In this issue of the Environmental Health and Safety (EHS) Listserv – January 8, 2025

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1. Safely Moving Snow

Nationwide, snow shoveling is responsible for thousands of injuries and as many as 100 deaths each year. Snow shoveling and/or use of a snow blower present a number of hazards. Here are some tips to help keep you safe while moving snow.

Preparation:

- **Dress appropriately**. Wear water-repellent clothing, layered to allow removal of a layer to prevent overheating. Cover your head, hands, and feet with weather-appropriate gear. Wear shoes/boots with slip-resistant soles.
- **Timing matters**. Start snow removal when there is a light covering and repeat. Do not wait for the snow to stop/accumulate. Do not plan to shovel immediately after eating and avoid caffeine before beginning.
- Clear vision is important. Be sure your cold weather clothing does not
 obstruct your vision so you can watch for icy spots/uneven surfaces.
 Maintain awareness of your surroundings so you do not inadvertently find
 yourself in a traffic path as vehicles may not have good traction on the
 snow/ice.
- Prepare yourself. Shoveling snow can raise your heart rate and blood pressure. Snow shoveling is an aerobic activity. Warm up before shoveling, stretching as you would for any workout. Walking a few minutes or marching in place is one suggestion for a "warm-up." Cold, tight muscles are more likely to result in a sprain or strain. If you have a history of heart or other medical problems or do not exercise regularly, check with your doctor before shoveling.

While shoveling:

- Pace yourself. Take it slow and stretch before you begin. Take frequent breaks and drink plenty of water to prevent dehydration. Stop shoveling immediately if you experience pain or difficulty breathing or become fatigued.
- **Use proper equipment**. Use a shovel that is comfortable for your height and strength. Sometimes a smaller blade is better as it avoids the risk of trying to pick up too much snow at once.
- Use proper technique. When gripping the shovel position your hands
 12 inches apart. This increases leverage and reduces the strain on your body.
- Push the snow, if possible. Lift only when necessary. If you must lift, lift properly.
 - Lift a shovel of snow with your legs and tighten your stomach muscles.
 - Keep your back straight and do not bend at the waist.
 - Scoop small amounts. Walk to where you want to dump the snow.
 - Never remove deep snow all at once, rather shovel an inch or two and repeat.
 - Do not twist your body to shovel or empty the load. Never throw snow over your shoulder.

If possible, use a snow blower instead of shoveling by hand. However, recognize that a snow thrower presents unique hazards. These are a few tips to help prevent injury when using a snow thrower:

- Never wear loose pants, jackets, or scarves. Loose clothing can become entangled in moving parts and pull you in. Wear boots with good traction.
- Operate snow blowers only when there is good visibility.
- Keep your hands away from moving parts! To resolve jams, shutoff the engine and wait more than five seconds to ensure all moving parts are still. Use a solid object to clear the chute.
- **Do not leave the snow blower unattended.** Shut off the engine if you must walk away.
- Add fuel before starting the machine, never while the engine is running or hot. Be sure to fuel the snow blower outside, not in a garage, shed or another enclosed area. Do not operate in an

- enclosed area to avoid being overcome by engine fumes (carbon monoxide).
- Avoid the engine. The engine becomes hot during use and can burn unprotected flesh.
- **Use the pull-cord safely.** Hold cord firmly, stand with feet wide apart. Do not force the cord if it does not move freely. Sharply pulling can cause upper body/back injury.
- Watch the power cord. For electric snow blowers, remain aware of the power cord location. Entangled/severed power cords can lead to shock or electrocution.
- Do not remove safety devices and keep hands and feet away from moving parts. Safety devices, shields, guards, and interlocks are there for operator protection.
- Watch out for motor recoil. After the machine is turned off there is a brief recoil of motor and blades.
- Keep others away, including children. Snow blowers can pick up and shoot objects such as rocks and other debris with significant force. Take care to properly position the discharge chute to avoid directing snow into the path of others in the area.
- **Wear earplugs.** Gas-powered models typically run about 85 decibels so protect your hearing.
- **Wear goggles.** Protect your eyes from small stones or other items that can be thrown up by a snow blower.
- **Understand the machine.** Read the instruction manual prior to use and be familiar with all features. Do not attempt to operate, repair, or maintain the snow blower without reading the instruction manual.

