
Lifting principles

To properly protect your back when you lift, remember the following important principles:

1. Plan ahead

First, think through exactly how you want to do the lift.

2. Keep the load close

Ensure that the load is kept as close to your centre of gravity as possible.

3. Never twist

The back is not designed to take loads when twisting.

4. Use your legs

Use your legs rather than your back to take the load, because your legs are designed to take loads.

5. Never lift higher than your chest height

Lifting too high will make your back arch backwards—a very vulnerable position.

6. Check your posture (see Figure 3 on the next page.)

6. Posture continued

Feet: place them wide apart for good solid base of support.

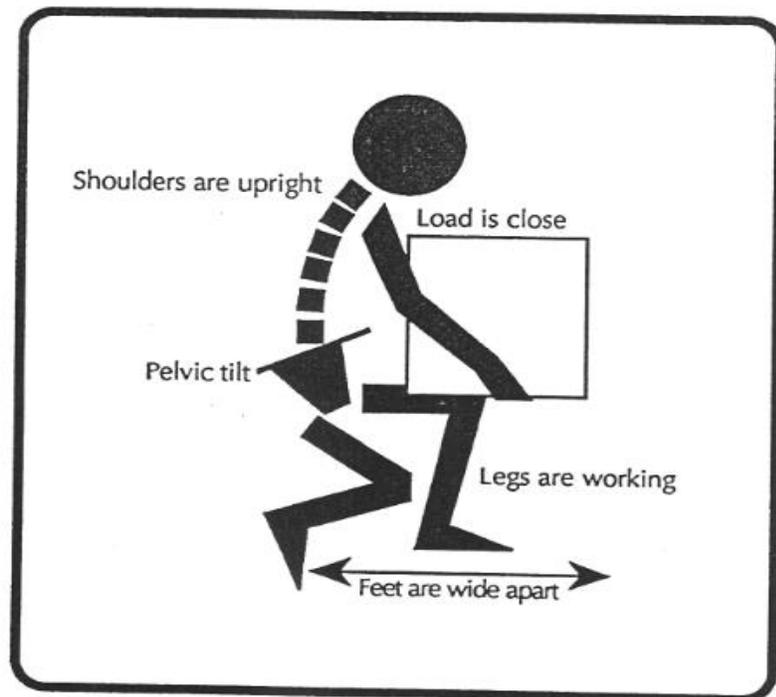
Knees: ensure they are bent so that you will use your thigh muscles for lifting instead of your back.

Back: keep your low back in a pelvic tilt by tightening your abdominal muscles and your buttock muscles.

Head and shoulders: keep them upright.

Abdomen: keep stomach muscles tight because this takes pressure off your back.

Figure 3
Good posture



Some transfer techniques

Standing transfer

Use this transfer technique when

- the student is able to take weight through her feet
- the student can help to pivot
- you are able to manage without assistance.

Preparation

- 1 Remember to explain to the student what you are doing.
- 2 Ensure that the student has no-slip soles.
- 3 Place the wheelchair parallel to the chair or at 45° to it.
- 4 Ensure that wheelchair brakes are on.
- 5 Remove footrests and armrests as necessary.
- 6 Undo all restraints.
- 7 Before starting, run through the movement sequence in your mind.

Action—refer to Figure 4

- 1 Ensure that the student is sitting with her feet flat on the floor.
- 2 Position yourself directly in front of the student.
- 3 Place your feet wide apart and use your knees to grip the student's knees.
- 4 Bend your knees keeping the back in a pelvic tilt.
- 5 Have the student put her arms around your back or trunk but *not* your neck.
- 6 Count "1..2..3.." and on each count slowly rock back and forth gaining momentum.
- 7 On "3" straighten your legs to help the student stand.
- 8 Allow the student to gain her balance and then instruct her to pivot and sit.

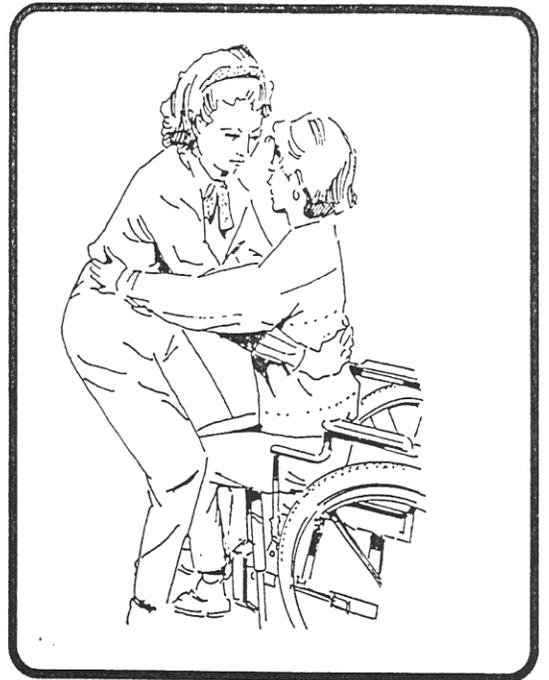
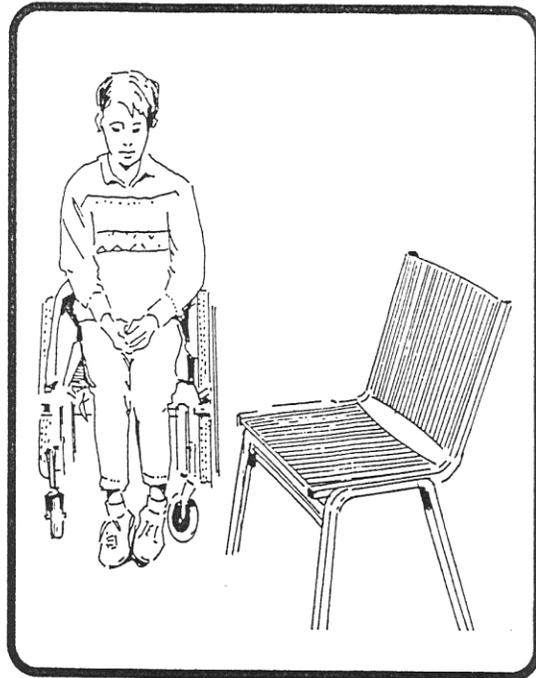


