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Winter Safety

Cornell Cooperative Extension of Warren County
and
Warren County Disaster Preparedness Office

Topics Include:

- Winter Weather: Before a Storm
- Winter Storm Preparedness and Response
- Protecting Plumbing During a Winter Storm
- Ice Dam Prevention on Roofs
- Staying Warm in an Unheated House
- Carbon Monoxide
- Seniors and People with Disabilities
- Helping Kids Cope During a Storm
- Winter Sports Safety
- Animal Safety in Winter
- Winter Weather Terms

Building Strong and Vibrant New York Communities

Winter Weather: Before a Storm

Prepare for Winter's Arrival

- Make sure your household disaster plan is ready and all members of your household are familiar with how to contact one another in an emergency.
  (see page 4)
- Winterize your Go Bag by adding warm, dry outerwear and waterproof footwear.
  (see page 5)
- Your Emergency Supply Kit should be fully-stocked to allow you to sustain yourself for up to three days without power, or in the event you are unable to travel far from home. You may wish to include additional items such as extra blankets, additional warm clothing and a battery-operated NOAA Weather Radio to monitor weather conditions during a storm.
  (see page 4)

Winterize Your Home

- Install storm shutters, doors and windows, clean out gutters, repair any roof leaks, and have a contractor check the stability of your roof in the event of a large accumulation of snow.
- Insulate walls and attic. Caulk and weather-strip doors and windows. Install storm windows, or cover windows with plastic from the inside.
- Have safe emergency heating equipment available. For residences with functioning fireplaces, keep an ample supply of wood. Keep a fire extinguisher on hand.
- Install and check batteries in smoke and carbon monoxide detectors.
- Make sure you have sufficient heating fuel; you may have difficulty obtaining fuel in the immediate aftermath of a bad storm.
- Service snow removal equipment, and have rock salt on hand to melt ice on walkways. Kitty litter can be used to generate temporary traction.

Winterize Your Car

Before winter sets in, have a mechanic check the following items on your vehicle:

and drifting snow and/or dangerous wind chills.

Heavy Snow Warning - Issued when 7 inches or more of snow is expected in 12 hours or less, or 9 inches or more is expected in 24 hours or less. Heavy Snow Warnings are issued when there is a high degree of confidence that the entire event will be snow.

Ice Storm Warning - Issued for a ½ inch or more of ice accumulation which causes damage to power lines and trees. Ice Storm Warnings are issued when there is a high degree of confidence that the entire event is expected to be ice.

Blizzard Warning - Issued when blizzard conditions are imminent or expected in the next 12 to 24 hours. Blizzard conditions include sustained or frequent gusts =/> 35 mph AND considerable falling, blowing and drifting of snow reducing visibilities frequently 1/4 mile.

Lake Effect Snow Warning - Issued for 7 inches or more of lake effect snow.

Wind Chill Warning - Issued when the wind chill is expected to be -25F or less. Frostbite can occur in less than 10 minutes.

Advisories

Winter Weather Advisory - Issued for a hazardous combination of snow, and ice of which neither meets or exceeds warning criteria. Issued for winter weather that will cause significant inconveniences or could be life-threatening if the proper precautions are not taken.

Snow Advisory - Issued when an average of 4 to 6 inches of snow is expected in 12 hours or less. Snow advisories are issued when there is a high degree of confidence that the entire event will be snow.

Freezing Rain Advisory - Any accumulation of freezing rain that can make roads slippery. Freezing rain advisories will only be issued when there is a high degree of confidence that the entire event will be freezing rain only.

Snow and Blowing Snow Advisory - Sustained wind or frequent gusts of 25 to 34 mph accompanied by falling and blowing snow, occasionally reducing visibility to a 1/4 mile or less for three hours or more.

Blowing Snow Advisory - Widespread or localized blowing snow reducing visibilities to a 1/4 or less with winds less than 35 mph.

Lake Effect Snow Advisory - Issued for an average of 4 to 6 inches of lake effect snow.

