

# Exercising Safely in the Cold and the Risks of Shoveling Snow

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# Canadian Winters and Heart Disease

- \* Cold Temperatures
- \* Heavy Snowfall
- \* ↑ Admissions to Emergency Room for Heart-Related Problems
- \* ↑ Risk of Acute Myocardial Infarction
- \* ↑ Risk of Sudden Cardiac Death
- \* ↓ Exercise Tolerance
- \* Worsening Angina Symptoms



# Who is at an Increased Risk?

- \* Individuals with:

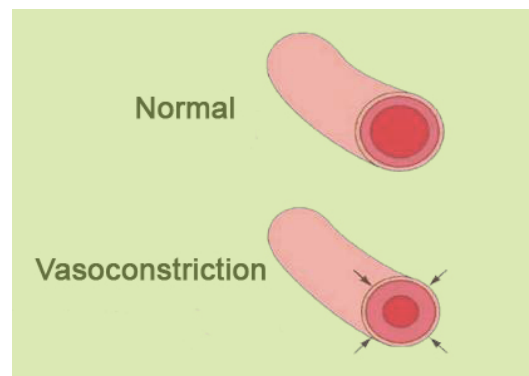
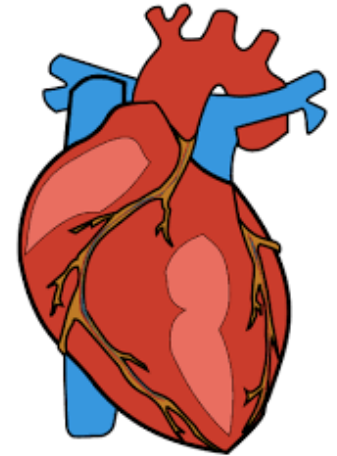
- \* Low Levels of Fitness or A Sedentary Lifestyle
- \* Existing Heart Disease
- \* Risk Factors (ex. High blood pressure, high cholesterol, obesity, cigarette smoking)
- \* History of Heart Attack or Stroke



"Unbelievable. Smoking a cigarette while shoveling snow. Did he leave a note?"

# Cold Weather and the Cardiovascular System

- \* Vasoconstriction
- \* Increased Blood Pressure
- \* Increased Risk of Blood Clots
- \* Decreased Oxygen Supply to the Heart
  - \* Mismatch between supply and demand
- \* Snow and Wind Increases the Level of Effort Required



# Cardiac Demands of Shoveling or Exertion in the Snow

- \* Such as walking through heavy snow, against strong winds, shoveling or pushing a snow blower
- \* Study: Cardiac Demands of Heavy Snow Shoveling (Franklin et al., 1995)
  - \* Systolic blood pressure was significantly higher than during maximal treadmill testing
  - \* Up to 97% of maximal heart rate



# Should I Just Avoid Exercise in the Winter?

- \* No!! Exercising is Still Very Important!
- \* Exercising Outside Helps to Prevent Seasonal Affective Disorder (SAD)
- \* “You Can Not Store Fitness”



# How to Lower Your Risk While Removing Snow



- \* Don't shovel within
  - \* Half an hour of waking up
  - \* Half an hour after eating a heavy meal
  - \* An hour after drinking coffee or smoking
- \* Warm up first!
- \* Use a Small Shovel
- \* Take Frequent Breaks



# How to Lower Your Risk While Exercising in the Cold or Snow



- \* Stay Hydrated
- \* Dress warmly and in layers
- \* Wear a hat, scarf, gloves and thermal socks
- \* Proper Footwear
- \* Avoid Alcohol
- \* Pay attention to warning signs of having a heart attack or stroke



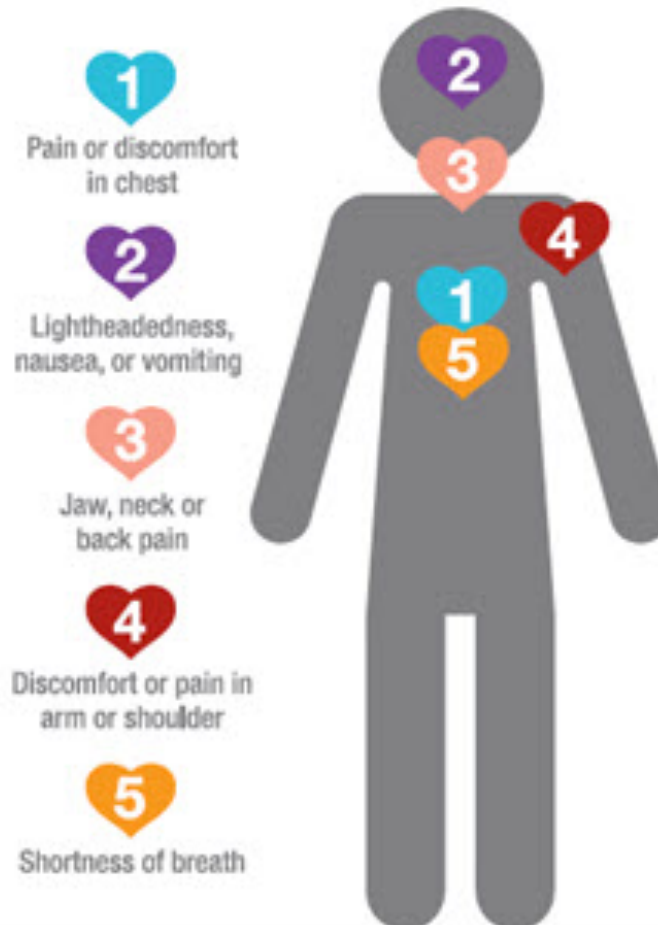


# Listen to Your Body

\*Stop the activity if you feel lightheaded, dizzy, short of breath, tightness/discomfort in your chest, severe headache or nausea!



# Common Heart Attack Warning Signs



# What About a Stroke?

- F** **ace** is it drooping?
- A** **rms** can you raise both?
- S** **peech** is it slurred or jumbled?
- T** **ime** to call 9-1-1 right away.

# Tips

- \* Plan ahead
- \* Pushing a snow blower is also strenuous and puts you at an increased risk too
- \* There are many private companies that can clear your snow for you
- \* Or a youngster in the neighbourhood might appreciate a little spending money!

