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# WINTER / HOLIDAY SAFETY

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## MASHA Resources

Information for any of the following MASHA products may be obtained by contacting Jean Chadbourn at [jeanchadbourn@masha.on.ca](mailto:jeanchadbourn@masha.on.ca), or (705)474-7233 ext. 279.

## Winter Driving Safety Meeting Topic

Non-members: \$75.00

Members: \$25.00

## Online

- Alberta Human Resources and Employment
  - Working in the Cold:  
<http://www3.gov.ab.ca/hre/whs/publications/pdf/mg021.pdf>  
  
Describes heat loss, the effects of cold on performance, prevention and control, and potential health problems.
- American Red Cross
  - Winter Storms  
[http://www.redcross.org/services/disaster/0,1082,0\\_595\\_,00.html](http://www.redcross.org/services/disaster/0,1082,0_595_,00.html)  
  
Outlines what steps need to be taken before, during, and after a winter storm.
- Canada Safety Council
  - Candle Safety  
<http://www.safety-council.org/info/home/candles.html>  
  
Provides some precautions about burning candles.
  - Home Fire Safety  
[http://www.safety-council.org/info/home/xmas\\_fire.htm](http://www.safety-council.org/info/home/xmas_fire.htm)  
  
Some general home fire safety tips, including some safety-related gift suggestions.
  - Winter Safety  
<http://www.safety-council.org/news/media/releases/winter.html>  
  
This page links for cold weather hazards, winter driving, snowmobiling and dressing for the cold.
- CCOHS

- CCOHS Answers:
- Driving Tips: Winter  
[http://www.ccohs.ca/oshanswers/safety\\_haz/icesnow.html](http://www.ccohs.ca/oshanswers/safety_haz/icesnow.html)
- Cold Environments: General  
[http://www.ccohs.ca/oshanswers/phys\\_agents/cold\\_general.html](http://www.ccohs.ca/oshanswers/phys_agents/cold_general.html)
- Cold Environments: Health Effects and First Aid  
[http://www.ccohs.ca/oshanswers/phys\\_agents/cold\\_health.html](http://www.ccohs.ca/oshanswers/phys_agents/cold_health.html)
- Cold Environments: Working in the Cold  
[http://www.ccohs.ca/oshanswers/phys\\_agents/cold\\_working.html](http://www.ccohs.ca/oshanswers/phys_agents/cold_working.html)

These Q&A topic pages discuss issues such as safe driving tips, how the body adjusts to the cold, thermal balance, exposure limits, PPE, and first aid procedures for frostbite and hypothermia.

- Canadian Council of Snowmobile Organizations

- Hand Signals  
<http://www.ccsso-ccom.ca/newsite/handsigs.html>

Demonstrates the various hand signals used in snowmobiling.

- Safe Trails  
<http://www.ccsso-ccom.ca/newsite/infra.html>

This page discusses design, signage, grooming and maintenance snowmobile trail infrastructure

- Recommended Minimum Ice Thickness  
<http://www.ccsso-ccom.ca/newsite/icechart.html>

Includes an ice-thickness reference chart for various activities.

- Safe Riding  
<http://www.ccsso-ccom.ca/newsite/saferidr.html>

Identifies safe driving practices as well as potential hazards.

- Canadian Mortgage and Housing Corporation

- Removing Ice on Roofs  
<http://www.cmhc-schl.gc.ca/en/burema/gesein/abhose/loader.cfm?url=/commonspot/security/getfile.cfm&PageID=51678>

“Describes some of the techniques developed from the research for dealing with extensive roof icing and ice dam problems.”