Figure 4
Step-by-step procedure for a standing transfer

Name: _____

Date: _____

Front-and-back, two-person transfer

This method is used when the student is unable to take his own weight and needs full assistance for transfers.



Caution!

Do not use this lift if you have to arch your back to get the student back into his chair. Consult with your therapist for alternative suggestions.

Preparation

1. Remember to explain to the student what you are doing.
2. Designate one lifter as the leader who will be the one to give instructions.
3. Ensure that the student's wheelchair is positioned where you need it and that it is facing the right direction. Place it so that there is enough room for the lifters to move.
4. Ensure that the wheelchair brakes are on.
5. Remove footrests and armrests as necessary and undo all restraints on the student's wheelchair.
6. Before starting, run through the movement sequence in your mind and discuss it with your lifting partner.

Action – Figure 5

7. Ensure that the student is in the sitting position with arms crossed.
8. Position one lifter behind the student and the other lifter at the student's feet.
9. The lifter who is behind should reach under the student's arms and grasp his forearms. The lifter who is at the front should place their arms under the student's thighs/lower legs.
10. Remember to adopt pelvic tilts and use your legs when lifting.
11. The leader says "1, 2, 3..." Exactly on "3" both lifters start to stand. Use your knees and protect your backs.
12. The lifters move sideways directing the student over the change table and then slowly lower the student onto the change table,
13. Once the change is completed, reverse order to return the student from the change table back to the wheelchair. A similar sequence would be used if use of a commode were involved.



"Chair"
← or
"changeable"



Figure 5
Step-by-step procedure for a front-and-back, two-person transfer

Name: _____

Date: _____

Side-to-side, two-person transfer

This method is used when the student is

- Unable to take his own weight and needs full assistance for transfers
- Too tall for the lifters to safely do a front-and-back transfer

Preparation

1. Remember to explain to the student what you are doing.
2. Designate one lifter as the leader who will be the one to give instructions.
3. Ensure that the student's wheelchair is positioned where you need it and that it is facing the right direction. (Typically either at a right angle or parallel to the change table). Place it so that there is enough room for the lifters to move.
4. Ensure that the wheelchair brakes are on.
5. Remove footrests and armrests as necessary and undo all restraints on the student's wheelchair.
6. Before starting, run through the movements sequence in your mind and discuss it with your lifting partner.

Action – Refer to Figure 6

7. Ensure that the student is in the sitting position with a lifter on either side.
8. Place your arms under the thigh area and behind the student's back making a seat for the student.
9. If possible, the student should put his arms around the lifters' shoulders.
10. Remember to adopt pelvic tilts and use your legs when lifting.
11. The leader says "1, 2, 3" and exactly on "3" both lifters start to stand. Use your knees and protect your backs.
12. The lifters move forward, then toward the change table, directing the student over the change table.
13. Slowly lower the student onto the change table,
14. Once the change is completed, reverse order to return the student from the change table back to the wheelchair. A similar sequence would be used if use of a commode were involved.



"Chair" or
"changeable"

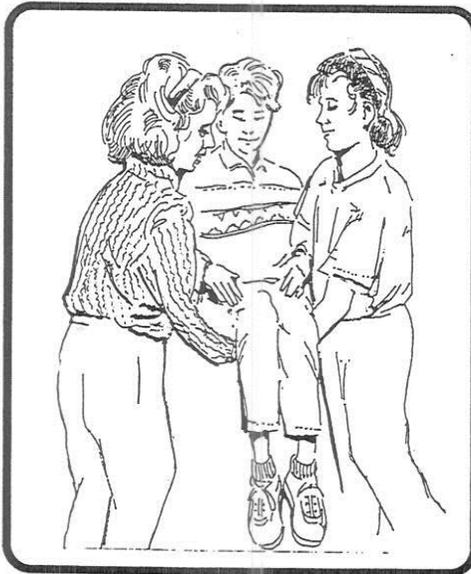


Figure 6
Step-by-step procedure for a side-to-side, two-person transfer

Name: _____

Date: _____

Mechanical Lifts

Some students are too heavy to lift and must be lifted mechanically. There are a number of lifts on the market that are suitable for the school setting.



Caution!

You must be taught the proper way to use each type of mechanical lift as they all operate differently. Practice operating these devices before using them.

Preparation

1. Remember to explain to the student what you are doing.
2. Ensure that you are very *familiar* with the way the sling works.
3. Designate one lifter as leader.
4. Ensure that the student's wheelchair is positioned where you need it and that it is facing the right direction.
5. Ensure that the wheelchair brakes are on.
6. Harness the sling system onto the student as demonstrated today.
7. Run through the movements sequence in your mind and discuss it with your lifting partner before starting.

Action

8. The leader should elevate the student *slowly* while the other lifter guides the student towards the change table.
9. Once the student is properly lined up with the change table, slowly lower the student onto the change table.
10. Once the change is completed, reverse order to return the student from the change table back to the wheelchair. A similar sequence would be used if use of a commode were involved.