Back Safety

Preventing Back Injury

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Back injuries

Back injuries are considered as the nation's #1 workplace safety problem. Back injuries are often:

• Very painful;
• A long term or lifetime disability; and
• Expensive to diagnose and treat.
BACK INJURY PREVENTION

CAUSES OF BACK INJURY

BACK INJURY CAUSES:
Injury Risks -- Bad Work Design / Bad Work Habits.
Repetitive Motion -- Too Much Bending / Twisting.
Fatigue -- Lack Of Rest / Long Periods Of Overtime.
New Employees -- May Overwork / May Have Bad Habits.
Aging Workforce -- Can't Get Away With Back Abuse.
Excessive Demands -- Greater Workload / Lack Of Ability.
Personal Factors -- Poor Flexibility / Endurance / Attitude.

WORK RISKS:
Forward Bending -- Bending Too Far / Too Much.
Twisting -- Repetitive Twisting / Too Far / Too Much.
Lifting / Carrying -- Lifting To High / To Much / Carrying To Far.
Prolonged Sitting -- Poor Ergonomics / Poor Posture.
Prolonged Standing -- Lack Of Movement / Poor Shoes / Floor
Awkward Sustained Posture -- Twisted / Bent / Combination
Environment -- Vibration / Wet / Cold
Work Habits -- Hurrying / Short Cuts / Doesn't Work Safely.
Why Do So Many People Have Back Problems?

Most back problems are related to your spine. Your spine is made up of many small bones called vertebrae. These vertebrae are "spaced" by spinal disks that act as shock absorbers to cushion and separate your vertebrae. Your spine serves not only to help you sit or stand upright, but also to protect your spinal cord. Your spinal cord is the main "information highway" for your entire body, and is composed of millions of nerves. Because your spine is a delicate structure, you will experience pain whenever you strain, sprain, or in some way injure your back.

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Causes of Back Pain

Poor Posture

- Standing, sitting, or lying down incorrectly will put strain on your spine. Your spine is designed to operate best when it is in a "natural S" shape. Bending this natural S out of shape for long periods of time can often lead to muscle fatigue and back pain. This is why you stretch backwards when you experience back tension. Without thinking, you are trying to adjust your spine back to its natural S shape.
Causes of Back Pain

Out of Shape

• Your overall physical condition can affect your back. If your back muscles are weak, or if you have put on a few pounds, your back must work harder. Making your back work harder can lead to back pain.

Tension and Stress

• Tight and knotted muscles which are caused by tension and stress can cause muscle spasms and back pain.
Causes of Back Pain

Aging and Disease

As we age, the muscles in our backs lose their strength and ability to function. One of the disks in your spine can "slip" out of place, and press on the nerves in your back. Osteoarthritis, a form of arthritis, can cause back pain, as well as kidney and prostate problems.
Causes of Back Pain

Impact Trauma

Being in an accident, where your spine is injured, will produce serious back pain. Examples of impact trauma include, but are not limited to, falls, slips, being struck by materials or equipment, or being involved in an auto accident.
Causes of Back Pain

Repetitive Trauma

Working in an awkward position or lifting incorrectly over a period of time can cause what are known as cumulative trauma disorders (CTDs). As you repeat an unhealthy position or movement, small injuries begin to add up. If you do not change how or what you are doing, more serious injuries can occur.
Lifting Safely

In most work situations, objects that are very heavy are lifted and carried by machines such as forklifts. However, there are times when you may have to lift, adjust, or carry a heavy object. It is at these times that you run the risk of injuring your back.
Lifting Safely

Assess the Situation
Before lifting and carrying a heavy object, take a few moments to assess the situation.

- How far will you have to carry the load?
- Is the way clear of clutter, cords, slippery areas, overhangs, stairs, curbs, or uneven surfaces?
- Will there be doors that are closed? Ask someone to hold a door open or place a wedge under the door to hold it open.
- Once you get the load up, will you be able to see over the load, or will the load block your view?
- Can the load be disassembled, carried in pieces, then reassembled?
Lifting Safely

Before You Lift
Take a few moments to "size up the load." Test the weight by lifting a corner of the object. If it is too heavy or if the object is an odd shape, STOP!

- Ask for help. Two or three people lifting a heavy object is much safer than trying to do it yourself.
- Use a hand truck, pushcart, or a mechanical lifting device.
- Consider using gloves that will improve your grip and protect your hands.
- Never lift anything unless you are sure you can do so safely.
Lifting Safely

Lifting the Load

- The KEY to lifting safely is keeping your back straight or slightly arched. NEVER USE YOUR BACK TO LIFT!

- Start the lift by putting your feet close to the object. Get a firm footing.

- Centre your body over your feet.

- Squat down like a professional weightlifter, bending your knees. Keep your back straight or slightly arched. You want your legs to do the lifting, not your back.

