

Snow shoveling can be hazardous to your heart

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Clearing sidewalks and driveways of snow may be essential to keep from being shut in, however, the American Heart Association, the world's leading nonprofit organization focused on heart and brain health for all,

urges caution when picking up that shovel or even starting the snowblower. Research shows that many people may face an increased risk of a heart attack or sudden cardiac arrest after shoveling heavy snow.

The American Heart Association's 2020 scientific statement, [Exercise-Related Acute Cardiovascular Events and Potential Deleterious Adaptations Following Long-Term Exercise Training: Placing the Risks Into Perspective—An Update](#), notes snow shoveling among the [physical activities](#) that may place extra stress on the heart, especially among people who aren't used to regular exercise. Numerous scientific research studies over the years have identified the dangers of shoveling snow for people with and without previously known [heart disease](#).

The lead author of that scientific statement and long-time American Heart Association volunteer Barry Franklin, Ph.D., FAHA, is one of the leading experts on the science behind the cardiovascular risks of snow shoveling. He has authored a number of studies on the topic, estimating that hundreds of people die during or just after snow removal in the U.S. each year.

"Shoveling a little snow off your sidewalk may not seem like hard work. However, the strain of heavy snow shoveling may be as or even more demanding on the heart than taking a treadmill stress test, according to research we've conducted." said Franklin, a professor of internal medicine at Oakland University William Beaumont School of Medicine in Royal Oak, Michigan. "For example, after only two minutes of snow shoveling, study participants' heart rates exceeded 85% of maximal heart rate, which is a level more commonly expected during intense aerobic exercise testing. The impact is hardest on those people who are least fit."

A [study](#) conducted in Canada a few years ago found that the chance of heart attack after a snowfall increased among men but not among

women. The study found that, compared to no snowfall, a [heavy snow](#)—about 7-8 inches—was associated with 16% higher odds of men being admitted to the hospital with a heart attack, and a 34% increase in the chance of men dying from a heart attack.

Franklin said winter weather in general can contribute to the increased risk. Cold temperatures may increase [blood pressure](#) while simultaneously constricting the coronary arteries. Those factors, combined with the higher heart rate from the extra physical effort, may increase the risk for acute cardiac events. There are even studies that show an increased risk for heart attacks among people using automatic snow blowers. Similar to the extra exertion of pushing shovel, pushing a snow blower can raise heart rate and blood pressure quickly.

"The impact of snow removal is especially concerning for people who already have cardiovascular risks like a [sedentary lifestyle](#) or 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," he said. "People with these characteristics and those who have had bypass surgery or coronary angioplasty simply should not be shoveling snow."

Franklin said the most important thing is to be aware of the dangers, be prepared and take it easy, including taking short breaks. Even people who are relatively healthy should note that pushing the snow with a shovel is better physically than lifting and throwing it.

The American Heart Association urges everyone to learn the common signs of heart trouble and if you experience chest pain or pressure, lightheadedness or heart palpitations or irregular [heart](#) rhythms, stop the activity immediately. Call 9-1-1 if symptoms don't subside shortly after you stop shoveling or snow blowing. If you see someone collapse while shoveling snow, call for help and start [Hands-Only CPR](#) if they are

unresponsive with no pulse.

More information: Barry A. Franklin et al, Exercise-Related Acute Cardiovascular Events and Potential Deleterious Adaptations Following Long-Term Exercise Training: Placing the Risks Into Perspective—An Update: A Scientific Statement From the American Heart Association, *Circulation* (2020). [DOI: 10.1161/CIR.0000000000000749](https://doi.org/10.1161/CIR.0000000000000749)

Learn more about cold weather and cardiovascular disease [here](#).

Provided by American Heart Association

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