

BACK SAFETY

A. BACK FACTS

The back has 33 vertebrae, of which 24 permit movement. Between each of these vertebrae are discs which provide flexibility and cushion shock to the back. Muscles and ligaments surround the back bone, which move and support the spine. The lower back is the most likely target for injury since it is subject to greater mechanical stress than any other part of the body.

The two types of most common back injuries are:

Disc Injuries: Disc injuries may be **scarring** or actual **bursting** of the disc. May be caused by poor posture and/or lifting techniques.

Muscle and Ligament Injuries: This type of injury may be a **tear** or **strain** of the muscles and/or ligaments and may be caused by sudden, or unexpected, or a long maintained strain.

Back pain may be:

- a. **Acute** (stabbing pain);
- b. **Chronic** (long term aches and pains); or
- c. **Intermittent** (on and off pain).

Most injuries to the back occur over a period of time as the discs, muscles and ligaments wear out due to lack of care. Sometimes a small lift is all it takes to cause the back to “go out”. It is through prevention that you can ensure your back will be strong for years to come.

B. PREPARING TO LIFT/HANDLE LOADS

1. Before doing any lifting or handling of material, “warm - up” your back muscles. Stretches or some simple back exercises will help limber or prepare your muscles for working. “Cold” muscles will strain a lot easier than “warm” muscles.
2. Exercise regularly to strengthen your back muscles. Strong muscles are essential for proper back care.
3. Before lifting/handling a load:
 - a. Size up the load. Check to make sure it won't be too heavy or awkward for you. If you think it might be too heavy, too long, or too awkward, ask someone to help you.
 - b. Check the load for slivers, nails, sharp ends, etc., and if possible remove them. Use gloves if required.
 - c. Make sure that you have adequate space to lift the load and that your path of movement is clear.
 - d. Check the load for stability. Rearrange or divide the load as needed.

C. LIFTING/HANDLING THE LOAD

1. Make certain that you have good balance. Feet should be shoulder width apart with one foot ahead of the other one. Your back foot should be directly behind the article to be lifted.
2. Bend the knees, do not stoop. Keep your back straight, but not necessarily vertical. Tucking in the chin straightens the back.
3. Grip the load with the palms of the hands and the fingers. A palm grip is more secure.
4. Keep your back straight, use your body weight to start the load moving and then push up with the legs to lift the load, making full use of the strongest muscles in your body.
5. Keep your arms and elbows close to your body. Also keep the load in close to the body for less strain on your back.
6. Make sure that you can always see where you are going. Do not carry big, bulky loads by yourself.
7. Do not twist the body. To change direction, shift feet positions and turn the whole body.
8. Always center the weight of the load on both sides of the body.
9. To lower a load that you are carrying, bend your knees and keep your back straight.

D. TIPS TO PREVENT BACK INJURIES

1. Always use good posture when standing, sitting, or walking. Good posture reduces the strain on your spine and thereby reduces back injury.
2. Do not catch falling objects, the sudden force may cause serious back injury.
3. Be careful that you do not slip or fall. Many back injuries are caused in this way. Use extreme caution when walking on slippery surfaces, and always wear slip - resistant boots or shoes.
4. Do not over reach or stretch. Use a ladder to reach high places and do not stretch down into a crate or bin.
5. Change position of your body to avoid back fatigue caused by holding a certain position for too long.
6. Use anti-fatigue matting when standing in one spot for a length of time.
7. Use a chair or stool if your work can be done in a sitting position.
8. Use mechanical equipment such as hoists, forklifts, pallet jacks, carts, or two-wheeled hand trucks to lift or move loads whenever it is practical.
9. Try to arrange your work station to avoid lifting, twisting and bending as much as possible.

10. When standing for long periods at a time, raise one foot to ease lower back tension.
11. When lifting and bending a back brace is recommended to help eliminate back strain and injury.