- Grasp the load securely with your hands, and pull the load close to you.

- Smoothly lift straight up. NEVER TWIST YOUR BODY WHILE LIFTING, KEEPING YOUR HEAD UP, AS IF LOOKING STRAIGHT AHEAD, NOT DOWN.
Lifting Safely

Carrying the Load

As you carry the load:

- Keep your back straight or slightly arched.
- Walk slowly and surely.
- Use your feet to change directions. Never twist your back.
- Avoid leaning over.
- Avoid lifting a load over your head.
- If you become tired, set the load down, and rest for a few moments.
Lifting Safely

Setting the Load Down

Setting the load down is the reverse of lifting.

- Position yourself where you want to set the load.
- Squat down. Let your legs to do the work, not your back.
- **REMEMBER NOT TO TWIST YOUR BODY WHILE SETTING DOWN A LOAD, AND KEEP YOUR HEAD UP.**
- Once the load is where you want it, release your grip. Never release your grip on a load until it is secure. You don't want to drop a load on your foot. Or, if someone is helping you, dropping a load unexpectedly can injure the other person.
Alternatives to Lifting

Hand trucks and Pushcarts

- When using a hand truck or pushcart, remember:
- It is easier and safer to push than to pull.
- Stay close to the load, try not to lean over, and keep your back straight or slightly arched.
- Use both hands to control the hand truck or pushcart.
- Use tie-down straps, if necessary, to secure the load.
- Avoid stairs and inclines. If you must take a load to another floor, use a freight elevator.
- Never "horse around" with hand trucks and pushcarts.
Alternatives to Lifting

• Forklifts If an object is too heavy to lift or carry with a hand truck or load onto a pushcart, use a forklift.

• **WARNING:** Never attempt to operate a forklift or other piece of lifting equipment unless you have been trained and authorized by your organization to do so.
Maintaining a Healthy Back

Posture – Standing

Stand up straight. Don't slouch.

- If you must stand for long periods of time, use a footrest or anti-fatigue mats.
- Select and use appropriate footwear that is comfortable.

General Rules For Standing

- maintain a straight spine rather than slouching to the side
- avoid slouching forward or hyper extending
- keep the chin up with the head centred over the shoulders
- keep the feet slightly less than shoulder width apart
- keep the knees slightly bent
- wear comfortable shoes and leave the heels at home
- avoid standing still for long periods of time, rather, sit down or move around

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Maintaining a Healthy Back

Posture - Sitting

• Sitting is actually harder on your back than standing.
• Sit up straight. Again, don't slouch.
• If you must sit for long periods of time, consider using a pillow or towel to support your lower back.
• Select and use a chair that fits you. Make sure that when you are sitting that your knees are slightly higher than your hips.
Maintaining a Healthy Back

Posture - Lying Down

• Select a mattress that doesn't sag. Or, replace one that does.

• Sleep on your side with your knees bent or on your back. Avoid sleeping on your stomach with your head resting on a stack of pillows.
Exercise - Outdoor

After work, get off the couch, get outside, and get some exercise. For example:

• Go for a walk;
• Ride a bike;
• Jog;
• Swim;
• Play tennis, golf, or basketball.
• Remember to maintain good posture throughout your exercise session. If you have a history of back or other health problems, check with your doctor before starting any strenuous exercise program.
Maintaining a Healthy Back

Exercise – Indoor

If for some reason you can't get outside, the following indoor exercises will help you maintain a healthy back.

• Knee Raise
• Lie down on your back with your knees bent.
• Raise one knee at a time to your chest, and hold it for 30 seconds.
• Lower your foot to the floor, and raise the other knee.
• Repeat this exercise 6 times for each leg.
Maintaining a Healthy Back

Half Sit-ups

Lie down on your back with your knees bent.

• Put your arms on your chest.
• Raise your body 6 - 8 inches off the floor.
• Hold for 5 seconds, then relax.
• Repeat 6 times.
Partial Squat

Starting at a standing position, balance yourself by holding onto a stationary object, such as the back of a chair.

• Bend your knees, and squat down about halfway to the floor. Hold this position for several seconds.

• Stand up. Repeat 6 times.
Maintaining a Healthy Back

Leg Lifts

Lie face down on the floor with your head resting on your folded arms.

• Lift your right leg up from your hip until you feel the muscles stretch.
• Inhale while lifting up your leg, and exhale while lowering your leg.
• Return to your starting position. Relax.
• Repeat the exercise with your left leg.
• Repeat 8 - 10 times for both legs.

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Maintaining a Healthy Back

Eat Healthy

- Stay at a healthy weight. Being overweight puts extra strain on your back. Select foods that are good for you and help you to keep your weight down. Avoid foods that are high in fats and sugar. Foods that are high in fibre and low in salt are much better for you and your back.
Remember, your back is one of your greatest assets. Take care of it!