"Oh, Your Aching Back!"

Back Injury Prevention Strategies from Terrie Heinrich Rizzo, M.A.S. Coordinator of Health Education Programs Stanford Health Improvement Program

If your back aches from time to time, you have plenty of company -- nearly 80 percent of us will experience back pain at some point in our lives. Certain job categories place us at even greater risk -- for example, jobs that involve a lot of lifting and carrying and - surprise! - seated desk jobs.

No matter what your occupation, you can help yourself beat the backache odds by learning how to protect your back on and off the job. The following tips will help you:

- 1. Keep your weight down -- we know you don't want to hear this, but it's one of the most important things you can do to help your back. Extra pounds put your back under constant greater everyday pressure and significantly increase your chance of an injury. It is especially stressful to your back if your excess weight is in the form of a "pot" belly, but even 15-20 evenly-distributed extra pounds force your back to work harder every day.
- 2. Stay (or get) in shape. Strong muscles are like the guidewires that support a new sapling -- they provide lots of help, and if they're not present, the chances for problems rise dramatically. Strong abdominal muscles are especially important to back health, but don't forget strengthening and stretching exercises for your other support muscles: the legs, buttocks, and back itself.
- **3**. **ALWAYS use good lifting technique**. Statistically, the Number One cause of back injury is lifting; therefore, you should always pay attention to the following "Lifting Rules":
 - a. Consciously tighten your abdominals every time you lift to help brace your back. This is the NUMBER 1 TIP -- get into the habit of doing this EVERY TIME you lift.
 - **b.** Avoid heavy loads: split large loads into smaller, more manageable ones, or get someone to help you.
 - c. Size up or test your load to see if you can handle it; don't rush in and assume you can lift it -- you may be in for a painful surprise.
 - d. Bend your knees and stick out your rear -- even a little. Bending the knees takes pressure off your back and lets your stronger leg muscles do the

work. Sticking out your rear -- in actuality, extending your hips -- relieves lifting pressure on the lumbar discs, plus helps you remember to bend your knees.

- e. Keep your head higher than your shoulders; this will usually prevent you from leading up with your back (and will encourage you to lift with your legs, which usually are among your strongest muscles).
- f. **NEVER twist!** Instead, turn to face the new direction, again using your legs.
- **4. PUSH instead of pull, every time you can** -- you have twice as much power when you push AND it puts less strain on your back. No matter what, try to keep your elbows as close to your body as possible and your head UP.
- 5. When reaching: if possible, use a tool or ladder to get high objects. Keep your shoulders, hips, and feet all facing the object; and bring the object down and in, as close to your body as you can, as you lower it from above.
- **6. When sitting**: learn to consider your back when you make a move. Observe the following "seat techniques"
 - **a. Avoid twisting your torso** -- move your whole body (shoulders, hips, and feet all facing in the same direction).
 - b. Sit in your chair so that your lower back (lumbar area) gets support. If your chair doesn't provide proper lumbar support for you, add a lumbar wedge, cushion, or even a rolled-up towel.
 - c. Try not to hunch over your desk to read or write; instead, bring your work up to you by using a slantboard or even a slanted loose-leaf notebook.
 - d. Get a telephone headset or neck rest to help save your back and neck, especially if you have the habit of cradling the telephone between your neck and shoulder. If your job requires a majority of time on the phone, a headset should be considered mandatory.
 - e. Make sure your knees are level with, or slightly higher than your hips, and your feet are supported. If possible, keep both feet firmly on the floor. If your feet don't comfortably reach the floor, get a footrest (or even a telephone book) to provide necessary support.
 - f. Take stretch breaks -- and stand up -- regularly.
 - **g. Men: keep your wallet out of your back pocket!** Sitting on a bulky wallet can cause or aggravate back, hip, and leg pain.

- h. Women: don't carry a heavy shoulder bag! The weight of the average shoulder bag forces you into improper posture (one shoulder lower than the other and back twisted out of alignment). Instead, carry a handbag -- or if you must carry a shoulder bag, lighten it up! (NOTE: This same principal applies to anyone who travels with heavy garment bags -- instead of lugging an overweight bag, use portable travel carts and other aids to save your back.)
- 7. When driving: many car seats are non-ergonomically constructed or too soft to provide proper support for your back. Move the car seat forward so that your knees are level with or higher than your hips, and provide good lumbar support with an inexpensive, portable back support (or towel). When looking back over your shoulder to check traffic, don't twist sharply from the neck or waist -- try to practice "full-body" turns from your hips. Above all, know when to stop the car, get out, and move around (frequently).
- **8. When sleeping**: Sleeping on your stomach is the worst sleep position, because it forces the back's natural "S" curves into an arch for hours. Try instead to sleep on your back or in fetal position. If you sleep on your back, a pillow under your knees will preserve your spinal curves. Curling up on your side in the fetal position also takes pressure off your back, especially if you support your top leg on a pillow. Consider purchasing a "body pillow" to help give all-night support, no matter how you sleep.
- 9. When doing common tasks: Follow recommendations from the experts:
 - a. Unloading groceries: To take packages out of the trunk, brace one knee on the rear bumper for support. Then tighten abdominals and remove one package at a time, holding it as close to your body as possible. Don't carry more to the house than you can easily handle -- yes, it takes longer, but the extra time is worth a fortune in back pain prevention.
 - b. Doing the dishes, ironing, or any stationary standing activity: When standing at a sink, ironing board, or any other standing task, put one foot up on a lower cabinet, a small stool, or box. This causes the back and thigh to form an angle of about 135 degrees and minimizes stress to the back.
 - c. Making the bed or giving a bath: Instead of bending over at the waist to put on sheets, kneel on the floor by the bed. To reach far enough to smooth out covers, kneel on the bed with one leg, keeping the other foot on the floor. Similarly, when you bathe a child or pet, kneel close to the tub and lean into it.
 - **d. Standing in line**: Standing for long periods puts continuous pressure on the spine, and standing with your knees locked and your feet too close

together adds to the strain. Instead, stand with your legs slightly bent, feet shoulder width apart, one foot a few inches farther forward than the other, and change positions every few minutes to rest.

- e. Gardening: Start by warming up and stretching; warm, limber muscles respond better to physical demands. Choose the right tool for your job and use it properly. Long-handled rakes, hoes, and shovels are especially troublesone, so remember to keep your feet wide and your hands further apart on the handle to gain strength and leverage. When planting or weeding, drop to both knees and use one hand to help support the weight of your upper body -- or sit on a small stool, if possible. Always keep your shoulders, hips, and feet facing in the same direction (don't twist), and remember to use good bending and lifting techniques. Split up or get help for heavy loads, and, above all, avoid stooping or kneeling for extended periods -- stop frequently for stretch breaks.
- f. Using a computer: To help prevent yourself from hunching over, be sure the top of the VDT screen is roughly level with the top of your forehead, and use a document holder to hold source materials in order to keep your head upright. Use a footrest If your feet do not comfortably reach the floor when your knees are slightly higher than your hips (see sitting position), and use a lumbar support or any other aids necessary to keep your back supported and hold your body in neutral position. Take an office ergonomics class to learn how to position your equipment properly to prevent repetitive strain injuries to your hands & wrists, shoulders, eyes, neck, and back.

To keep your back healthy and pain-free, the best defense definitely is a good offense! Do your best to keep yourself in good shape, and always move with your back in mind. By making good back techniques an automatic part of your life, you'll reduce your risk of injury -- and, best of all, you'll be doing everything you can to keep yourself free from back pain.