- Centers For Disease Control
  - Emergency Preparedness and Response: Winter Weather  
<http://www.bt.cdc.gov/disasters/winter/>  
 Provides safety tips and general information on winter emergencies.
- Construction Safety Association of Ontario
  - Winter Construction: Safety Tip  
[http://www.csa.org/images/pfiles/168\\_Safety\\_Tips\\_022.pdf](http://www.csa.org/images/pfiles/168_Safety_Tips_022.pdf)  
 Identifies the hazards on work surfaces and vehicles during the winter months.
- Environment Canada
  - Wind Chill Program  
[http://www.msc.ec.gc.ca/education/windchill/index\\_e.cfm](http://www.msc.ec.gc.ca/education/windchill/index_e.cfm)  
 Access to online wind chill calculator, fact sheet, charts and tables, and frostbite information
  - General Precautions (Prairie and Northern Regions)  
<http://www.mb.ec.gc.ca/air/wintersevere/general.en.html>  
 “[These] general precautions outline how to minimize the effects of winter weather and prepare in advance for severe weather conditions.”
- Health Canada: Healthy Environments and Consumer Safety
  - Fun and Safe Holiday Season  
[http://www.hc-sc.gc.ca/hecs-sesc/cps/holiday\\_safety.htm](http://www.hc-sc.gc.ca/hecs-sesc/cps/holiday_safety.htm)
  - Candle Safety  
<http://www.hc-sc.gc.ca/hecs-sesc/cps/publications/candles.htm>
  - Winter Sports Safety  
<http://www.hc-sc.gc.ca/hecs-sesc/cps/publications/winter.htm>
  - Holiday Safety  
<http://www.hc-sc.gc.ca/english/feature/holidays/>
- Healthy Ontario
  - It’s Cool to Be Warm  
[http://www.healthyontario.com/english/features\\_details.asp?channel\\_id=0&aggregate\\_id=88&text\\_id=715](http://www.healthyontario.com/english/features_details.asp?channel_id=0&aggregate_id=88&text_id=715)
  - Beware of the Snow Shovel if You Have Heart Woes

[http://www.healthyontario.com/english/news\\_details.asp?channel\\_id=0&ext\\_id=1414](http://www.healthyontario.com/english/news_details.asp?channel_id=0&ext_id=1414)

- Winter Chill Can Be Tough On Your Toes  
[http://www.healthyontario.com/english/news\\_details.asp?channel\\_id=0&ext\\_id=1374](http://www.healthyontario.com/english/news_details.asp?channel_id=0&ext_id=1374)
- Snowmobiling Leading Cause of Severe Winter Injuries  
[http://www.healthyontario.com/english/news\\_details.asp?channel\\_id=0&ext\\_id=731](http://www.healthyontario.com/english/news_details.asp?channel_id=0&ext_id=731)

Each of these news features

- Medline Plus

- Frostbite  
<http://www.nlm.nih.gov/medlineplus/ency/article/000057.htm>
- Hypothermia  
<http://www.nlm.nih.gov/medlineplus/hypothermia.html>

Provides links to the overview, diagnosis, symptoms, and treatment of these cold-related health conditions.

- MSHA

- Winter Alert 2004/2005: Get a Hold on Winter Hazards  
<http://www.msha.gov/Alerts/WinterAlert2004/Winteralert2004.asp>

Resources available from this site include a campaign presentation, as well as samples of posters, stickers, and signs. Focus is on the coal mining industry.

- National Safety Council

- Winter, Your Car, and You  
<http://www.nsc.org/library/facts/winter.htm>
- Surviving the Cold Weather  
<http://www.nsc.org/library/facts/cold.htm>
- Holiday Season Safety  
<http://www.nsc.org/library/facts/holseasn.htm>
- Christmas Tree Tips

Suggestions for making winter driving safer.

Offers tips on how to keep warm and to avoid frostbite/hypothermia.

General ideas to keep your holidays safe.

<http://www.nsc.org/library/facts/xmastree.htm>

Offers pointers on Christmas tree safety “to make sure a mishap doesn't spoil your holiday season.”

- Snow Shoveling

<http://www.nsc.org/library/facts/snowshov.htm>

“While shoveling snow can be good exercise, it can also be dangerous for optimistic shovelers who take on more than they can handle. The National Safety Council offers ... tips to help you get a handle on safe shovelling.”

- Preventing Frostbite and Hypothermia

<http://www.nsc.org/library/facts/frstbit.htm>

“Prolonged exposure to low temperatures, wind or moisture—whether it be on a ski slope or in a stranded car—can result in cold-related illnesses such as frostbite and hypothermia. The National Safety Council offers these tips to help you spot and put a halt to these winter hazards.”

- Ontario Ministry of Labour

- Alert: Snow Loading and Roof Failures

<http://www.gov.on.ca/LAB/english/hs/alerts/a17.html>

- Ontario Ministry of Transportation

- Safe Snowmobiling

<http://www.mto.gov.on.ca/english/safety/quicknotes/snowmobile.htm>

Includes tips on driving safely on a snowmobile.

- Snow and Ice Control

<http://www.mto.gov.on.ca/english/safety/icecontrol/icecontrol.htm>

An information sheet that discusses: adjusting for winter driving; safe driving procedures around plows and other snow/ice removal vehicles; melting snow and ice; providing traction; snow and ice condition standards; changing road conditions; road closures; and emergency vehicles.

- When Visibility Turns Bad: Driving in Blowing Snow and Whiteouts

<http://www.mto.gov.on.ca/english/safety/quicknotes/badsnow.htm>

What you should and shouldn't do when blowing snow becomes an obstruction on the road.