Wind Chill Advisory - Issued for wind chills of -15F to -24F. Frostbite can occur in less than 30 minutes.

Source: New York State Emergency Management

degree drop in temperature below 32 degrees F. For example, when the temperature drops from 32 degrees F. to 0 degrees, provide 32 percent more feed (break this into three or four feedings a day). Usually, animals instinctively eat more feed if a storm is approaching.

Remember that mechanized feeders may be inoperable during power failures. Unless you have a source of emergency power, you may need extra labor to feed, water and care for animals by hand.

PROVIDE WATER

Dehydration is often a greater hazard during winter storms than cold or suffocation. Cattle cannot lick enough snow to satisfy their water requirements. They also will need more water if they are eating a higher-fiber diet. Use heaters in water tanks to provide livestock with enough water. Or, only pump out as much water as needed twice a day, to avoid problems with freezing water. If pipes freeze or power is out, you may need to haul water to animals.

WATCH YOUR LIVESTOCK

Watch your livestock carefully during winter storms and periods of severe cold. Keep them moving. If you see them shivering, not moving or acting abnormally, call your veterinarian. In particular, watch younger cattle for signs of trouble.

Source: University of Wisconsin—Extension

WINTER WEATHER TERMS

Watches

Winter Storm Watch - Issued for the possibility of severe life-threatening winter weather conditions including: heavy snow, heavy ice and/or near blizzard conditions. Forecasters are typically 50 percent confident that severe winter weather will materialize when a watch is issued.

Blizzard Watch - Issued for the possibility of blizzard conditions. Forecasters are typically 50 percent confident that blizzard conditions will materialize when a blizzard watch is issued.

Lake Effect Snow Watch - Issued for the potential for heavy lake effect snow.

Wind Chill Watch - Issued for the potential of wind chills of -25F or less, which can cause rapid frostbite and increase the risk of hypothermia.

Warnings

Winter Storm Warning - Issued for a combination of heavy snow and/or ice, of which, at least one exceeds or meets warning criteria. Winter weather is expected to cause life-threatening public impact for a combination of winter hazards including heavy snow, ice, near blizzard conditions, blowing

- Battery
- Antifreeze
- Windshield wipers and washer fluid
- Ignition system
- Thermostat
- Lights (headlamps and hazard lights)
- Exhaust system, heater, brakes, defroster
- Oil level (if necessary, replace oil with a winter oil or SAE 10w/30 variety)

Install good winter tires that have adequate tread.

Regardless of the season, it's a good idea to prepare for an in-car emergency. Assemble an Emergency Supply Kit for your vehicle, and consider adding the following items for winter conditions:

- Blankets, sleeping bags, extra newspapers for insulation
- Plastic bags (for sanitation)
- Extra mittens, socks, scarves and hat, raingear and extra clothes
- Sack of sand or kitty litter for gaining traction under wheels, small shovel
- Set of tire chains or traction mats
- Working jack and lug wrench, spare tire
- Windshield scraper, broom
- Small tools (pliers, wrench, screwdriver)
- Booster cables
- Brightly colored cloth to use as a flag, flares or reflective triangles

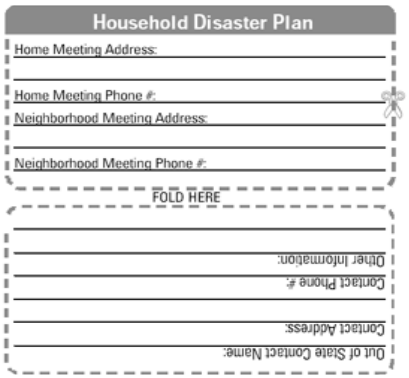
What To Do Before A Storm Strikes

- Listen to NOAA Weather Radio and your local radio and TV stations for updated storm information. Know what winter storm watches and warnings mean.
- Check on relatives, friends, and neighbors who may need assistance preparing for a storm.
- Be alert to changing weather conditions and avoid unnecessary travel.
- Let faucets drip a little to help prevent freezing.
- Test smoke and carbon monoxide detectors.

