



Training Solutions, Delivered!

POWERLIFT[®]:
Lifting Training
That Works
(Concise)

**Leader's Guide, Fact Sheet
& Quiz**

Item Number: 3941
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This easy-to-use Leader's Guide is provided to assist in conducting a successful presentation.

PREPARING FOR THE MEETING

Here are a few suggestions for using this program:

- a) Review the contents of the Fact Sheet that immediately follows this page to familiarize yourself with the program topic and the training points discussed in the program. The Fact Sheet also includes a list of Program Objectives that details the information that participants should learn from watching the program.
- b) If required by your organization, make an attendance record to be signed by each participant to document the training to be conducted.
- c) Prepare the area and equipment to be used for the training. Make sure the watching environment is comfortable and free from outside distractions. Also, ensure that participants can see and hear the TV screen or computer monitor without obstructions.
- d) Make copies of the Review Quiz included at the end of this Leader's Guide to be completed by participants at the conclusion of the presentation. Be aware that the page containing the answers to the quiz comes before the quiz itself, which is on the final page.

CONDUCTING THE PRESENTATION

- a) Begin the meeting by welcoming the participants. Introduce yourself and give each person an opportunity to become acquainted if there are new people joining the training session.
- b) Introduce the program by its title and explain to participants what they are expected to learn as stated in the Program Objectives of the Fact Sheet.
- c) Play the program without interruption. Upon completion, lead discussions about your organization's specific policies regarding the subject matter. Make sure to note any unique hazards associated with the program's topic that participants may encounter while performing their job duties at your facility.
- d) Hand out copies of the review quiz to all of the participants and make sure each one completes it before concluding the training session.

3941 POWERLIFT®:
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FACT SHEET

LENGTH: 10 MINUTES

PROGRAM SYNOPSIS:

Most of us have been trained to lift objects with the traditional “bend your knees and keep your back straight” technique, but it just doesn’t work. This method forces us to overuse our knees and legs and our backs still end up bearing the brunt of the load. Dr. Michael Schaefer has recognized the flaws of the conventional lifting technique and developed a safe, easier and stronger lifting position: the powerlift. This technique keeps the back in a powerful and safe posture while an object is being lifted. This program explains the five lifting techniques that have been derived from the powerlift position so viewers can move materials safely in practically every situation.

Topics include flaws of the squat lift, the wide stance powerlift and its basic principles, the tipping load powerlift, the tripod powerlift, the golfer’s bend and the lean-bar lifting.

PROGRAM OBJECTIVES:

After watching the videotape program, the viewer will be able to identify the following:

- How the traditional squat lift is flawed and how it can harm the health and safety of the spine;
- The basic principles of the wide stance powerlift;
- How to perform the four other lifts derived from the powerlift concept: the tipping load lift, the tripod lift, the golfer’s bend and the lean-bar lifting technique.

INSTRUCTIONAL CONTENT:

BACKGROUND

- Our backs, specifically the health of our backs, affect nearly everything we do—our ability to perform our duties at work as well as our activities at home. Even our valued recreational activities are completely dependent on the health of our backs.
- A specific lifting technique, the powerlift is designed to keep the back in a powerful and safe posture while lifting a wide variety of objects in various situations. It was developed by Dr. Mike Schaefer and has been implemented by some of the largest companies in the world, including the U.S. Postal Service.
- Dr. Schaefer has visited and implemented safe lifting techniques for material handling applications for companies worldwide. While doing so, Dr. Schaefer quickly learned the flaws of the conventional lifting technique and developed a safe, easier and stronger lifting position: the powerlift.
- From the basic powerlift position, five lifting techniques have been derived to help you move materials safely in practically every situation. Viewers will be able to perform these techniques after viewing this program, but first they need to know the cause of most back injuries and why the traditional “bend at your knees and keep your back straight” lifting technique (otherwise known as the squat lift) just doesn’t work.

WHY ‘BACK LIFTING’ CAN BE SO HARMFUL

- Our back is made up of bones called vertebrae, with cushions in between called discs and ligaments, which hold everything together. This combination of structures is known as the spine.
- It is the main structural support for our body and as such, it can support large loads when it remains in its strong neutral position.
- Most people don’t lift with their back in this neutral position, but rather by bending at the waist and using their back like a crane. This is called “back lifting.”
- In this position, the forces of leverage work against us by loading our backs with up to 10 times the weight of the load being lifted, but it’s not just the weight of the load we are lifting; back lifting in this manner forces us to also lift the weight of our upper bodies.
- Even worse, this increased force is concentrated mostly on the vertebrae of the lower back.

FLAWS OF THE SQUAT LIFT

- Back injuries are typically a cumulative injury, meaning they occur over a period of time rather than happening in one painful event, but most of us already know this.
- We may have even received prior training to “place your feet shoulder-width apart, keep your back straight and lift with your legs” in an effort to reduce the force placed on our backs while lifting.
- We may even make a good faith effort to do this “every lift—every time,” but we just can’t seem to make it a habit. There’s a good reason we often fail at using this technique—it just doesn’t work.
- It’s so hard because with our feet shoulder-width apart, we must rock onto the balls of our feet, which is a weak and unstable position. Our knees are held in a deep-squat position and we can’t get close enough to the load because our knees and legs get in the way, which forces us to push the load away from us.
- The main flaw with this technique is the deep knee bend required when we squat into our lifting position. With our knees bent into this deep squat position, it becomes very difficult to straighten our knees as we lift with our legs, not to mention trying to balance on the balls of our feet with the load extended out in front of us.

