stretcher and lock the brakes on both the bed and the stretcher.
- The worker pulling the client toward them should be the stronger of the two. This worker will stand on the opposite side of the stretcher and may need to kneel on the stretcher.
- Pull the client to the edge of the bed.
- Place the client's legs on the stretcher. Have the pusher kneel on the bed, holding the lift sheet.

- On the count of three, grasp the pull sheet and slide the client on to the stretcher. Do not reach across the client.

## Turning a client from side to side

- Stand at one side of the bed, with the bed raised to waist height.
- Place your arms under the client's shoulders and hips, or grasp the lift sheet.
- Pull the client to the edge of the bed, trunk first and then legs.
- Cross the client's leg closest to you over the other leg.
- Place your hands on the client's shoulder and hip closest to you.
- Lean in toward the client and push the client's torso away from you.
- Place the top leg in front of the bottom leg.
- Support the client's shoulders, back, and hips with pillows. Place a pillow between the client's legs to support the top leg. Adjust for comfort.

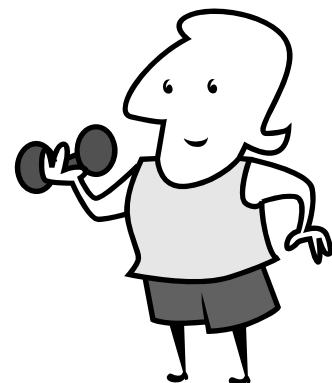
## Devices that can help you work smarter, not harder

- Draw sheets—make it easier to pull a person up in bed or move them to the side. To place a draw sheet under a client, turn the client on his or her side and lay the draw sheet on the bed. Roll half of the draw sheet up against the client. Turn the client to his other side, rolling him over the rolled-up draw sheet, and pull the rolled draw sheet out and straighten it on the bed. The lift sheet should extend from above the shoulders to below the hips and should support the neck and head if the client cannot do so.
- Bed controls—raise or lower the bed to a comfortable and safe position for you, your coworker, and the client.
- Slide boards—help to reduce friction so the client can slide from the bed to another surface.
- Trapeze over the bed—can allow clients to help you move them. They can grasp the trapeze, pull themselves up and assist as you move them.
- Gait belt—is made from heavy canvas with a sturdy buckle. Place the belt around the client's waist and use it to assist you in moving him or her.
- Mechanical lifters/hoists—can lift a client who is heavy, or one who has fallen. Ask your supervisor for instructions before using these devices.

# Conclusion

## Protect yourself

- Work in teams
- Call for support to prevent unsafe transfers
- Use lifting equipment





- Exercise to maintain a strong, healthy back
- Use proper posture and body mechanics

Most companies have an ergonomic plan to prevent back sprain and strain injuries from happening. These plans should include:

- Regular inspections to discover hazards that might lead to strain and sprain injuries
- Training for everyone on how to prevent injuries
- Safe staffing levels so workers don't get hurt lifting heavy clients alone
- Useful and safe lifting devices

Your body has natural limits. Some tasks can lead to injuries when you go beyond these limits. Jobs should be designed to fit the worker. This is ergonomics. This is working smarter, not harder.

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## What is wrong in these stories?

Sharon is helping Mr. Smith move from a chair into bed. She positions the chair close to the bed at a slight angle. She locks the brakes on both the bed and the wheelchair. She places her feet widely apart but does not block Mr. Smith's knees. She bends over, puts her hands under Mr. Smith's arms and instructs him to place his arms around her neck. She pulls Mr. Smith to a standing position, twists her body to pivot him so his back is to the bed and then sits him down on the bed. The bed's position is at the lowest level. Sharon lays Mr. Smith back on the bed, then bends over and lifts his legs onto the bed. As she straightens up, she feels a sharp pain in her back. Identify at least five things Sharon did that may have contributed to her injury, and at least two things she did that could have harmed the client. Did she do anything right?

Mike sees that Mrs. Jones has slipped down in her chair. He leans over her from the back, grasps her under the arms and pulls her up. He keeps his feet close together and stands so the wheelchair will push against his legs as it rolls backward. What did Mike do wrong? What did he do right?

Patty is walking with Mr. Smith when he begins to fall. She tries to stop the fall, but instead he pulls her to the floor with him. What should she have done differently?

# Lifting and transferring test

Name \_\_\_\_\_ Date \_\_\_\_\_ Score \_\_\_\_\_

1. Ergonomics is fitting the \_\_\_\_\_ to the \_\_\_\_\_. (2 pts.)

2. List five ways to practice preventive care for injuries. (5 points)

1. \_\_\_\_\_
2. \_\_\_\_\_
3. \_\_\_\_\_
4. \_\_\_\_\_
5. \_\_\_\_\_

3. Putting ergonomics to work might include the following. Choose three. (3 pts.)

- (a) making sure the worker is strong enough to handle a heavy client
- (b) using appropriate equipment
- (c) changing how tasks are done
- (d) organizing work in new ways

4. As a rule, you should not sleep on your stomach. True or False

5. Good \_\_\_\_\_ helps the body work more effectively and efficiently.

6. \_\_\_\_\_ for yourself and the client is the most important consideration when lifting and transferring.

7. When moving a person to the edge of the bed, you should move the upper trunk and then the legs one at a time. True or False

8. You should always face the client when you are lifting and moving him.  
True or False

9. If a client begins to fall, you should grab him and try to keep him from falling.  
True or False

10. Good standing posture includes spreading your feet to shoulder width and putting equal weight on each foot. True or False