(Continued on page 4)

Emergency Reference Card

When developing your family's disaster plan, you should assemble and make individual copies of vital contact information for each family member.



Remember these important tips when designating emergency contacts:

- § Make sure everyone knows the address and phone number of your chosen meeting place.
- § Designate an out-of-state friend or relative that household members can call if separated during a disaster. If New York City phone circuits are busy, this out-of-state contact can be an important way of communicating between household members. When local phone circuits are busy, long-distance calls may be easier to make.
- § Ensure that household members have a copy of your Household Disaster Plan to keep in their wallets and backpacks.

What to Have in Your Home: Emergency Supply Kit

Keep enough supplies in your home to survive on your own for at least three days. If possible, keep these materials in an easily accessible, separate container or special cupboard. You should indicate to your household members that these supplies are for emergencies only. Also see shelter in place.

- § One gallon of drinking water per person per day
- § Non-perishable, ready-to-eat canned foods and manual can opener
- § First aid kit
- § Flashlight
- § Battery-operated AM/FM radio and extra batteries (You can also buy wind-up radios that do not require batteries.)
- § Whistle
- § Iodine tablets or one quart of unscented bleach (for disinfecting water ONLY if directed to do so by health officials) and eyedropper (for adding bleach to water)
- § Personal hygiene items: soap, feminine hygiene products, toothbrush and toothpaste, etc.
- § Phone that does not rely on electricity
- § Child care supplies or other special care items

Animal Safety in Winter

For animals normally kept outside during the winter, safety can be a concern during extended periods of severe cold, snow or wet conditions. Wind coupled with severe or prolonged cold weather causes additional stress on livestock, increasing their needs for shelter, food and water.

PROVIDING ADEQUATE SHELTER, FEED AND WATER

PROVIDE SHELTER

Severe cold alone usually will not affect the performance of large animals on full feed. Wind, however, can be a serious stress factor. A strong wind has about the same effect on animals as exposure to a sudden drop in temperature. In general, a 20 mph wind is about equivalent to a 30 degree F. drop in temperature. Under extreme conditions, simple wind and snow protection devices will not be 100 percent effective.

Move stock, especially the young, into sheltered areas during severe periods of cold. Adequate shelter is important because animals' extremities are subject to freezing during sub-zero weather. Extremities that become wet or are normally wet are particularly subject to frostbite and freezing. The loss of ears or tails could be of little economic significance, but damage to male reproductive organs could impair the animals' fertility or ability to breed. Frozen and chapped teats will impact milk production.

Shallow open-front sheds provide excellent shelters for livestock. Such shelters should have slots along the eaves on the back side. The openings provide ventilation and prevent snow from swirling into the front of the shed. Use a 1-inch slot per 10 feet of building width. Continuous ridge openings of 2 inches also are recommended for each 10 feet of building width.

Solid-sided feed wagons work well for temporary wind protection. Attach plywood or locate bales of straw or feed at the bottom of the wagon to block wind from moving under the wagon.

Windbreaks, properly oriented and laid out, or timber-covered lowlands make good protection for range cattle. Unlike shed-type shelters, windbreaks eliminate concerns about overcrowding or proper ventilation.

Never close shelters tightly, since stock could suffocate from lack of oxygen. Additional bedding is helpful to keep animals insulated from the ground and to keep them dry during cold periods.

PROVIDE EXTRA FEED

During severe or prolonged cold weather, animals need extra feed to provide body heat and to maintain production weight gains. Provide them with additional, higher fiber feeds such as hay or hay mixed with oat straw. A good formula during cold weather is to increase feed 1 percent for every

(Continued on page 22)

1. If possible, skate at areas that have been approved and posted for ice-skating.
2. Never skate alone. Always have at least two people present.
3. Children should never be allowed to skate on a pond unsupervised.
4. Remember ice thickness is never consistent on lakes and ponds. Water currents, particularly around narrow spots, bridges, inlets and outlets are always suspect for thin ice.
5. Stay away from cracks, seams, pressure ridges, slushy areas and darker areas that signify thinner ice.
6. Never skate after dark.

