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## SPINE & SPORTS: Protect your back while shoveling

If you have to do it yourself, here is my best advice to help keep you safe when shoveling.

Basics first: if you are unhealthy or at high risk for a heart attack, then you should not be shoveling snow. Otherwise, if healthy and able, prepare in the same way you would for any physical activity that involves strength or endurance. Warm up, limber up and hydrate. Do not begin your shoveling event right after eating a big meal. Prepare just like you were going to work out at the gym.

Shoveling snow requires an important key movement, the squat. You must be able to squat using only knees and hips. One reason people blow out their back is that they bend forward at their waist. This flexes the lumbar spine and maximally loads the discs. At a loaded 30-degree flexed position, the soft, fibro-cartilage disc is very prone to giving way, tearing or herniating. Thus, to properly squat, keep your lower back straight (neutral), place your feet a little wider than your shoulders and pointed out just a little bit and then bend only knees and hips like a crane, lowering and raising your unwavering torso.

Next, you must maintain core stiffness, which means learning how to brace your abdominal muscles. Imagine how you would brace yourself if playing around with a little kid who is going to sock you in the gut. Do the same, bracing when lifting anything, including snow. Your torso, or mid-section, must be a solid barrel and not a flimsy bag. Abdominal bracing is how you create that solid state, because when bracing the abs, the deep lower back muscles also kick in and brace the spine.

“Move your nose with your toes!” You must keep your lower back always in neutral position, and all movement must come from your legs and butt and the back of shoulders. No moving the lower spine. Once you squat down and fill your shovel, and squat up to lift the load of snow, you must then “move nose with toes” by turning your foot, leg and head in the same direction you want to toss the snow. Your torso must remain neutral and solid as you step in the direction and look in the direction of the snow toss. Always keep elbows close to your body as you fling the snow. Your torso – or core – should be a rigid catapult that transfers the weight of snow from the leg and butt to the shoulder and elbow, then off the end of the shovel.

Use a bent-handle shovel and not a straight shovel. The bent-handle shovel minimizes how far down you must squat, and it puts the weight of the snow closer to your body, reducing the torque load on your lower back. Also, it better enables you to push the snow. When pushing, keep the handle right up against your lower belly, and keep abs braced while you breathe.

For those exercise fans who want to make shoveling into a workout, it is quite okay to lift and toss snow forward and behind so long as you’re squatting, pivoting only on hips, turning on feet and keeping abs braced. Toss the snow ahead or over your lead shoulder as you do your squat reps and have a good workout. For everyone else, take breaks, stay hydrated and shovel at a relaxing pace.

Videos on how to squat and shovel snow are available at [www.drgillman.com](http://www.drgillman.com).

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