



*Health & Fitness* Weekly Wellness Message



So far we've been lucky to have a rather mild winter this year, but who knows when snow will be just around the corner. We want you to be safe! Shoveling snow is no joke – in fact it can be a serious health risk to some. According to the 1996 Surgeon General's Report on Physical Activity and Health, just 15 minutes of snow shoveling counts as a moderate intense activity. Just like you would prepare for any sporting event, you need to make sure you take proper safety measures before heading outside so that you can remain healthy and injury free.

It's often been considered an urban legend that shoveling snow can cause heart attacks. However, a recent study published in the American Journal of Emergency Medicine found that from 1990-2006 there were an average of 11,500 emergency department visits related to snow shoveling each year! While cardiac-related injuries accounted for only 7% of the total number of cases, they were of course the most serious, accounting for more than half the hospitalizations and 100% of the 1,647 fatalities associated with shoveling snow. Those 55 years and older were 4.25 times more likely to experience cardiac-related symptoms. In this same group, men were twice as likely as women to exhibit cardiac-related symptoms while shoveling snow. Cardiovascular demands of snow shoveling are increased by freezing temperatures; the heart's workload is increased and the cold temperatures add to the chances of a heart attack in at-risk individuals.

The American Heart Association offers the following tips for safer snow shoveling:

- Consult a doctor. You are considered at risk if you have a medical condition or don't exercise on a regular basis or are middle aged or older. Schedule a meeting with your doctor prior to the first anticipated snowfall.
- Give yourself a break. Take frequent rest breaks during shoveling so you don't overstress your heart. Pay attention to how your body feels during those breaks.
- Don't eat a heavy meal prior to shoveling. Eating a large meal can put an extra load on your heart.

- Don't drink alcoholic beverages before shoveling. Alcohol may increase a person's sensation of warmth and may cause them to underestimate the extra strain their body is under in the cold. Be sure to keep yourself well hydrated by drinking water.
- Be aware of the dangers of hypothermia. Heart failure causes most deaths in hypothermia. To prevent hypothermia, dress in layers of warm clothing, which traps air between layers forming a protective insulation. Wear a hat because much of your body's heat can be lost through your head.
- Use a small shovel. The act of lifting heavy snow can raise blood pressure acutely during the lift. It is safer to lift smaller amounts more times, than to lift a few huge shovelfuls of snow.
- Listen to your body. If you feel the warning signs for heart attack, stop what you're doing immediately and call 9-1-1.

Besides your heart, you also need to take care of your back! Snow shoveling is a moderately intense activity that if performed incorrectly, can put an enormous strain on your lower lumbar spine (lower back) and cause pain and injury. In this same study, the lower back was the most frequently injured region of the body. There is a right way and a wrong way to shovel snow. If you follow these simple tips, you may just be able to make it through the winter without a trip to the emergency department:

1. **Warm up.** As with any vigorous activity, warming and loosening muscles and joints can prevent injury. Spend 2-3 minutes performing arm circles, marching in place and mini-squats (plus this will impress your neighbors).
2. **Use a wide stance---at least shoulder width apart.** This will help with balance.
3. **Grip the shovel with a wide grip.** This will improve your leverage, making the snow easier to lift.
4. **Keep the shovel close to your body.** This will reduce the force transferred to your lower back.
5. **When scooping the snow, bend at your knees,** not your waist.
6. **When scooping the snow, first tighten your abdominal musculature**--this will provide your spine with added support and protection. Picture giving yourself a 'home-depot' back brace.
7. **DO NOT twist your lower back to dump the snow.** Take a step to the side, maintaining your spine in a neutral position while dumping the snow.

**Some other things to consider:**

Use a specialized shovel for pushing snow instead of lifting. Ergonomically designed shovels are a great choice to reduce the need for bending and lifting. And if all else fails, it may be worth it to invest in a snow blower or hire someone else to do it!

**Upcoming noteworthy events:** Executive Health Assessments/treadmill testing  
**Testing will take place on January 25th**  
Stop by Health Fitness (Building 59, room 118)  
to make an appointment.

Tobacco Cessation Classes (series of 2 classes)  
Class One – February 1<sup>st</sup> from 1145-1245  
Building 59, room 107

Class Two – February 7th from 1145-1245  
Ft. McNair Clinic, building 58

To register, email LtCol Rader at:  
[Karen.Rader@ndu.edu](mailto:Karen.Rader@ndu.edu) or call 202-685-4751

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