

In this issue of the Environmental Health and Safety (EHS) Listserv – January 12, 2022

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1. Safe Snow Shoveling and Snow Blowing

Snow shoveling and use of a snow blower present a number of hazards. Here are some tips to help keep you safe while shoveling 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. 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.** Snow shoveling is an aerobic activity. 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 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.
- **Push the snow, if possible. Lift only when necessary. If you must lift, lift properly.**
 - Position your hands 12 inches apart on the shovel to increase leverage and reduce strain.
 - Lift with your legs and tighten your stomach muscles.
 - Keep your back straight and do not bend at the waist.
 - Scoop small amounts and 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 blower presents unique hazards. These are a few tips to help prevent injury:

- **Never wear loose pants, jackets, or scarves.** Loose clothing can become entangled in moving parts and pull you in with them.
- **Operate snow blowers only when there is good visibility.**
- **NEVER stick your hands in the snow blower!** To resolve jams, shut-off 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 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 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.
- **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.

Resources

- National Safety Council “*Why do People Die Shoveling Snow?*”
<https://www.nsc.org/home-safety/tools-resources/seasonal-safety/winter/snow-shoveling>
- American Association of Orthopedic Surgeons “*Orthoinfo: Prevent Snow Shoveling and Snowblowing Injuries*”
<http://orthoinfo.aaos.org/topic.cfm?topic=A00060>
- Consumer Reports “*Commensense 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_throwers.html

2. Safety Shorts – Snow Shoveling/Snow Blower Tips

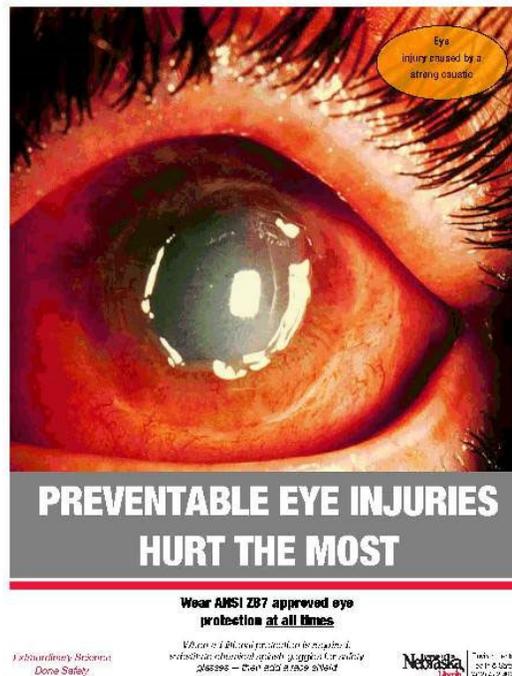
This series features links to short safety resource(s) each month. Provided this month are resources related to snow shoveling safety.

- **Snow Shoveling Safety** (Cleveland Clinic, 2:06 minutes)
<https://www.youtube.com/watch?v=-IMXSElabMM>
- **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_lmeY

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. Reminder to Prevent Eye Injury

January is the American Academy of Ophthalmology “Eye Injury Prevention Month.” Here is a poster to help workers remember to wear the eye protection designated for the task at hand because preventable eye injuries hurt the most.



For a FREE poster(s) contact ehs@unl.edu or 402.472.4925 with your name, campus mailing address including Zip+4, and quantity desired.

Resources

- Safety Posters <https://ehs.unl.edu/safety-posters>

4. New Heads Up! Graphics

The Chancellor's University Safety Committee sponsors a Heads Up! campaign to encourage the campus community to safely walk/bike/drive to avoid injury.



Graphics for the Heads Up! campaign, commissioned through University Communications by the Chancellor's University Safety Committee, are published to help the campus community promote safe walking/biking/driving to avoid injury. Please share broadly with your friends, colleagues, safety committee/team, etc. Graphics are provided in PDF format so you can print to

share/display. If you do not have the capability to print in color, contact EHS (ehs@unl.edu or 402.472.4925).

Do you have Digital Signage? All graphics to promote safe driving/walking/biking and use of other wheeled devices such as scooters and skateboards at UNL are available through the UNL (Digital) Content Library. Alternatively, we would be happy to provide an electronic file suitable for digital display upon request at ehs@unl.edu or 402.472.4925.