Hypothermia

Prolonged exposure to cold temperatures can cause hypothermia, especially in children and the elderly.

Watch for these symptoms:

1. Inability to concentrate
2. Poor coordination
3. Slurred speech
4. Drowsiness
5. Exhaustion
6. Uncontrollable shivering, followed by a sudden lack of shivering
7. If the person's body temperature drops below 95 degrees Fahrenheit, get emergency medical assistance immediately!

Remove wet clothing, wrap the victim in warm blankets and give warm, non-alcoholic, non-caffeinated liquids until help arrives.

Frostbite

People working or playing outdoors during the winter can develop frostbite and not even know it.

There is no pain associated with the early stages of frostbite, so learn to watch for these danger signs:

1. First, the skin may feel numb and become flushed. Then it turns white or grayish-yellow. Frostbitten skin feels cold to the touch.
2. If frostbite is suspected, move the victim to a warm area. Cover the affected area with something warm and dry. Never rub it!
3. Then get to a doctor or hospital as quickly as possible.

 Source: New York State Emergency Management

What to Have in Your Hand: Go Bag

Every household should consider assembling a Go Bag – a collection of items you may need in the event of an evacuation. Each household member's Go Bag should be packed in a sturdy, easy-to-carry container such as a backpack or suitcase on wheels. A Go Bag should be easily accessible if you have to leave your home in a hurry. Make sure it is ready to go at all times of the year. Also see evacuation.

- § Copies of your important documents in a waterproof and portable container (insurance cards, photo IDs, proof of address, etc.)
- § Extra set of car and house keys
- § Credit and ATM cards and cash, especially in small denominations. We recommend you keep at least $50-$100 on hand.
- § Bottled water and non-perishable food such as energy or granola bars
- § Flashlight, battery-operated AM/FM radio and extra batteries. You can also buy wind-up radios that do not require batteries at retail stores.
- § Medication and other essential personal items. Be sure to refill medications before they expire. Keep a list of the medications each member of your household takes, why they take them, and their dosages.
- § First aid kit
- § Sturdy, comfortable shoes, lightweight raingear, and a mylar blanket
- § Contact and meeting place information for your household, and a small regional map
- § Child care supplies or other special care items

Source: New York State Emergency Management

Winter Storm Preparedness and Response

SAFETY AT HOME AND WHILE TRAVELING

BE AWARE OF THE FORECAST

- *Winter weather advisory.* Formerly called a "travelers' advisory," this alert may be issued by the National Weather Service for a variety of severe conditions. Weather advisories may be announced for snow, blowing and drifting snow, freezing drizzle, freezing rain (when less than ice storm conditions are expected), or a combination of weather events.
- *Winter storm watch.* Severe winter weather conditions may affect your area (freezing rain, sleet or heavy snow may occur either separately or in combination).
- *Winter storm warning.* Severe winter weather conditions are imminent.
- *Freezing rain or freezing drizzle.* Rain or drizzle is likely to freeze upon impact, resulting in a coating of ice glaze on roads and all other exposed objects.
- *Sleet.* Small particles of ice, usually mixed with rain. If enough sleet accumulates on the ground, it makes travel hazardous.
- *Blizzard warning.* Sustained wind speeds of at least 35 miles per hour are accompanied by considerable falling and/or blowing snow. This is the most perilous winter storm, with visibility dangerously restricted.
- *Wind chill.* A strong wind combined with a temperature slightly below freezing can have the same chilling effect as a temperature nearly 50 degrees lower in a calm atmosphere. The combined cooling power of the wind and temperature on exposed flesh is called the wind-chill factor.

BE PREPARED AT HOME

- *Keep a battery-powered radio and flashlights in working order; stock extra batteries.*
- *Store food that can be prepared without an electric or gas stove.*
- *Stock emergency water and cooking supplies.*
- *Have candles and matches available in case of a power outage.*
- *Have sufficient heating fuel; regular fuel sources may be cut off.*
- *Have some kind of emergency heating equipment and fuel (a kerosene heater, a gas fireplace or wood-burning stove or fireplace) so you can keep at least one room of your house warm if power is cut off.* (See page __ for "Staying Warm in an Unheated House.")