Use of a snow blower does not make snow removal either effortless or risk-free. Using a snow blower is still physical labor done outdoors in snow and cold. Follow these tips for snow shoveling and using a snow blower to stay safe removing snow.

General Resources

- National Safety Council "Why do People Die Shoveling Snow?" https://www.nsc.org/home-safety/tools-resources/seasonalsafety/winter/snow-shoveling
- Prevent snow shoveling and snowblowing injuries OrthoInfo AAOS. (n.d.). https://orthoinfo.aaos.org/en/staying-healthy/prevent-snow-shoveling-and-snowblowing-injuries/

- Consumer Reports "Commonsense tips for safer snow blowing" http://www.consumerreports.org/cro/news/2013/12/common-sense-tips-for-safer-snow-blowing/index.htm
- Canadian Centre for Occupational Health and Safety "Landscaping Snow Blower"
 https://www.ccohs.ca/oshanswers/safety haz/landscaping/snow thrower s.html
- OSHA Winter Weather Hazards/Precautions https://www.osha.gov/winter-weather/hazards
- OSHA Protecting Workers from Cold Stress https://www.osha.gov/Publications/OSHA3156.pdf

2. Safety Shorts – Shovel and Snow Blower Safety

The following videos provide tips on safely moving snow, whether shoveling or using a snow blower.

- Snow Shoveling Safety (Cleveland Clinic, 2:06 minutes) https://www.youtube.com/watch?v=-IMXSEIabMM
- Easy Snow Shoveling Techniques LSTraining.com (LS Training System, 2:26 minutes) https://www.youtube.com/watch?v=hX6uaTivlcQ
- Snowblower Safety (Grabow Hand to Shoulder Center, 2.47 minutes) https://www.youtube.com/watch?v=G00z3F ImeY
- Snow Blower Safety Tips (Toro, 3:14 minutes) https://www.youtube.com/watch?v=qLp75kUdRDw

NOTE: Resources are provided for informational purposes only. Publication does not in any way endorse a particular company or product or affect current UNL policies and procedures.

3. Safe Lifting

Recently there have been a number of injury incidents at UNL related to lifting/moving items. Over the last year, 13% of all injury incidents reported related to material handling. Tips to prevent back injuries:

Size it up. Manage your storage areas so you don't store heavy items above waist level. Is the load light enough to be lifted by one person? If not, use a hand truck/cart or ask a co-worker for assistance. If the load is awkwardly shaped or has moving items within the load you should also ask a co-worker for assistance. Do not stack items you wish to move, rather make more than one trip.

Safely lift. If the load can be lifted without help, hold it as close to your body as possible. Lift with your legs, not your back. Keep your head up, back straight, and bend at the hips. Make sure the load does not obstruct your vision. Manage your storage area so you do not lift above your shoulders as this puts you at risk for neck and shoulder injuries too.

Move with care. Keep the load close to your body as you walk. Make sure your intended path is not obstructed. Retain awareness of the location of your hands and other body parts so as to avoid collision with immovable objects. Shift your body to turn, don't twist your body while lifting/carrying/depositing a load.

Don't just drop it. When you are ready to set down the load, keep your fingers and toes clear of the load. Let your leg muscles slowly move the load down to the surface.

Resources

- Reduce the risk of back injuries. (2022, July 19). 2021-08-29 | Safety+Health.
 - https://www.safetyandhealthmagazine.com/articles/21628-reduce-the-risk-of-back-injuries?utm_source=top-tips-email-july18&utm_medium=email&utm_campaign=top-tips
- General Material Handling/Safe Lifting SOP https://ehs.unl.edu/sop/s-gen-safe-lifting.pdf

4. Driving Safely in the Dark

This time of year, you are likely to find yourself spending more time driving in the dark. Depth perception, color recognition and peripheral vision can be compromised, and the glare of headlights from an oncoming vehicle can temporarily blind a driver. Fatigue, compromised night vision, rush hour and impaired drivers are some of the other risks you could face when you are driving at night.

These tips from the National Safety Council can help you stay safe behind the wheel.

