

MARION COUNTY SAFETY MANUAL ANNEX L – LIFTING AND BACK SAFETY

Overview

Back injuries can be extremely painful, long-lasting, keep you out of work for long periods of time and may also require surgery in some cases. Back strains and injuries can happen at any time, with most occurring at the workplace. According to OSHA, back injuries are the second leading cause of lost work time. It is important that employees and employers understand the acts that are likely to result in a back strain, and determine how we can perform tasks in a way that will reduce the risk of a back injury.

Identifying the Hazards

A back injury can occur as the result of one wrong move or by the buildup of stress on weak muscles. Back injuries can also be caused by muscle spasms, strains and sprains, slipped discs and hernias. There are a variety of tasks and movements, especially lifting, that can lead to back injuries if they are not done properly. However, the biggest hazard to your back is you. The following are a few things that most employees who suffer from back injuries have in common:

1. **Poor Physical Condition:** The muscles in your back and stomach hold up your back letting it move properly. When these muscles are weak, they cannot do their job. Regular exercise is important to good health and is also important to maintaining a healthy back. Exercise helps keep muscles strong and flexible.
2. **Poor Posture:** The lower back carries the burden of most of your body weight. Poor posture, whether sitting or standing, stresses the back instead of supporting it.
3. **Extra Weight:** When you are overweight your back has more to support. A potbelly is particularly stressful on the back due to its location.
4. **Stress:** When you feel tense, your muscles, including your back muscles, tense up too.
5. **Overexertion:** People are often afraid to admit that an item they are lifting is too heavy. Because of this statement, many employees end up lying in bed recovering from a back injury.

For those employees who do not suffer from any of the above and have a healthy back, there are still a number of hazards that employees encounter that could create back injuries if these tasks are not performed properly. Among these hazards encountered on the job are:

1. Heavy lifting
2. Twisting and lifting at the same time

3. Lifting odd shaped objects
4. Reaching and lifting objects
5. Bending and overexerting
6. Lifting items whose weights vary
7. Sitting or standing too long in one position

Back injuries may also occur as the result of a slip, trip or fall. The bottom line is to identify back hazards and become conscious of how important it is to protect your back. Learn to avoid situations that force your back to do something it's not meant to do or not able to do.

Protecting Against Hazards

The best protection your back has against the hazards that it faces, both on and off the job, is for you to develop habits that will help reduce the amount of strain put on your back. The following tips can help reduce the amount of strain placed on your back:

1. Slow down, don't get in a rush: Back injuries resulting of slips, trips and falls can be prevented by walking from place to place instead of running.
2. Stretch prior to any lifting: It is a good idea to stretch gently prior to lifting. Gentle stretches at the beginning of the day and periodically throughout the day will keep you back muscles flexible
3. Rest your back by getting a full night sleep: When you sleep, your back gets rest from carrying around your body weight.
4. Avoid lift when possible by using handling equipment: Dollies, hand trucks, hoists, etc should be used to assist you when handling materials. Remember, when using a hand truck, push it, do not pull it.
5. Break the load down into smaller, manageable pieces: This will reduce the weight your back must tolerate. If heavy or awkward lifting is necessary, get another person to help you with it.
6. Look for ways to reduce the number of times you have to lift: Plan jobs so materials and tools only have to be moved and placed once.
7. Try to keep materials that you may have to lift at wrist height, when possible: Lifting to and from this height is less of a strain that a higher or lower placement.
8. Make planning the first step in lifting: You cannot eliminate all lifting, but you can eliminate some of its hazards if you take time to plan before you lift.

Other Techniques to Further Protect Your Back

Lifting techniques are not the only preventative measures that you can do to help protect your back. You can also help prevent strain and pain on your back by sitting, standing and moving in ways that don't stress your back. Try the following steps:

1. Sit up straight: The best posture for your back is to sit up straight, close to the desk or table you are working at, with your back against the chair. Legs should

be bent with your feet flat on the floor. Do not sit for long periods of time. Get up occasionally to stretch and walk around.

2. Stand tall and straight: When you stand your shoulders should be even and back. Keep your head up and pelvis forward.
3. Drive with good posture: While driving you should have your knees bent and your back should be straight.
4. Lay flat when working on your back: Use a position that keeps your back flat with knees bent. Don't stay in one position too long, and get up occasionally and stretch.
5. Shoveling: When using a shovel, do so that your legs, not your back, do the lifting.
6. Working low to the ground: Keep your knees bent and your back as straight as possible. Avoid bending from the waist.
7. Catching falling objects: Keep your back straight, knees bent and feet firmly on the ground. Allow your legs to absorb the impact.
8. Don't Jump: Jumping, even from a short distance, can cause a back injury. Use ladders and steps when possible and provided.
9. If you feel back pain, stop what you are doing: If your back begins to hurt, this is your body's way of telling you that you have injured it. Once you have injured your back, it is important to allow time for it to heal and to avoid further strain.

EMS Lifting Procedures

This section addresses lifting hazards faced by EMS personnel on a daily basis. Back injuries are a frequent occurrence among EMS personnel, that with the proper techniques, can be prevented. Understanding the mechanics of patient movement is invaluable in the EMS field. The following steps can help make the EMS profession safer when it comes to back injuries:

1. Understanding the Mechanics: It is important to remember that your back is designed to bear weight, not lift it. You should support the patient as close to your body as you can, with your back as straight as possible. Also, don't forget to utilize your Fire/Rescue personnel for heavy lifting situations. In lifting, if it feels right it probably is.
2. Lifting and Carrying: Spare your back and use your equipment. The equipment on the ambulance is designed to make patient handling safer and easier. Patients that require lifting or carrying should be done so supine. This will protect both you and the patient.
3. Moving a Seated Patient: In cases where patients are found seated, they can often be moved this way, but it is not as safe as moving supine. In some cases it is necessary to move the patient in a seated position however, it is important to insure that the patient is capable of enduring this type of maneuver.
4. Moving Via Stairways: In this situation it is important to remember that you try to distribute yourself as evenly as possible around the patient's center of mass or balance point. The stretcher should be lowered to a minimum height. The patient should be securely belted in and told what to expect.

5. Personal Consideration: Safety should be a top priority for all Public Safety workers, both on and off of the job. Public Safety officials should set this example for all other employees. Remember that proper foot gear is key when lifting. EMS employees should also remember that a strong, well nourished body should be maintained to endure the stresses of the profession.

Safety Procedures

It is important to remember that your back's primary job is to carry and support your body. When lifting the wrong way, your back must support not only you, but also whatever you are carrying. Below are a few safe lifting techniques:

1. Stand close to the load with both feet firmly on the floor, about shoulder width apart.
2. Squat down close to the load with your back straight and knees bent.
3. Place your hands on opposite corners of the load so that one hand pulls the load toward you while the other load lifts.
4. Grip the load firmly with both hands.
5. Bring the load as close as possible to your body, keeping your weight centered over your feet. Tuck your arms and elbows into your side and your chin into your neck.
6. Stand up slowly with your back straight. Allow your legs to do the lifting.
7. Make sure you have a good grip and can see what you are doing.
8. Take small steps, keeping the load close to your body and no more than waist high.
9. When lowering the load, bend your knees so that your legs do the work.
10. Position your hands so that your fingers don't get caught under the load.
11. Place the load on the edge of the surface, then push it back.

These techniques are the basis for safe lifting. Back injuries can be a lifelong injury, so it is important to do whatever you can to prevent them from occurring.