RIDING OUT A STORM AT HOME

If you are isolated at home, listen to the radio or television for updates on weather conditions. Conserve fuel by keeping your house cooler than usual and by temporarily "closing off" heat to some rooms. When emergency heating methods must be used, maintain adequate ventilation to avoid build-up of toxic fumes. (See page __ for, "Staying Warm in an Unheated House.")

Dress accordingly. Layer your clothing; many layers of thin clothing are

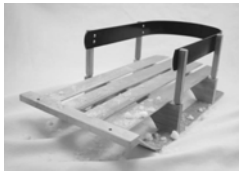
Winter Sports Safety

New York State offers an abundance of sports activities during the winter season. From skiing and snowboarding to ice climbing, hiking and other outdoor pursuits, parents and children should follow the safety rules of the sport.

1. Most importantly, use the proper equipment and check to make sure everything is in proper working condition. A well-fitting ANSI/SNELL certified helmet will assure a safer, more enjoyable wintertime experience whether you are skiing, sledding, snowboarding or skating.
2. Dress in multiple, lightweight layers to stay warm and dry while enjoying the outdoors. Check the weather forecast but be prepared for anything.
3. If you are heading into the backcountry, never travel alone. Let someone know your route and estimated time of return.
4. Skiers and snowboarders should go on runs that are appropriate for their ability. Stay in control at all times and be able to stop or avoid other people or objects. Obey all posted signs and warnings.
5. No matter what sport you participate in, always focus 100 percent of your attention on the activity and the terrain you are on. Moreover, rest when you are tired.

Safe Sledding

Winter is a fun time for children, but it also may be dangerous. Parents should be aware of some simple safety tips for their children when they go sledding or tobogganing:



1. Children should never use streets or roads for sledding unless they are blocked off from traffic.
2. Children should sled only during daytime hours.
3. Do not sled on icy hills. Sledding hills should be only snow covered.
4. Avoid sledding over snow bumps or anything that may cause the sled to become airborne.
5. Never sled alone. An adult should always accompany small children.
6. Children should stay out of the paths of other sledders. In addition, if the slopes become busy, they should move off them quickly.

Parents, if you are sledding with your children, follow these rules yourselves.

Safe Skating

Winter is a fun time for children, but it also may be dangerous. Parents should be aware of some simple safety tips for their children when they go ice-skating:

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of their parents. Your calmness or stress can be reflected in how they behave.

- **Involve children in safe, routine activities** such as finding extra blankets for beds or preparing snacks. This makes them feel a part of the family.
- **Be prepared.** Children may start acting "silly" and misbehaving. This is normal if a child is scared or doesn't understand the situation. An extra amount of understanding and patience is usually necessary.
- **Discuss your feelings** with your child and ask him or her to share feelings with you.
- **Prepare them by talking about it.** Visiting a shelter or staying with unfamiliar people/ places can be scary to children. Let them know how long the stay will be and take along familiar items, such as a blanket or toy.

Here are some tips for handling cabin fever with small children:

- **Be creative**. Play dress up.
- **Read with your child.** Share stories from your childhood. Make up stories about winter weather, etc.
- **Have a scavenger hunt in your home.** Items may include a pair of socks, a book about animals, a teddy bear, a red truck.
- **Do some mini-school lessons** such as a spelling bee, math problems.

- **Look through (and organize, if needed) your photo albums.** This activity should generate some childhood stories.
- **Do puzzles together.** This is a great way to have fun, be together and make the time go faster.
- **Make a book about the storm.** Let kids draw pictures and write the text. If they aren't old enough to write, write the words for them.) Stitch the book together with yarn or staples.
- **Provide play that relieves tension.** Work with playdough or paint. Use water play. If children need to hit or kick, give them something safe, like a pillow, ball or balloon. Give them a safe, open place to play.
- **Observe your child at play.** Listen. Often, children express fear or anger while playing with dolls, trucks or friends.

warmer than single layers of thick clothing. If you need to go outdoors or the heat is off indoors, wear mittens; they are warmer than gloves. Wear a hat; most body heat is lost through the top of the head. Cover your mouth with scarves to protect your lungs from directly inhaling extremely cold air.

