



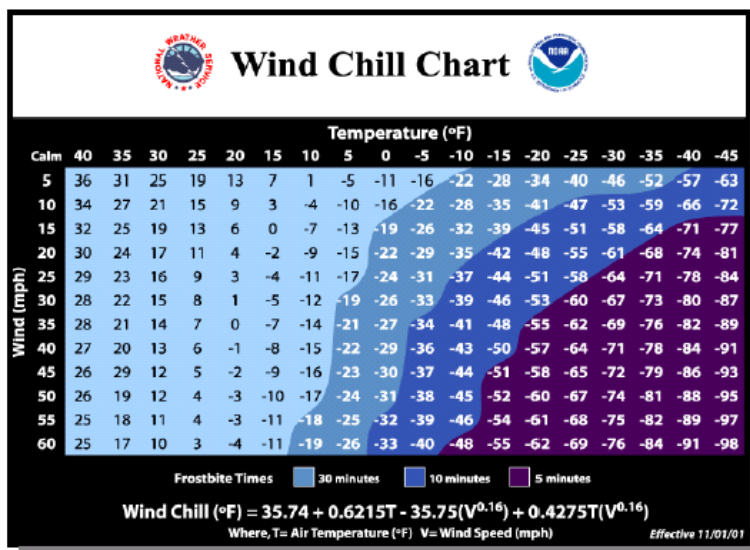
Environmental Health and Safety

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Winter Weather Safety

1. STAY WARM

- **WEAR THE RIGHT CLOTHING-** Clothing should protect you from cold, wind, and precipitation and should also provide ventilation—be "breathable".
- Protect head, feet, hands, and face. Keep dry.
- Cover your head. Up to 40 percent of body heat can be lost when the head is exposed.
- Footgear should be insulated to protect against cold and dampness.
- Dress in layers, wearing warm, waterproof/ water resistant clothing:
 - An outer layer to break the wind and allow some ventilation (like Gore-Tex® or nylon).
 - A middle layer of wool or synthetic fabric (Qualofil or Pile) to absorb sweat and retain insulation in a damp environment.
 - An inner layer of synthetic weave such as Supplex and Coolmax to allow ventilation.
- Seek immediate medical attention for frost bite or hypothermia.



2. AVOID SLIPS and FALLS

- Walking on snow or ice is especially treacherous and wearing proper footwear is essential.
- Wear a pair of well insulated boots with good rubber treads for walking during or after a winter storm.
- Wear ice cleats on icy sidewalks or streets.
- When walking on an icy or snow-covered walkway, take short steps and walk at a slower pace so you can react quickly to a change in traction.
- When you must walk in the street, walk against the traffic and as close to the curb as you can.
- Be on the lookout for vehicles which may have lost traction and are slipping towards you. Be aware that approaching vehicles may not be able to stop at crosswalks or traffic signals.
- Walk carefully inside buildings when you have wet boots. Brush snow off wet boots. Walk carefully on wet floors.
- At night, wear bright clothing or reflective gear, as dark clothing will make it difficult for motorists to see you. During the daytime, wear sunglasses to help you see better and avoid hazards.



3. USE CARE WHEN SHOVELING SNOW

- **Shovel fresh snow.** Freshly fallen, powdery snow is easier to shovel than the wet, packed-down variety.
- **Push the snow as you shovel.** It's easier on your back than lifting the snow out of the way.
- **Don't pick up too much at once.** Use a light shovel (e.g. aluminum), a small shovel, or partially fill a large one.
- **Lift with your legs bent, not your back.** Keep your back straight. Your shoulders, torso and thighs can do the work for you.
- **Take it slow!** Shoveling (like lifting weights) can raise your heart rate and blood pressure dramatically; so pace yourself. Be sure to stretch out and warm up before shoveling.
- **Do not work to the point of exhaustion.** If you run out of breath, take a break. If you feel tightness in your chest, stop immediately. Individuals over the age of 40, or those who are relatively inactive, should be especially careful. If you have a history of heart trouble, do not shovel without a doctor's permission. Avoid shoveling after eating. Do not smoke while shoveling.
- **Dress warmly.** Remember that extremities, such as the nose, ears, hands and feet, need extra attention during winter's cold. Wear a turtleneck sweater, cap, scarf, face protection, mittens, wool socks and waterproof boots.