5. Situational Preparedness: Driving in the Dark

One driving situation that we don't always think of as being hazardous is driving in the dark. When you drive at night you experience situational night blindness. This occurs when you are temporarily blinded by the headlights of an oncoming car or move from driving on a very brightly lit road to driving in a low light/unlit area. Your pupils adjust to differing levels of light and during the transition you may be temporarily blinded. Here are tips to help you navigate nighttime driving:

- Drive within the visual range illuminated by your headlights, not by what you think you see beyond them. At night, headlights limit our view to only 250 to 350 feet of the road ahead.
- Adjust your rearview mirror to the nighttime setting to dim any headlight glare coming from behind.
- Focus your eyes on the right edge of the road to avoid being blinded.
- Keep your windshield and headlights clean inside and out.
- Shift your view between the road and your vehicle's rear and side mirrors.
- Turn your head from side to side to increase your peripheral vision.
- Use high beams when you can. Be sure to change your high beams back to low when approaching another vehicle either from behind or head-on.

Resources

- *Driving in the dark: Avoid night blindness.* (2021, November 28). Family Safety and Health (NSC) - DRIVING SAFETY. Retrieved December 13, 2021, from https://www.safetyandhealthmagazine.com/articles/21964-driving-in-the-dark-avoid-night-blindness?utm_source=dec2nd&utm_medium=email&utm_campaign=inThisIssue

6. Safety in the Office*

Office workers tend to think there are no hazards in their workplace. But there are! Here are some common hazards found in an office environment:

- Drawers present one of the worst hazards. File cabinet or desk drawers left open are easy to run into. Opening a full, heavier file cabinet drawer above empty/partially filled/lighter drawers can cause the cabinet to tip.

- If a step stool or ladder is not readily available for office use workers are tempted to use chairs to access items out of reach. If the area of step stool/ladder use is in front of a door, ensure the door cannot be opened in such a way as to knock over the step stool or ladder.
- Electric office items such as staplers, paper shredders, etc., must be grounded, double-insulated and have defect-free cords and plugs. Cords should not cross traffic paths.
- Items such as paper, paper clips, pens, etc., inadvertently dropped on floors, in particular vinyl floors, can lead to slips and trips. If you drop something pick it up. Be sure to pay attention to your travel path.
- Carrying items that block your view can result in collisions. When lifting/carrying items use a cart or get someone to help you if the load is large, even if lightweight, heavy, awkwardly shaped, or has movable items inside that can shift and cause instability.
- Lift with your legs not your back. Store heavy items lower to the floor and lighter items higher up on shelving to minimize the necessity to lift heavy items down from a height.
- Be aware of exit routes from your work area and other areas you frequent. Keep items out of exit paths.
- When moving around your work area and in particular when bending down and then standing up, pay attention to where your body is positioned in relation to fixed components to avoid collisions such as hitting your head as you stand up.
- Remember that safety is an attitude.

*This article is intended for informational purposes only and is not a recommendation of any company or commercially available products.

Resources

- *Office safety topics*. SafetyInfo. (n.d.). Retrieved January 6, 2022, from <https://www.safetyinfo.com/office-safety-index/>

7. NEW SOP: Anaerobic Chambers

The new **Anaerobic Chambers** Safe Operating Procedure reviews the following components relevant to the lifecycle of an anaerobic chamber:

- Hydrogen Gas Safety
- Setup/Commissioning
- Biosafety
- Decommissioning

Anaerobic chambers are designed to provide an oxygen-free environment to facilitate growth of anaerobic microbes. The anaerobic chamber is purged with an inert gas, generally nitrogen, to remove most oxygen. An airlock is used to

minimize introduction of air into the chamber while transferring samples into and out of the chamber. Depending on user needs, anaerobic chambers can be found in many configurations, sizes, and with various gases.

If you have any questions, contact EHS by email, ehs@unl.edu, or phone 422.472.5488, and ask to speak with a biosafety staff member.

Resources

- EHS SOP **Anaerobic Chambers** https://ehs.unl.edu/sop/s-bio-anaerobic_chambers.pdf

THINK SAFETY – DON'T LEARN BY ACCIDENT!

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