

## Smart Moves to Protect Your Back and Joints

by Susan Camp

The article for this week was supposed to be about growing, drying, and using herbs. I had gathered my sources, made some notes, and started typing about my winter-damaged rosemary. Then last Thursday, the weather changed and spring arrived. After our long, cold winter, it was a joy to work outside in the garden for a couple of hours. Thursday night my husband and I complained to each other of aching muscles in our shoulders, backs, and legs. Both of us work out regularly with professional trainers, but we realized that digging and toting had us using some muscles that had been resting on the couch since last fall. After working in the garden on Friday, I realized that I needed to address some physical safety issues this week.

An internet search of “back injuries while gardening” yielded 90,600,000 results! One of the first articles I read was a 2009 Virginia Cooperative Extension (VCE) publication, #406-065 “Gardening and Your Health: Protecting Your Knees and Back”, complete with helpful illustrations demonstrating correct and incorrect ways to perform various gardening tasks. There are many other informative articles available on the VCE site related to physical safety and health while gardening or farming.

Poor posture and improper use of back muscles while performing tasks are responsible for thousands of low back injuries each year. 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. We tend to develop bad habits when we are young. As we grow older, we bend over at the waist to weed; lift bags of mulch or compost using our backs; and twist too far to reach an item on a potting shed shelf.

Many 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. Avoid using the back muscles for bending or lifting.

3. Work at the appropriate height. Raised beds might 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 necessity, but you may have to seek assistance to get the load into the cart. Don't be shy about asking for help.

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 the 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 smelly bucket of 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 the 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.

Shoulder and wrist injuries caused by weak muscles and the repetitive motions used in hoeing or chopping also are common to gardeners. Ergonomically correct hand tools can be purchased that may be more comfortable to use if you have a painful wrist or shoulder.

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, possibly, to 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!

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