4. OPERATE SNOW BLOWERS SAFELY

Snow blowers range from self-propelled models to units mounted on tractors.

- **Inexperience causes accidents.** Review the operator's manual before use. The manual can help you understand how the machine works and how to operate it safely.
- **Coming in contact with the turning blades** inside the discharge chute is the most common cause of snow blower injuries.
- **Accidents occur most often when the discharge chute clogs with wet, heavy snow.** You can't see the whirling blades down in the chute because snow covers the blades. If you use your hand or a stick to remove the clog, the blades could strike the stick or your hand. In either case, injury can occur.
- **Stop the engine** before cleaning foreign objects or snow from the equipment. **Do not insert your hand to clear it while the engine is running;** turn it off and then clear it using a broom handle, stick, etc. Never leave the snow blower running unattended. **Never put your hand in the discharge chute.**
- **Shut off equipment before making repairs or mechanical adjustments.** Always shut off the engine and remove the spark plug wire to prevent injuries.
- **Wear hearing protection when using snow blowers.** Noise reducing ear plugs/muffs protect hearing from snow blower noise.
- **Clear the area of any debris before you begin snow removal.** Some machines can send snow flying 30 feet and small, solid objects, such as stones or ice, up to 75 feet. Direct snow away from people.
- **Do not exceed the snow blower's capacity**
- **Clear snow up and down the face of slopes, not across the face.**
- **Handle gasoline with care.** Keep in mind these basic tips for handling flammable materials:
 - Use an approved fuel container for storage.
 - Don't remove the fuel cap or add gasoline to a running or hot engine.
 - Only fill the fuel tank outdoors.
 - Wipe up any spilled gasoline.
 - Keep both the snow blower and fuel away from open flames and sparks.
- **Clean off excess slush and lubricate the drive train prior to storage.**



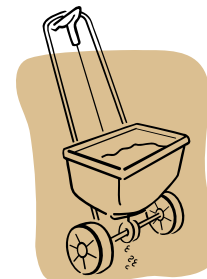
5. PLOW SAFELY

- **Wintertime driving poses many significant hazards.**
- **Keep truck or equipment in good condition.** Check fluid levels and top off before driving in hazardous conditions. Be sure the windshield wiper fluid, power steering and brake fluid, antifreeze, and engine oil are at the normal levels, and the engine has the proper weight of oil for winter driving.
- **Keep a full gas tank.**
- **Clear snow from headlights and tail lights.**
- **Carry emergency equipment** such as radio or cell phone with fully charged batteries, flashlight, ice scraper, tire chains, jumper cables, flares, first aid kit, tools, windshield fluid, small shovel, sleeping bag, extra gloves and hats, drinking water, and food.
- Be safe when applying salt/antiskid
- **Use extra caution and slow down when driving/plowing near pedestrians**
- **Maintain good steering capability.**
- **Have several drop points for the snow.**
- **Take small bites of snow that will flow across the blade surface.**
- **Stay clear of obstacles** like curbs, stumps, posts, bridges and rocks.



6. BE SAFE WHEN APPLYING SALT/ANTISKID- When spreading salt/antiskid:

- Salt can be spread using a vehicle mounted spreader or a walk behind spreader.
- Perform general preventive maintenance on the spreader before using. Don't operate the salt spreader attachment without proper training.
- **Avoid lifting injuries-** Use caution when loading salt to spreaders. Get help lifting bags if they weight more than 50 pounds. Use proper lifting techniques. If using bags of salt, lift with knees (not back). Don't lift bags above chest.
- **Vehicle safety-** Use appropriate warning lights on vehicles when salting roadways and beware of other vehicles and pedestrians.
- **Walk behind spreaders-** Walk carefully when spreading salt on slippery walks.
- Don't use hands to unclog the hopper or the spreader plate on vehicle mounted spreaders.
- **Wear appropriate clothing-** winter coveralls, boots, gloves, etc.
- **Use salt wisely-** Try to minimize spreading salt beyond paved surfaces to minimize plant damage.



Click on the "Winter Weather Safety" link on the following EHS Web Page for a Power Point with more information:
<http://www.ehs.psu.edu/occhealth/safety.cfm>