



Material Handling Basic Lifting Safety

Safety and Environmental Management System

SEMS 4-24

Awkward Positions

We have all been told to avoid back injury by bending our knees when we lift, keeping the load close and avoiding twisting motions. These safety rules may be appropriate for simple, direct lifting of materials, but what about back care when you are working in awkward positions? Work tasks that require you to reach or stretch away from your body while handling materials can also put excessive strain on vertebral discs and soft tissues in the back. An awkward position is a work posture that distorts the spine from its natural curves, puts unbalanced pressure on the discs, and can strain arm, leg, or back tissues if held for any length of time.

What are some work situations that may put you in “awkward” positions?

- Jobs that require you to bend and reach into bins or containers to retrieve or place material.
- Overhead work, cleaning ceilings, making bunks, cleaning latrines/lavatories, etc.
- Floor or ground level jobs such as unloading groceries/laundry, cleaning, etc.
- Work tasks in confined or small spaces where there is a limited range of motion.
- Pulling loads, instead of pushing them, when removing equipment or other materials.
- Repetitive tasks that require twisting of the back such as loading or handling material 90° to 180° from the starting point.

How can you avoid injury when working in “awkward” positions?

- Raise bins and containers off of the floor and/or tilt them to reduce bending and over-reaching.
- When working overhead, stand on a steady and adjustable platform. Keep your back posture in its natural curve to avoid uneven spinal loading.
- If working on the floor, avoid bending over to work. Squat down using your leg muscles.
- In smaller spaces, plan your work, and reduce clutter in the area that increases the need to twist or overreach. Also, arrange for adequate illumination.
- Don't hold an awkward position for too long. Pause often to stretch and straighten out.
- Position yourself as close as possible to the job, avoid overreaching and/or use tools with longer handles when working from elevated heights.
- Never lift heavy loads that are far from your body's center of gravity. Get help!
- Position your work below the shoulder and above the knees to minimize over-reaching.
- Push, rather than pull, loads to help maintain the spine's natural curve.
- Back support belts are required PPE with SONOCO. A back support belt's purpose is to remind you to lift correctly, but it will not prevent an injury if you overreach or twist with a load.

Lift It Twice

Most of you have heard the general rules of safe lifting. Remember to “get a firm grip on the load, keep it close, bend at the knees, use your legs to lift the load, and keep your spine in the natural position (with an arch in your lower back).” These principles always apply and should be incorporated into every lift – if possible! Given the enormous number of “risky” lifting situations that you are faced with throughout your work day, you may not be able to apply these principles every time. This is why you must remember to **LIFT IT TWICE!**



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The act of lifting is the same as any other movement that you can learn to do better with practice. As you know, the more you practice a skill, the better you become at doing it. But, preparing to master a skill normally involves mental as well as physical training. Consider bowling, golf, skiing, or sharpshooting. You think carefully about the movements that you're going to make before you do them. This is the only way to get them right – at least until they become second nature.

Your first lift is a mental lift. Think about the lift prior to actually doing it:

- How am I going to lift the item? Can I do it myself or should I get some help?
- How heavy is the item? Do I need assistance?
- Where I am taking the item being lifted? (difficult path or a distance to go?)
- What hazards may hamper the lift or obstruct the travel path?
- Eliminate hazards before you lift the item.

The second lift is the actual physical lift. Here is where you carry out your plan.

- Use proper body mechanics and techniques while going through the motions.
- Most important: keep the load as close to your body as possible.

Poor body mechanics and bad lifting habits usually “trigger” a back injury – and are more likely to do so if overall physical condition is poor. Remember this to help escape injury:

- Avoid using fast jerky motions when lifting.
- Avoid bending and twisting at the same time.
- Avoid handling a load too far away! Keep the load close to the body.
- **TEAMWORK!** If the load is too heavy, ask for assistance!

You might not have considered “underlying” factors that lead to back injury. The cause of most back problems is poor posture, loss of flexibility, stressful living/working habits and above all, a general decline in physical fitness. When you “let yourself go,” (and most of us do with age) the *first* thing to go can be back strength. Along with correct lifting techniques, we should also work on our overall physical condition.

Nutrition – is an important key to staying physically fit! As we grow older, our metabolism slows down. To counteract this natural event, we have to eat the right types of food – and not too much of it – or the pounds come on quickly! Now, what does nutrition have to do with a healthy back? For one thing, a healthy back is correctly balanced on your spine. With a “sway” back, that balance is lost – and a “potbelly” can cause sway back! Carrying around excess weight puts tremendous strain on back tissues, so lifting even a small extra load may cause an injury.

Exercise – plays an important role as well. A form of exercise as simple as walking 30 minutes a day can raise your heart rate and burn enough calories to help keep you lean. Flexibility is another condition that changes as we grow older, if we don't work to retain it – Use it or lose it! Without flexibility, we lose our body's full range of motion. Then, when a sudden, physical demand takes a muscle or joint further than it's used to, the risk of injury high. You can do stretching exercises every morning to keep yourself flexible and ready for the physical demands of work. After all, athletes warm up before a game to prevent injury!



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Fixed positions – not moving *enough* – can also cause back problems. Staying in a fixed position for too long can lead to muscle spasms. We feel it as stiffness, but by the time discomfort from “static” muscle contractions is experienced, low level tissue damage has begun. Take stretch breaks between long standing or sitting periods to improve circulation and prevent back strain.

Emotional stress – leads to mental distraction, so that things other than proper body mechanics are on your mind. Stress and back pain seem to go together. Low back pain has been called “a tension headache that slipped”. Solving our personal problems isn’t always easy to do, but it often takes away back pain and helps prevent repeated injuries.

Improper lifting isn’t the *only* thing that causes back injuries. People who do not stay in good physical and mental condition are at high risk for back problems. Take care of your back and it will take care of you!