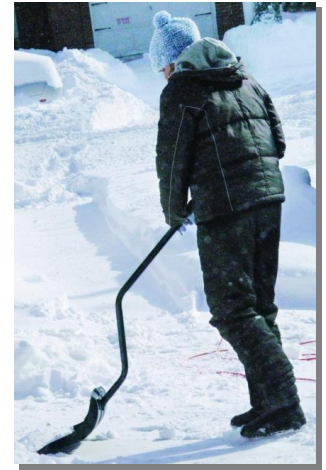


Winter Weather Body Mechanics
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With winter fast approaching there are few things that cause more injuries than shoveling. There are many medical issues that transpire while shoveling and most can be avoided with proper ergonomics. Ergonomics is the study of designing equipment and devices that fit the human body, its movements, and its cognitive abilities. Using the wrong body mechanics when shoveling snow can put undue stress on the musculoskeletal system. It can lead to a painful muscular strain, ligament/tendon strain, or possibly more serious injuries, such as a herniated disc or disc degeneration.

An ergonomic snow shovel can help take some of the effort out of your snow removal chores. A shovel with a curved handle or an adjustable handle length will minimize painful bending, requiring you to bend your knees only slightly and arch your back very slightly while keeping the shovel blade on the ground. In addition, a small, lightweight, plastic blade helps reduce the amount of weight that you are moving.

A major contributing factor to musculoskeletal injuries is cold temperatures while performing the act of shoveling. Tight/cold muscles are more prone to injuries than warm/stretched muscles. Do your body a favor by warming up for five to ten minutes before shoveling or any strenuous activity. Stretching your low back and hamstrings is essential in providing the right preparation for you body. The latest medical research has concurred that as important as stretching is before activity it is equal or more important to do so after a strenuous activity.

Shoveling small amounts of snow frequently is less strenuous than shoveling a large pile at once. If possible, removing snow over a period of hours or days will lessen the strain on the entire musculoskeletal system. In deep snow, remove a few inches off the top at a time, rather than attempting to shovel the full depth at once. When shoveling, take a break for a minute or two every 10-15 minutes or if you feel overworked at any point. Use this opportunity to stretch your arms, legs, shoulders, and back to keep them warm and flexible. When performing shoveling, the cardiovascular system is working hard due to strenuous loads and body positions. Many medical cardiovascular events will occur while shoveling leading major medical researchers to back time breaks and proper body mechanics. An ergonomic snow shovel can help take some of the effort out of your snow removal chores. A shovel with a curved handle or an adjustable handle length will minimize painful bending. In addition, a small, lightweight, plastic blade helps reduce the amount of weight that you are moving.

Important techniques with shoveling are to push the snow to one side rather than lifting it. When lifting the snow shovel is necessary, make sure to use proper ergonomic lifting techniques. Always face towards the object with shoulders and hips both squarely facing the snow. Bend at the hips/knees, not arching or flexing your low back, and push the chest out. Then, bend your knees and lift with your leg muscles, keeping your back straight. Keep your loads light and do not lift an object that is too heavy for you. If you must lift a shovel full, grip the shovel with one hand as close to the blade as comfortably possible and the other hand on the handle. Avoid twisting the back to move your object to its new location, as most injuries will occur with this

step. Always pivot your whole body to face the new direction and placement of the snow. Keep the heaviest part of the object close to your body at your center of gravity. Do not extend your arms to throw the snow as you will lose your core stabilizers and remove you from the center of gravity. Walk to the new location to deposit the item rather than reaching or tossing. When gripping the shovel, keep your hands about 12 inches apart to provide greater stability and minimize the chances of injuring your low back.

Slippery conditions while shoveling can lead to slipping and/or falls and sprains/strains and fractures that can injure your back. Shoes or boots with good treads will help to minimize injuries from slipping. Spreading sand, rock salt, or kitty litter on your sidewalk or driveway will increase traction and reduce the likelihood of slipping on the ice.

These tips can help to make snow removal less of a strain on your musculoskeletal system. Keeping these guidelines in mind during the winter season will lessen the chances of a developing new musculoskeletal problems or worsening any existing pain while shoveling, and hopefully make your winter a healthier and more enjoyable experience.