Common Injuries

- 1,647 deaths from 1990 to 2006
- Average of 100 deaths and 11,500 emergency room visits each year
- Most common cause of injury is acute musculoskeletal exertion (54%)
  - Lower back is most frequently injured
  - Slips and falls second most common cause of injury
Common Injuries (cont.)

- Heart problems – 7% of injuries, 100% of deaths
  - Cold weather restricts blood vessels, decreases oxygen received by heart, blood more likely to clot
  - Blood pressure and heart rate spike
  - More prevalent among those with preexisting conditions
- Hypothermia/Frostbite – body parts not protected from cold
  - Often occurs in fingers, toes, nose, ears, cheeks, chin
- Dehydration

Recommendations – Before You Shovel

- Use ice melt, salt, or sand to decrease icy surface hazards
- Avoid shoveling right after you wake up because most heart attacks occur in the morning when your blood is prone to clotting
- Eat a light meal (heavy meals divert blood from heart to stomach)
  - Don’t drink coffee or alcohol
- Warm up first (walking, stretching, etc.)
- Start shoveling when a light covering is on the ground
  - Fresh dry snow is easier than packed or partially melted snow
Recommendations – Before You Shovel (cont.)

• Proper attire - layers to avoid hypothermia or overheating
  • Breathable first layer allows perspiration to escape
  • 50% of body heat lost through head and neck
  • Cover your mouth (breathing cold air can cause breathing problems)
  • Gloves and water resistant boots with good traction

• Shovel – small plastic shovels are lighter, stick to snow less
  • Shovels with a bent shaft easier on the back
  • Wax shovel blade so snow doesn’t stick to it

Recommendations – Proper Form

• Push snow, don’t lift (especially when snow is wet and heavy)

• If you have to lift:
  • Bend hips and knees, lift with legs while keeping back straight
  • Turn feet to direction you are throwing (don’t twist your waist or throw over your shoulder or to the side)
  • Walk and dump snow instead of throwing it
  • Switch between left and right hands to work different muscles
Recommendations – While You Shovel

• Shovel off small sections at a time, only take off top layer if there is a lot
  • Better to take a long time and do small sections
• Take breaks often (~15 minutes)
• Drink plenty of water
• Stop when you feel something wrong
  • Dizziness, shortness of breath, discomfort in chest, arms, back, neck, jaw, stomach could all be signs of a heart attack

Sources

• https://www.metrohealth.org/shoveling-and-your-risk-for-heart-attack
• http://safemt.com/snow-shoveling-hazards/
• https://www.ecohs.ca/oshanswers/ergonomics/snow_shovelling.html
• https://www.thespruce.com/snow-shoveling-tips-2132769
• http://www.bctv.org/special_reports/health/snow-shoveling-safety/article_592cc8f6-b743-11e6-bf96-e3c71714c07f.html
• http://www.shakopeechiropractormn.com/snow-shoveling-injuries/