Drive slower. Even with high beams, visibility is limited to about 500 feet (250 feet with normal headlights) allowing less time to react to something in the road. Additionally,

- Make sure the headlights are clean.
- Dim your dashboard.
- Make sure your eyeglasses, if any, are anti-reflective.
- Clean the inside as well as outside of the windshield to eliminate streaks.

Account for compromised night vision. Night vision is the ability to see well in low-light conditions. As people age, that ability decreases. When encountering other vehicles' oncoming headlights, night vision is temporarily reduced. To help mitigate issues with night vision:

- Look to the line on the right side of the road when encountering oncoming bright headlights.
- Have annual eye exams.
- Reduce speed.
- Minimize distractions like talking to passengers or listening to the radio.
- Check with your doctor about side effects of prescription drugs.
- Limit driving to daytime hours as much as possible.

Fatigue. A report by NHTSA (National Highway Traffic Safety Administration) identified that 100,000 police-reported crashes are a result of driver fatigue. Most crashes or near misses happen at the times you would expect drivers to be tired: 4 to 6 a.m., midnight to 2 a.m. and 2 to 4 p.m. The reasons are many – shift work, lack of quality sleep, long work hours, sleep disorders. Falling asleep at the wheel doesn't only happen on lengthy trips. To ensure you don't fall asleep while driving:

- Get seven or more hours of sleep a night.
- Don't drive if you've been awake for 16 hours or more.
- Stop every two hours to rest.
- Travel during times you are normally awake.

Rush hour. Evening rush hour (between 4 and 7 p.m. weekdays) is a dangerous time to drive due to crowded roadways and drivers eager to get home after work. In winter, it's dark during rush hour, compounding an already dangerous driving situation. How to get home safely during rush hour:

Don't be an impatient driver; slow down.

- Stay in your lane and beware of drivers who dart from lane to lane.
- Even though the route may be familiar, don't drive on autopilot; stay alert.
- In unfamiliar areas, consult a map before you go and memorize your route or set up your audio map directions prior to starting the vehicle.
- Don't touch your phone, eat, drink or do other things that are distracting.

Impaired drivers. About one-third of all traffic fatalities involve a driver impaired by alcohol. Drivers impaired by prescription medicines and other drugs increase that number significantly. Impaired drivers are most frequently on the road after dark, particularly between the hours of midnight and 3 a.m. on weekends.

- Don't drive impaired.
- If you need to drive between midnight and 3 a.m. increase your vigilance and consider taking roads less traveled rather than the main thoroughfares.

Stay alert, stay alive. Even though we do only one quarter of our driving at night, 50% of traffic deaths happen at night. Take extra precautions driving in the dark!

Resources

The Most Dangerous Time to Drive. (2024, October). NSC/Safe Driving/Road Safety Topics. Retrieved December 13, 2024, from https://www.nsc.org/road/safety-topics/driving-at-night?utm_source=sfmc&utm_medium=email&utm_campaign=dailyoct28
&utm_content=

5. Near Miss or Near Hit?

The Chancellor's University Safety Committee (CUSC) is reaffirming their goal to focus more intensely on Near Miss/Close Call reporting and to also encourage reporting of unsafe practices. To support that effort, the EHS "Near Miss/Close Call Incident Reporting Form" allows for reporting of unsafe practices. A near miss can also be thought of as a near hit! The EHS poster and digital signage has recently been updated so pleas request a copy of the updated digital file or poster/s if you have them or would like to have them on display as a reminder to those in your area.

By reporting near misses, "close calls," or unsafe practices, you are contributing to a safer and healthier campus environment. Information reported is shared throughout the University for educational/awareness purposes. Specific

identifying information (e.g., names, departments, etc.) is not included in informational publications. Participation will benefit the entire campus community. Be assured that there is no risk of repercussions for reporting a situation or hazard.

A "near miss" can also be viewed as a "near hit!" History has shown that most incidents resulting in injury or other loss were preceded by warnings or near miss incidents. Next time you see something and think, "This could have ended up very badly," report that online to help your fellow workers throughout the university stay safe.

Resources

Near-Miss/Close Call Incident Reporting Form https://ehs.unl.edu/near-missclose-call-incident-reporting-form

Adopt Safety as Your Attitude – DON'T LEARN BY ACCIDENT!

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