

STUDY GUIDE

Back Safety Training

Instructor edition · 51 slides · 10 knowledge checks, answers marked

1. A Review of Safe Lifting Techniques

Back Safety: Return To Work Programs and Safe Lifting Techniques

Section 3: A Review of Safe Lifting Techniques

[user name]



Back Safety: Return To Work Programs and Safe Lifting Techniques

Section 3: A Review of Safe Lifting Techniques

2. Introduction

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After a brief review of safe lifting techniques and signs that a patient is exerting themselves, you will watch a number of videos that also review safe lifting techniques.

Because our patients are so unique, and each will have their own demands and deficits, it is important to take your existing knowledge with any learned in this course and apply it to each individual patient.

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3. Correct Neutral Posture

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OSHA (Occupational Safety and Health Administration) defines correct neutral posture as follows:

“(The correct) postures where the body is aligned and balanced while sitting or standing: the head is kept upright and is not turned to either side more than 30 degrees or tilted forward or backward more than about 15 degrees.

When the worker is standing, the torso is not bent more than 10 to 20 degrees from the vertical position and the natural curves of the spine are maintained.

The pelvis and shoulders should face straight ahead to avoid twisting the torso.

The shoulders are relaxed and knees slightly bent.

The arms hang normally at the side, with elbows close to the body. “

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4. OSHA Definition (cont.)

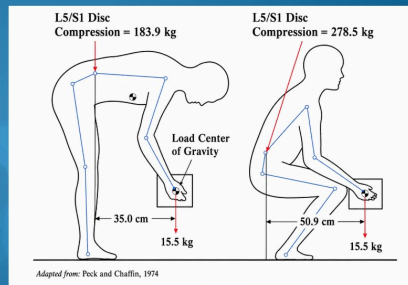
OSHA Definition (cont.)

“The elbows are not bent more than about 90 degrees and the palms face in toward each other and the center line of the body.

The wrists are in line with the forearms and are not bent sideways, forward (towards the palm), or backward (towards the back of the hand.)

When the worker is seated, the buttocks and feet are firmly supported.”

[OSHA Ergonomic Principles Index \(Lifting\)](#)



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[OSHA Ergonomic Principles Index \(Lifting\)](#)

5. Planning a Lift

Planning a Lift

Safe lifting requires PLANNING:

- Assess the load and check overall condition;
- Check route for obstacles and a clear path (be careful in a busy setting--this can change quickly);
- Use mechanical aids when possible;
- Break down large and heavy loads (avoid the “lazy-man-load,” where you try to carry as much as possible to decrease the number of trips you have to make);
- Know your limits;
- Seek help if necessary; and
- Use extra caution with awkward loads/lifts.

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6. Safe-Lifting Leverage

Safe-Lifting Leverage

The optimum safe lifting zone is close to the body, between mid-thigh to mid-chest height.

This is the safest area for lifts, because this is where a person's upper body and back muscles can lift the most with the least amount of effort.

Keep the object as close to the body as you are able to (decreasing torque on the body).



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7. Safe Lifting - Trunk Alignment

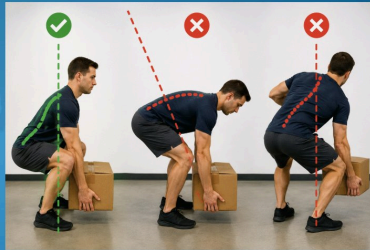
Safe Lifting - Trunk Alignment

For safe lifting, the vertical trunk alignment should be within 10 degrees of vertical.

The spine should be straight (normal curvature of the spine).

Vertical trunk alignment is not always possible, and when it isn't, make sure the spine is straight.

If possible, do not rotate the trunk.



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8. Safe Lifting - Speed

Safe Lifting - Speed

Excessive speeds with lifting should be avoided due to increased **peak spinal compressive force**.

These forces are most noted at the L5/S1 vertebral segment, aka the lumbosacral joint (Greenland, 2013).

Lifts that are too slow can also be dangerous.

Cumulative spinal compressive loading forces are much greater with slower lifting tasks.

Some research suggests that faster lifting of heavy objects would reduce the exposure time, and is likely less hazardous than slow lifting (Greenland, 2013).

However, most feel that a moderate pace is best when performing a dynamic lift.

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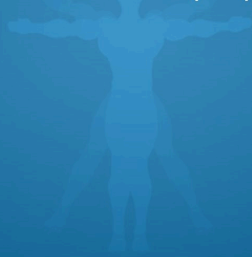
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41. Congratulations

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That completes the coursework for this section.

Please close this section and return to your course outline, where you will determine the next step in your training.



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42. Knowledge check

Where is the optimum safe lifting zone located?

Choose one.

- ☐ Above shoulder height, near the head
- ☐ Far from the body, at waist level
- ☒ **Close to the body, between mid-thigh and mid-chest height** (correct)
- ☐ At arm's length, below the knees

43. Knowledge check

What alignment helps avoid twisting the torso during a lift?

Choose one.

- ☐ The torso should twist as needed to improve reach
- ☒ **The pelvis and shoulders should face straight ahead** (correct)
- ☐ The shoulders should turn while the pelvis stays fixed
- ☐ The pelvis should rotate while the shoulders stay square

44. Knowledge check

Which lower-body movement is recommended for safe lifting?

Choose one.

- ☒ Bend at the hips and knees as much as possible (correct)
- ☐ Shift the weight onto the toes only
- ☐ Keep the legs straight and bend only at the waist
- ☐ Lock the knees and hinge backward

45. Knowledge check

When developing return-to-work programs for moving loads, which approach is generally preferred?

Choose one.

- ☐ Pulling is safer when walking backward
- ☒ Pushing is generally preferable to pulling (correct)
- ☐ Pulling is generally preferable to pushing
- ☐ Pushing and pulling have the same risk

46. Knowledge check

Which action is listed as a sign of physical effort during overhead lifting?

Choose one.

- ☐ Bending the knees during the lift
- ☒ Resting the box on the body or shoulder (correct)
- ☐ Maintaining vertical trunk alignment
- ☐ Keeping the box close to the body

47. Knowledge check

What does uncontrolled throwing of an object during a lift usually suggest?

Choose one.

- ☐ The person is using a moderate pace with control
- ☐ The person is keeping the load close to the body
- ☒ The person may be using momentum to assist the lift (correct)
- ☐ The person is lifting with vertical trunk alignment

48. Knowledge check

Which tools are used to monitor pain and perceived exertion during dynamic lifting tasks?

Choose one.

- ☐ Heart rate monitor and blood pressure cuff
- ☐ Pain map and gait index
- ☐ Body mass index and grip strength scale
- ☒ Visual Analog Scale and Rate of Perceived Exertion Scale (correct)

49. Knowledge check

When possible, what load limit should overhead lifting generally stay at or under?

Choose one.

- ☐ At or under 50 lbs.
- ☒ At or under 25 lbs. (correct)
- ☐ At or under 35 lbs.
- ☐ At or under 15 lbs.

50. Knowledge check

The wrists should stay in line with the forearms and should not bend sideways, forward, or backward during correct neutral posture.

- ☒ True (correct)
- ☐ False

51. Knowledge check

In safe lifting, it is best to plant the feet firmly and avoid pivoting or weight shifting.

- ☐ True
- ☒ False (correct)