- Winter Driving

<http://www.mto.gov.on.ca/english/safety/winterdrive/winterdrive.htm>

Provides a driver's checklist for winter driving.

- Winter Road Condition Reports  
<http://www.mto.gov.on.ca/english/traveller/conditions/>  
 Reports on road conditions throughout the province.
- OSHA
  - Cold Stress Card  
<http://www.osha.gov/Publications/osha3156.pdf>  
 A handy downloadable brochure explaining how to protect workers from cold exposure.
- Public Safety and Emergency Preparedness Canada
  - Winter Driving  
[http://www.ociepc-bpiepc.gc.ca/info\\_pro/self\\_help\\_ad/general/winterdriv\\_e.asp](http://www.ociepc-bpiepc.gc.ca/info_pro/self_help_ad/general/winterdriv_e.asp)
  - Winter Power Failures  
[http://www.ociepc-bpiepc.gc.ca/info\\_pro/self\\_help\\_ad/general/power\\_e.asp](http://www.ociepc-bpiepc.gc.ca/info_pro/self_help_ad/general/power_e.asp)
- Pulp and Paper Health and Safety Association
  - Safety Meeting Topic: Winter Driving  
<http://www.pphsa.on.ca/Products/FreeSafetyMeetingTopics/FreeSafetyMeetingTopics.htm>  
 PPHSA's "self-contained training packages ... provide everything you need to hold an interesting and effective safety meeting. Each package contains an information package, a leaders guide and participant manual or handouts."
- SafeCanada.ca
  - Holiday Safety  
[http://www.safecanada.ca/holiday\\_e.asp](http://www.safecanada.ca/holiday_e.asp)  
 Various tips are provided: being a responsible host; managing holiday stress; toy information; Christmas tree safety; efficient usage of fireplaces; and travelling during the holidays.
- Saskatchewan Labour
  - Cold Conditions Guidelines for Outside Workers  
<http://www.labour.gov.sk.ca/safety/thermal/cold/index.htm>
- St. John's Ambulance

- Winter Safety and First Aid Tips  
[http://www.sja.ca/english/safety\\_tips/safety\\_tips/winter.asp](http://www.sja.ca/english/safety_tips/safety_tips/winter.asp)  
 Tips on winter driving, treating injuries, ice fishing, snowmobiling, recognizing frostbite/hypothermia, holiday safety, and other associated hazards.
- Search and Rescue Society of British Columbia
  - Hypothermia  
<http://www.sarbc.org/hypo.html>  
 Links on hypothermia prevention, cold survival, cold stress, warning signs, and treatment.
- Technical Standards and Safety Authority
  - Safetyinfo.ca: Holiday Safety  
[http://www.safetyinfo.ca/leisure\\_safety/holiday\\_safety/default.asp](http://www.safetyinfo.ca/leisure_safety/holiday_safety/default.asp)
  - Home Heating  
[http://www.safetyinfo.ca/home\\_safety/home\\_heating\\_safety/default.asp](http://www.safetyinfo.ca/home_safety/home_heating_safety/default.asp)
  - Carbon Monoxide  
[http://www.safetyinfo.ca/home\\_safety/co\\_safety/default.asp](http://www.safetyinfo.ca/home_safety/co_safety/default.asp)
  - Fire Safety  
[http://www.safetyinfo.ca/home\\_safety/fire\\_safety/default.asp](http://www.safetyinfo.ca/home_safety/fire_safety/default.asp)
- Transport Canada
  - Safe Snowmobiling  
<http://www.tc.gc.ca/roadsafety/tp2436/rs200001/snowmob.htm>
  - Winter Tire Safety Tips  
<http://www.tc.gc.ca/roadsafety/Topics/winter/Wintere.htm>  
 This “list contains the model names of tire brands certified by the manufacturers to meet the severe snow tire standard.”
- Transportation Health and Safety Association of Ontario
  - Winter Driving Pamphlet  
[http://www.thsao.on.ca/publications/winter\\_driving.pdf](http://www.thsao.on.ca/publications/winter_driving.pdf)  
 “This booklet has been prepared to assist commercial drivers and those drivers who share the road with them. It provides guidelines for safe driving through hazardous winter months.”
- Workers Compensation Board of BC
  - Hypothermia: Surviving the Cold

[http://www.worksafebc.com/publications/health\\_and\\_safety\\_information/by\\_topic/assets/pdf/hypothermia.pdf](http://www.worksafebc.com/publications/health_and_safety_information/by_topic/assets/pdf/hypothermia.pdf)

“This pamphlet gives ... a basic understanding of when and why hypothermia occurs. It tells you how to protect yourself from becoming a victim of harmful exposure to the cold. It also tells you how to recognize the onset of hypothermia and how to treat victims of hypothermia.”

