

Use Body Mechanics to Protect Your Back

by Susan Camp

Spring will arrive in about two weeks, and gardeners are ready to get back to work cleaning up winter debris and preparing the beds. It is time for a quick review from one of my old nursing lectures on how to use your muscles safely to prevent back or joint injury.

Body mechanics refers to the way we use body alignment, posture, and balance to produce safe and efficient movement when we are bending, lifting, and moving. Most of us want to work with our backs, but we should be using the large, strong muscles in our legs and arms, particularly when lifting heavy loads or moving large objects. Bad habits develop when we are young and strong. As we grow older, we bend over at the waist to weed; we lift bags of mulch or compost using our backs; and we twist too far to one side to reach an item on a potting shed shelf.

Most people will suffer at least one episode of low back pain during their lives. If you injure your back, do not hesitate to see your physician to rule out anything more serious than strained muscles. Your doctor may have you resume normal physical activity after resting your back for 24 hours. Studies show that patients who resume modified activity may maintain flexibility and experience less pain than patients who remain on bed rest for longer periods.

How can we use our muscles and joints more efficiently to prevent musculoskeletal injuries? In other words, what are proper body mechanics? There are only a few principles to remember:

1. Assess the task before you attempt it. Don't just reach down and grab that 40-pound bag of compost. It might be soaking wet and weigh 60 pounds or more!
2. Use the large muscles of the legs whenever possible for bending or lifting. Your back will thank you.
3. Work at the appropriate height. Raised beds will provide a more comfortable working height if you already have knee or back problems.
4. Use mechanical devices or assistance when needed. Sturdy garden carts are a necessary aid, but don't be shy about asking for help to lift the load into the cart.

There are four basic components of body mechanics:

1. Maintain your spine in vertical alignment. Don't slouch or bend to the side. Avoid twisting at the waist or reaching too far to one side.
2. Keep your feet shoulder width apart to maintain a broad base of support.
3. Maintain a low center of gravity by squatting to lift objects from the ground. Tighten your abdominal muscles to help protect the lower back.
4. Carry loads close to your body. If you need to move a bucket of smelly manure, put it in your cart rather than hold it away from your body, which increases your chance of losing your balance.

The complex knee joints are protected by the quadriceps muscles on the front of the thighs and the hamstrings on the back of the thighs. If thigh muscles are weak, knee injuries can result. Ask your doctor for information on exercises to strengthen the quadriceps and hamstrings. Avoid twisting motions and squatting for long periods, especially with the heels off the ground, as this position can damage knee ligaments.

Remember to remain well-hydrated while working in your garden. Take a break every hour and drink water. Even if the weather is cool and you are not sweating profusely, you are still expending energy, and your body cells need to remain hydrated in order to function efficiently and prevent muscle cramping.

After you finish working in your garden, take a warm bath or shower and drink some more water. Avoid alcoholic beverages. Over-the-counter pain medication may be helpful. If your muscles are sore the next morning, you may need to take a day off. Don't try to catch up on a winter's worth of gardening in the first week of spring!