

# Cardiovascular Effects of Snow Shoveling

○ Friends, I have sent this once before. I have revised it and sent this again for the benefit of those who venture into shoveling the snow this time . About hundred people, mostly men dies during or just after shoveling snow each year in US and many more are admitted to the hospital with chest pain or other heart related symptoms .

Deeper the snow and longer the snowfall, higher the rates of heart attacks.

Why should this happen? Shoveling, snow, including pushing a heavy snowblower can raise your heart rate and blood pressure more quickly and more dramatically. Snow shoveling is very similar to performing a peak exercise on a stress test, so it puts a lot of strain on your heart.

The difference is that 85% of the predicted maximum heart rate which is aimed during the peak stress test in your doctors office, is achieved within two minutes of heavy snow shoveling, and this puts a lot of strain on your heart and more so for someone who isn't used to actually exercising regularly.

**WHY SNOW SHOVELING IS DANGEROUS TO YOUR HEART** 1. Intense exercise and cold temperature. First, shoveling snow put much higher workload on the heart than what people normally do for their exercise. To estimate the intensity of an activity or exercise, experts often use the term metabolic equivalent.(Mets). One MET is how much energy you use just sitting still.

Moderate intensity exercises are 3 to 5.9 METs and vigorous exercise is like shoveling snow are 6 METs and higher. 2. So when you are shoveling snow , you can reach your maximum heart rate and Blood Pressure after just a few minutes, as your heart has to work hard to send oxygenated blood to your legs and arm muscles.

Snow shoveling requires use of arm muscles, which, for most people is more strenuous than other exercise. If you have coronary artery disease, that is one or more of your heart arteries are narrowed, there may not be enough blood to supply your heart muscles. That results in discomfort, also known as Angina. If the discomfort gets worse and persists, that is a heart attack. 3.

After a snowstorm, it is quite cold outside and windy and cold temperature can make our arteries constrict. This further worsens any blood flow problems in the arteries of the heart. So it's likely that the intense physical exertion from shoveling snow combined with cold weather is what makes this practice risky for people who have or who are at risk for heart disease.

We don't hear anyone having a heart attack while raking leaves, partly because it is not as cold and effort isn't as intense. It is about 4 METs

The impact of snow removal is especially concerning for people who already have cardiovascular risks like sedentary lifestyle, obesity, being a current or former smoker, having diabetes, high cholesterol or high blood pressure as well as people who have had a heart attack or stroke.

People with these characteristics and those who have had bypass surgery or coronary artery stenting simply should not be shoveling snow.

Symptoms of heart attack after shoveling snow Chest discomfort, trouble, breathing or discomfort that radiates down the arm or into the neck are hallmark signs of potential heart attack. If you experience any of these symptoms, stop and seek medical attention right away.

Call 911, not your spouse driving you to the ER .You should also pay attention to other less common signs of a heart attack because not everyone have classical symptoms. These less frequent symptoms include dizziness, lightheadedness, getting tired more easily, feeling like a cold sweat is coming. Unfortunately, the first symptom of heart attack could be sudden death.

So what is the solution? The philosophy that GOD PUTS THE SNOW THERE AND HE WILL TAKE IT AWAY-doesn't help-in that case, he will take several weeks.

Many Cardiologists suggest that if you had a normal stress test and the test showed no reason for concern or you routinely do vigorous exercise, such as running, playing single tennis or cycling 10 mph or faster, it is reasonable to remove an inch or two of snow from your driveway or sidewalk. But do it slowly and pay close attention to how you are feeling.

You shouldn't be doing your entire driveway at one sitting. Shovel a small portion, take rest and do some more. Even maneuvering a heavy snowblower can be taxing. Best thing to do is, after a heaviest snowfall, please play it safe and hire a professional. Please don't ask me to pay the professional. Remember, I am retired. Unfortunately you have to pay. That is the money well spent.

Remember, thick heavy snow is more difficult to clear and more strenuous. Pushing the snow with a shovel is less taxing to your heart than lifting and throwing.

**TIPS TO REDUCE THE INCREASED RISK FROM SNOW SHOVELING** -If you have known or suspected Cardiovascular disease or risk factor for heart disease, get someone else to do your snow removal for you ( NOT YOUR SPOUSE OR FRIENDS). -If you must shovel the snow, start gradually and pace yourself. -Always cover your mouth and nose, wear layered clothing, as well as a hat and gloves. -Ideally, push or sweep the snow rather than lifting and throwing it, that action involves little less exertion. -Be extremely careful when the wind is blowing, the wind makes the temperature feel even colder than it is and will increase the effect of the cold on your heart - Breathe continuously and don't hold your breath -Avoid shoveling right after waking - Stay well hydrated -Stop immediately if you feel unwell.

And also don't forget the other effects of snow shoveling, such as injuring your back, falling and having a fracture or other injuries. **DON'T COMPLAIN LATER THAT I DIDN'T WARN YOU**

All the above information are well known to all of you. I'm just reiterating the well known facts. Good Luck during this snow storm. **REMEMBER NO BODY IS IMMUNE. I STRONGLY URGE EACH ONE OF YOU TO LEARN CARDIO PULMONARY RESUSCITATION (CPR). . GOOD LUCK AND BE SAFE.**

Keshava Aithal

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