

Taking Ergonomics Home

According to the Center for Disease Control and Prevention (CDC), in 2005 the third leading cause of nonfatal unintentional injuries among all age groups in the United States was Unintentional Overexertion. Over 3 million injuries were caused by some type of overexertion, with over 53% of those injuries occurring among adults ages 25-54.

The CDC defines overexertion as “working the body or a body part too hard, causing damage to muscle, tendon, ligament, cartilage, joint, or peripheral nerve (e.g., common cause of strains, sprains, and twisted ankles). This category includes overexertion from lifting, pushing, or pulling or from excessive force.¹” Many of these injury types can be prevented by observing some basic ergonomic principles.

Employers have been educating workers on ergonomic concepts for decades, but it seems that knowledge has not carried into the home. Whether working in a home office, doing household chores, preparing a meal or working on a do-it-yourself project, the same stressors found at work can be found at home. Minimizing exposure to these stressors can help keep you healthy and productive.

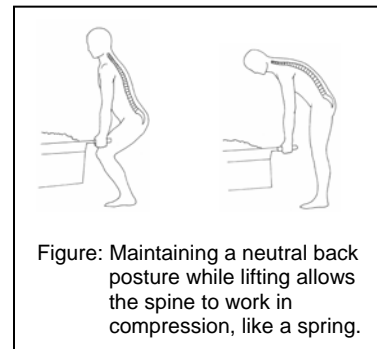


Figure: Many household chores expose us to stressors like awkward postures.

In the world of “Ergonomics” there are several stressors, or risk factors, that have been identified as increasing the potential of musculoskeletal injuries. These stressors, including excessive force, repetitive or static movements and awkward postures, are prevalent in many activities. When multiple stressors interact, the risk of an injury increases. Consider some of the tasks involved in yard work and gardening: moving a wheel barrow, working on your knees to plant flower bulbs or raking leaves. Each of these tasks has some amount of force, repetitive or static movement, and awkward body postures. What can you do to minimize your exposure to these stressors?

The following are a few basic guidelines to keep in mind:

1. **Use the right tools for the job.** Tools should make your job easier, not harder. Use tools with handles that allow you to have leverage without making you bend down. Hand tools should have handles that allow for a comfortable grip that disperses forces across the hand.
2. **Use proper lifting techniques.** Test the weight you are lifting. Avoid lifting something that is too heavy for you – ask for help. Lift with your legs, keeping your back in a neutral posture and the load close your body. Avoid twist while lifting. Avoid carry heavy loads long distances.
3. **Take breaks.** Taking short breaks every hour will allow your muscles an opportunity for recovery. Fatigued muscles are more prone to injury.
4. **Vary tasks.** Try breaking large projects into smaller tasks, and working on several at the same time. Follow a project that involves the entire body (washing a car, raking, painting, etc.) with one that involves more hand intensive work (cooking, hammering, cutting, etc.). By varying the tasks you are doing, you use different muscle groups and give your body some time to rest and recover.



By using the guidelines above, you can reduce your exposure to the stressors that lead to overexertion injuries – and avoid becoming a statistic!

¹ Ref: US Department of Health and Human Services, Center for Disease Control and Prevention. www.cdc.gov.