### **Journal Articles:**

*Accident Prevention*. 1999. “Vital Signs of Cold Injury: How You Can Help.” 46(6): 11.

“Considers the vital signs of cold injury and sets out ways to prevent frostbite and hypothermia resulting from extreme cold exposure. Provides a checklist of frostbite and hypothermia warning signs. Presents a list of do's and don'ts to help prevention or relieve the symptoms of these health hazards.”

Bell, J.L, Gardner, L.I., and D.P. Landsittel. 2000. “Slip and fall-related injuries in relation to environmental cold and work location in above-ground coal mining operations.” *American Journal of Industrial Medicine* 38 (1): 40-48.

“The association between slip and fall-related injuries and environmental temperature was examined for enclosed, outdoor and enclosed-outdoor jobs in the coal mining industry having varying exposure to cold temperatures.”

Corbin, D.E. 2000. “Surviving the Winter's Chill.” *Occupational Health and Safety* 69 (1): 46-48.

“Looks at the hazards of working in cold conditions, including frostbite, hypothermia, and trips and falls on icy surfaces. Describes suitable protective clothing and footwear, and outlines work practices designed to lessen the risks to workers.”

Hassi, J., et al. 2000. “Occupational Injuries in the Mining Industry and Their Association with Statewide Cold Ambient Temperatures in the USA.” *American Journal of Industrial Medicine* 38 (1): 49-58.

“The association of ambient temperature and wind data from the National Climatic Data Center with injury data from mines reported to the Mine Safety and Health Administration (MSHA) was evaluated over a 6-year period from 1985-1990 ... This study demonstrates the existence of an association between ambient temperatures and occupational slip and fall injuries.”

Hassi, J., and T. Makinen. 2000. “How to Assess and Manage Cold-Related Risks in Northern Workplaces?” *Barents Newsletter on Occupational Health and Safety* 3(1-2): 23-26.

“Exposure to low temperatures at work can give rise [to] frostbite and hypothermia. Indirect effects and effects from longer-term exposure include a reduction of mental awareness, musculoskeletal, cardiovascular and respiratory diseases, and hyper-reactivity to cold, such as cold-induced urticaria, common in Finland. This article describes a European Union project aimed at developing tools for cold work risk assessment and management in order to reduce or prevent cold-related adverse effects.”

Holmer, I. 1994. "Cold Stress: Part I – Guidelines for the Practitioner." *International Journal of Industrial Ergonomics* 14 (1-2): 139-149.

"A review of guidelines for practitioners involved in the design, planning and control of cold stress was presented."

Holmer, I. 1994. "Cold Stress: Part II – The Scientific Basis (Knowledge Base) for the Guide." *International Journal of Industrial Ergonomics* 14 (1-2): 151-159.

"The scientific basis for guidelines for practitioners managing cold stress was presented."

Nash, J.L. 1999. "Protecting Workers in Cold Conditions." *Occupational Hazards* 61 (10): 133-136.

"Employees working in cold environments face a number of hazards, including being slow to know they are in danger. Cold weather clothing provides protection against harsh weather but also greatly reduces a worker's ability to see and hear. Warns that being wet and cold is the most dangerous condition."

Rodahl, K. 2003. "Occupational Health Conditions in Extreme Environments." *Annals of Occupational Hygiene* 47 (3): 241-252.

"Discusses various aspects of work in hot and cold environments and at high pressure. Covers: the effect of heat stress on heart rate; a case study of heat strain in an aluminium plant; failure to tolerate heat; the importance of age; mental work capacity during exposure to heat or cold; cold injury; hypothermia; circadian rhythms and performance; the physiological effects of shiftwork and the effects of working with high gas pressures."

Smith, Joseph A. 1997. "Preparing for Winter: Proactive Measures to Prevent Injury and Property Damage." *Professional Safety* 42 (8): 28-32

"Provides measures for facilities to undertake to minimize bodily injury and property damage caused by winter conditions."

Willen, Janet. 1997. "Take the Chill Out of Winter Work." *Safety & Health* 155 (1): 26-30.

"Presents tips to help keep workers safe and warm during winter in the United States."

#### **Other:**

*Cold Weather Workers Safety Guide*. 1999. 2<sup>nd</sup> ed. Hamilton: Canadian Centre for Occupational Health and Safety, 106 p.

"This guide for the prevention of hazards due to outdoor work in cold weather ... is aimed at workers, supervisors, safety and health representatives, and occupational safety and health professionals."