Preventing Back Pain

Back Pain can be prevented by: practicing safe bending and lifting techniques, good posture, wearing appropriate footwear, lifestyle changes such as strengthening and stretching exercises for the muscles that support the back, and weight control.

Lifting Techniques

Anything that causes extra stress or pressure on the muscles, ligaments, discs or joints of the spine can cause back pain. Avoid lifting objects that are too heavy and don't twist or bend at the waist when lifting.

Proper Lifting Technique:

- Assess the load – can you lift it safely?
- Place feet ten-to-two
- Bend your knees: leg muscles are stronger than back muscles
- Keep your back straight. Lean forward a little over the load if necessary
- Keep the load close to your body
- Lift load smoothly; don’t jerk

Good Posture Habits

Poor posture whether sitting, standing, or lying down makes the back more vulnerable to injuries and back pain; weak or shortened muscles contribute to poor posture. Fatigue also contributes to poor posture and back pain.

Proper Posture While Sitting

Even when maintaining good posture, sitting for prolonged periods of time can tire the back muscles as the human body was not designed to stay in one position for long periods of time.

Also, the discs are under more pressure when sitting than while standing. Having a chair that reclines slightly shifts your weight onto the backrest of the chair; this allows your back muscles to relax, and takes some of the pressure off of the discs.

The pelvis should be in a neutral position. Certain chairs cause the pelvis to tilt backward, decreasing the curve of the lower back (flattened back), which places extra stress on the lower back and causes back pain. If you don’t have access to a chair with a good back support, place a small pillow in the small of the back to correct the curve.

Some people try too hard to sit up straight and actually end up tilting their pelvis forward and arching their back. This increase in the curve of the lower back (sway back) also strains the lower back and causes back pain.

When sitting in a chair, the feet should be supported. If the seat is too high for the feet to reach the floor, use a platform to rest your feet on. The knees should be level with or slightly higher than the hips.

Besides lower back pain, neck pain is common when good posture is not maintained while sitting. Make sure your computer monitor isn't too high or low. The top of the computer screen should be just below eye level. You shouldn't have to tilt your head up or lean forward to see the screen.

Looking upward or looking downward or sideways (which is common practice when viewing a document upon a desk) puts excessive strain on the neck and upper back and causes neck and back pain. When reading, place the material on a document holder; don’t place reading material flat on a desk or your lap.

If you wear bifocals or trifocals while using your computer, it may be appropriate to position your monitor a few inches lower than otherwise recommended to accommodate comfortable viewing through your lower lenses.

Footwear

Footwear with the proper amount of cushioning and support can go a long way in preventing back pain. The features to choose in shoes are dependent upon an individual's foot shape, gait style (manner of walking), and his/her job.
**Tip: Stay Hydrated.** Drink plenty of water to help flush away acidic waste products from the muscles. High levels of acidic waste products (by-products of muscular activity) in the muscles can cause muscle irritation and pain.

*Exercise*

**Strengthening** the muscles that support the back (muscles of the back, abdomen, and buttocks) with exercise is an important measure to take to prevent back strain. Exercises include:

**The Bridge: Strengthens core muscle**

![Bridge exercise]

Lie on your back with your knees bent, feet together. Keep your arms on your side, palms on the floor. Lift the hips towards the ceiling, keeping your feet and palms flat on the floor. Hold for a count of five. Slowly lower buttocks to floor. Repeat five times.

**The Wall Squat:** Strengthening exercise for back, hips and legs.

Stand with your back against a wall, heels about 18 inches from the wall, feet shoulder-width apart. Slide slowly down the wall into a crouch with knees bent to about 90 degrees. If this is too difficult, bend knees to 45 degrees and gradually build up from there. Count to five and slide back up the wall. Repeat 5 times.

**Leg Lifts:** lower abdominal exercise

Lie flat on back. Lift left leg about 45 degrees, hold for 3 seconds, switch sides. Do ten repetitions.

**Stretching** the muscles is also important as shortened muscles can cause misalignment of the spine (poor posture). Stretching exercises loosen and lengthen the muscles to reduce pressure on the discs.

*Always consult with a doctor to make sure you don’t have a condition that could make it unsafe to do certain exercises.*

**Body Weight**

Lower back pain is more common in overweight people. Carrying extra weight causes more stress on the back, especially the lower back which supports most the weight of the torso. If excess weight is concentrated in the stomach area, even more stress is placed on the lower back. Weight can be controlled with a healthy diet and exercise. Though aerobic exercise is the most effective way to burn calories, strength exercises increase your muscle mass, which in turn increases your resting metabolism. Extra muscle mass burns extra calories even while sleeping.

Further information:

This brochure was compiled from the following sources:

**HSE: Getting to grips with manual handling**

**Back Strain Guide: Causes, Treatment, Prevention** ([www.bigbackpain.com](http://www.bigbackpain.com))

**Recognised Safe Lifting and Handling Techniques** ([healthandsafetytips.co.uk](http://healthandsafetytips.co.uk))