THE WIDE STANCE POWERLIFT

- Dr. Schaefer discovered that taking a stance wider than shoulder-width allows us to raise and lower a load vertically with our legs, similar to an elevator rather than damaging our spine by using it as a crane.
- A wide stance allows us to get closer to the load, since our knees are no longer in the way. Our feet remain flat on the floor, creating a more stable base and the knees only have to bend to a 100-degree angle for the lift.
- Dr. Schaefer calls this the “power-stroke” of the knee because it has more mechanical advantage and strength compared to the squat position. It is also much easier on hurt or arthritic knees than the squat lift.

POWERLIFT BASICS

- To create a powerlift, get close to the load by approaching its corner while spreading your feet wider than shoulder-width apart. Then bend your knees while you lift your head and chest; lifting the head and chest helps rotate your hips forward, which keeps your back in its strong neutral position.
- There are four other lifts derived from the powerlift concept that give us the ability to move materials safely when confronted with various lifting situations.

THE POWERLIFT TIPPING LOAD

- Handles are helpful in lifting because they provide a place for a firm grip and allow us to shorten the lifting motion, but in the real world many loads don’t have handles. So what do you do? You create handles by simply tipping the load.
- As with the basic powerlift on a load with handles, get close to the load by approaching its corner while spreading your feet wider than shoulder-width apart. Then bend your knees as you rotate forward at the hips as you go down for the load, while lifting your head and chest to put your back in neutral.
- Then tip the load towards you, which creates “handles” for a firm grip while also raising the load off the floor to create an easier lift. Then lift your legs like an elevator instead of using your back like a crane.
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- Tall objects present a special challenge. They can’t be tipped towards you because you can’t get close enough; instead, tip tall objects away from you, then step around them in a wide stance and lift using the powerlift technique.

THE POWERLIFT TRIPOD LIFT

- The tripod lift is used to safely handle loads that are hard to access. Perhaps the most common example is simply accessing a box on a low shelf.
- All too often, people use a bending and twisting motion as they attempt to access a load like this. The bend/twist motion is awful on your back; instead, save your back by going down on one knee, creating a tripod lift.
- As you go down, support yourself with one hand on a shelf and the other on the opposite knee. This lift creates three points of support, foot, knee, foot; move the load and place it on your opposite thigh.
- Now, here’s the important part: let your thigh support the weight of the load as you rise. In fact, you can even push down on the load as you rise; pushing down on the load helps to push you up.

THE GOLFER'S BEND

- The golfer's bend is the method most golfers use to lift their ball from the cup. Of course, most golfers haven't been trained in the power lift techniques; they just do it naturally because it takes strain off their backs.
- The benefits of the golfer's bend are not limited to golfers. This lifting technique is a great way for anybody to do a one-handed lift; it relieves back strain because the motion is a pivoting of the hip rather than a bending of the back.
- The golfer's bend looks simple, but it must be done properly. When doing this lift, you must be both supported and crossed over.
- This means that if you are supported by your right hand, then your left foot must stay on the floor. This frees your hip to pivot when reaching the load.
- Failing to properly cross over by standing on the wrong foot makes for an awkward motion and places a twist in your back as you go for the load.

THE LEAN-BAR LIFTING TECHNIQUE

- As we have seen, the golfer's bend is especially useful for reaching small objects on the floor, but how about those times when you just can't get to the load easily?
- Sometimes our access is blocked by something between us and the load. For example, an item in the trunk of a car or way back on a shelf, or we must reach across an assembly line or workstation.
- How do we lift safely when confronted with a situation like this? Unfortunately, most of us resort to using the back lift, not knowing what else to do, but a better method is the "lean-bar" technique that involves leaning against a horizontal bar to help reduce the load placed on your back while lifting.
- Of course, the object is not always an actual bar; it could be something like the bumper of a car. As you lean, let the bumper support all your body weight as you reach in to pick up the load.
- If you can still feel the lift in your back, then you are not leaning with enough force.
- The lean-bar technique can be used anytime a solid, immovable object is between you and the load and is lower than hip socket level, such as shelves, storage or similar situations.

SUMMARY

- In order to use this information to lift in the safest manner, we must take the time to consider each lift and determine which method or combination of methods will allow us to move an object while maintaining our back in its strong neutral position.
- Of course, maintaining a general level of fitness combined with appropriate daily stretching and warm-up prior to beginning our material handling activities is also a key part of maintaining a healthy back.

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ANSWERS TO THE REVIEW QUIZ

1. c

2. a

3. a

4. b

5. a

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REVIEW QUIZ

The following questions are provided to determine how well you understand the information presented in this program.

Name _____ Date _____

1. Which of the following problems with the squat lift technique is considered the main flaw?
 - a. Having to rock onto the balls of our feet
 - b. Placing your feet shoulder-width apart
 - c. The deep knee bend required when we squat

2. When using the tipping load powerlift, very tall objects should be tipped _____ your body.
 - a. Toward
 - b. Away from

3. When performing a tripod lift, pushing down on the load as you rise helps to push you up.
 - a. True
 - b. False

4. When doing a golfer's bend with support from your right hand, which foot must stay on the floor?
 - a. Right
 - b. Left

5. If you can feel the lift in your back when performing a lean-bar lift, you are not leaning with enough force.
 - a. True
 - b. False