If shoveling snow isn't critical, don't do it. If you must shovel snow, take your time and lift small amounts. Over-exertion can bring on a heart attack — a major cause of death during and after winter storms.

IF STRANDED ON THE ROAD - BE PREPARED IN YOUR CAR

Keep your car "winterized" with antifreeze. Carry a winter car kit that includes a windshield scraper, flashlight, candle and matches, tow chain or rope, shovel, tire chains, blanket, extra mittens, bag of sand or salt, a fluorescent distress flag and an emergency flare.

If your vehicle becomes stalled or stopped in a winter storm, follow these tips until help arrives.

- Keep calm and stay in your vehicle. Do not attempt to walk out of a blizzard. You are much more likely to be found by staying in your vehicle.
- Keep fresh air in your vehicle — especially if you are using a candle, solid fuel or other type of heating device — to prevent carbon monoxide build-up and oxygen starvation.
- Run motor and heater sparingly and only with the down-wind window open for ventilation. Make sure snow has not blocked the exhaust pipe.
- Turn on dome light at night. This helps make the vehicle visible for work crews.
- Keep watch. Do not permit all occupants to sleep at once.
- Exercise. Clapping hands and moving arms and legs vigorously will help keep you awake and improve circulation.

IF TRAVELING IN BAD WEATHER

- *Use public transportation, if possible.* Try not to travel alone during a storm.
- *Make sure your vehicle is in good operating condition, winterized, properly serviced and equipped with snow or all weather tires.* Be sure your headlights, taillights and windows are clean so you can see and be seen.
- *Listen to your radio for weather information.*
- *Always fill your gas tank before entering open country, even for short distances.* You are less likely to get stranded with a full tank. If you do get stranded, you will have enough gas to run the motor and heat the vehicle.
- *Let someone know your departure time, expected arrival time and route.*
- *Seek shelter immediately if the storm seems severe.* Don't be foolhardy.
- *Drive carefully and defensively.* Don't try to save time by traveling faster than road and weather conditions permit.
- *Never carry spare fuel inside the vehicle or the trunk.* Gasoline fumes

Protecting Plumbing During a Winter Storm

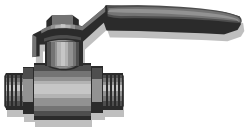
CARE OF UTILITIES AND APPLIANCES WHEN THE POWER IS OUT

If the heat will be off in your home for several days during a winter storm, you should protect exposed plumbing, sewage systems and appliances from freezing and subsequent damage. Frozen pipes could become a problem once the temperature inside the home falls below 40 degrees F.

If some pipes have frozen, despite the fact that power has returned or exists, there are some simple measures to take. But whenever possible, get an expert for plumbing work or repairs.

REDUCE THE CHANCE OF FROZEN PIPES

Follow these steps to reduce the chance of pipes freezing during a power failure:



- Shut off the water at the main valve, or turn off the well pump if it is in the house.
- Turn the water heater off. An explosion could result if the heater is left on without water in the system. You will find either an electrical switch or gas valve for shutting off the appliance.
- Open all the faucets on the lower level, then the upper level. You may want to collect the water for household use.
- Insulate undrainable pipes around their main valves. Use newspaper, blankets or housing insulation.

Unlike summer homes and cottages, modern housing is not usually designed for easy winterization. For this reason, you should contact a plumber or other expert if the house will be without heat for an extended period of time. Critical measures include: draining of toilets, water softening units, drain traps, sump pumps, heaters, humidifiers, dishwashers and other appliances that use water.

WHEN PIPES FREEZE

Under normal circumstances, most of us never have to worry about a frozen water pipe. Our plumbing pipes are on interior walls and are insulated well enough that water does not freeze. But frozen pipes may become a concern if the heat is off or if water pipes run through unheated crawl spaces, floors over garages or in outside walls.

Helping Kids Cope During a Storm

A natural disaster that results in loosing power, telephone or no school for days can add up to a frightening experience for everyone, especially children. A child's ability to cope is different than that of an adult. Here are some typical reactions of children during a storm or disaster. Children may:

- **Be upset** at the loss of a favorite blanket, teddy bear, etc.
- **Be angry**. They may hit, throw or kick to show their anger.
- **Become more active and restless.**
- **Be afraid of the disaster recurring.** They may ask many times, "Will it come again?"
- **Be afraid to be left alone** or afraid to sleep alone. Children may want to sleep with a parent or another person. They may have nightmares.
- **Behave as they did when younger**. They may start sucking their thumbs, wetting the bed, asking for a bottle or want to be held.
- **Have symptoms of illness,** such as nausea, vomiting, headaches, not wanting to eat, running a fever.
- **Be quiet and withdrawn,** not wanting to talk about the experience.
- **Become upset easily**—cry and whine frequently.
- **Feel guilty** that they caused the disaster because of some previous behavior.
- **Feel neglected by parents** who are busy trying to clean up and rebuild their lives/homes.
- **Refuse to go to school or to child care.** The child may not want to be out of the parent's sight.
- **Become afraid of loud noises, rain, storms.**
- **Not show any outward sign of being upset.** Some children may never show distress because they do not feel upset. Other children may not give evidence of being upset until several weeks or months later.

Here are some ways you can help children cope:

- **Tell children simply and matter-of-factly about storm-related problems and how they are being handled**. Children are mirrors

(Continued on page 18)

- Supplies for pets and service animals (food, extra water, bowl, leash, plastic bags)
- Back-up medical equipment

Be Prepared to Evacuate

Evacuation should be addressed as part of your emergency planning efforts, both for your home and all places you spend time. Seniors and people with disabilities should take the following considerations into account when making evacuation plans:

- Determine if you will need assistance in an emergency evacuation, including how you will get to a safe place or shelter.
- Determine all usable exits from each room and your building. Make a habit of identifying exits whenever you are in a new location (i.e. shopping mall, restaurant, movie theater, etc.).

- Know evacuation plans for all places you spend time. Often buildings have floor marshals who are responsible for evacuation plans. Be sure to let floor marshals know what special assistance you or those you care for may need in an emergency.
- Practice dealing with different circumstances and unforeseen situations, such as blocked paths or exits.
- Teach members of your support network how to operate your equipment in an emergency (e.g. how to disengage gears of a power wheelchair and how to best lift or transfer you).
- If you are deaf or hard of hearing, practice having members of your support network — both at home and at work — communicate important information to you through pre-designated gestures, flashcards, or other means.
- If you are blind or have low vision, have members of your support network practice guiding and directing you.
- Include service animals in all drills so they become familiar with exit routes.

Shelter in Place

When evacuation to shelters is either inappropriate or impossible, you may be instructed to stay where you are.

 Source: New York State Emergency Management

If pipes do freeze:

- Shut off the water supply and open faucets to the frozen pipes;
- Warm them with a heat lamp, blow dryer or portable heater;
- Do not use boiling water, propane torches or any open flame to thaw frozen pipes;
- Apply only moderate heat and expect to wait for several hours;
- Open sink cabinets to let in warm air.

If pipes have burst before you could take preventive action, immediately turn off their water supply. Try to locate the areas that need repair and call a plumber.

LONG-TERM SOLUTIONS

The long-term solution for frozen pipes is to provide adequate insulation and heat. Methods may include wrapping pipes with insulation material and installing weather stripping, insulation and heat to the room. A temporary or last resort solution is the use of electric heating tape, which can be wrapped around the pipes and energized when sub-zero weather is predicted. You can also leave faucets connected to exposed pipes trickling when low temperatures are forecasted. If the pipes are under an enclosed sink, open the door and use a fan to blow warm air from the room toward the pipes.

Source: University of Wisconsin—

Ice Dam Prevention on Roofs

Ice dams occur when a snow-covered roof over the attic is warmer than the eaves — the overhang of a roof. If the roof is warm, it will cause the snow to melt and run under snow along the roof. When the melted snow hits the cooler eaves, it freezes. As ice builds up on eaves, it eventually traps water behind it. The water backs up under shingles and finds its way through seams in the building paper and roof decking to enter the attic and living area. Wallpaper, plaster and paint surfaces may be damaged in the process. Fortunately, there are several ways to remedy the problem.

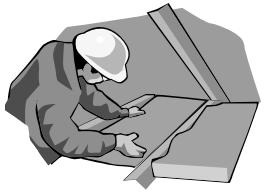
SIMPLE WAYS TO ALLEVIATE THE PROBLEM
WHEN SEEPAGE HAS ALREADY BEGUN

If you have an immediate problem with ice dams, you should remove the snow from the part of the roof directly above the ice dam. This limits the amount of water that can collect behind the dam.

- *Remove the snow using a roof rake, hoe or push broom.* Roof rakes have long handles that allow you to stay on the ground when clearing a single-story roof. You can purchase them at hardware stores.
- *Avoid using sharp instruments, such as axes, to break channels through the ice.* This is likely to cause roof and structure damage.

PREVENTION

A cooler attic area will help decrease problems with ice dams. Here are two ways to keep attics cool:



- *Increase insulation in the attic to at least 12 inches.* Also, close any thermal shortcuts —openings that allow air to move from the heated part of the house into the attic. Chases around chimneys, plumbing vents, junction boxes for ceiling light fixtures, attic hatches and ceiling fan mounts are common thermal shortcuts.
- *Create adequate attic ventilation to remove any heat that escapes into the attic.* One square foot of free ventilation opening is recommended for every 150 square feet of attic space. Ventilation should be divided between eaves and the house ridge to take advantage of the fact that warm air rises. When installing eave or soffit vents, be sure that the opening is not blocked by insulation. You can do that by installing a cardboard or plastic channel over the insulation lined up with each vent.

- Have a plan with your doctor that addresses emergency prescription refills, if possible.
- If you receive dialysis or other medical treatments, find out your provider's emergency plan, including where your back-up site is located.
- If you rely on medical equipment that requires electric power, contact your medical supply company for information regarding a back-up power source such as a battery. Follow the manufacturer's directions when installing the equipment and the battery back-up. If you use a portable generator for emergency power, follow manufacturer's directions for safe operation, and check with local fire and building officials for regulations governing generator and fuel use. Ask your utility company if the medical equipment qualifies you to be listed as a life-sustaining equipment customer.
- If you rely on oxygen, talk to your vendor about emergency replacements.

Planning for Outside the Home

Get involved in emergency planning for all places you spend time, such as school, work, or senior centers. If there is no plan, encourage managers or administrators to develop one. Make sure they are aware of any needs you or those you care for may have. Also make sure you are included in decisions regarding equipment and procedures that might affect you.

Assemble an Emergency Supply Kit

Keep enough supplies in your home to survive on your own for at least three days. You may also consider additional supplies and equipment when compiling your kit, based on your special needs. These items may include:

- Back-up medical equipment (oxygen, medication, scooter battery, hearing aids, mobility aids, glasses, etc.)
- Style and serial numbers of medical devices (such as pacemakers) and usage instructions
- Supplies for pets and service animals (food, extra water, bowl, leash, plastic bags)
- Contact information for your doctors and pharmacist

Put Together a Go Bag

Assemble a Go Bag – a collection of items you may need in the event of an evacuation. Consider additional items such as:

- Instructions for any device you may use
- Emergency health information card (in PDF)
- Medication and other essential personal items. Be sure to refill medications before they expire. Include a list of the medications you take, why you take them, and their dosages.
- Aerosol tire repair kits to repair flat wheelchair or scooter tires and/or tire inflator

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Seniors and People with Disabilities

Emergencies can present additional challenges for seniors and people with disabilities. Being prepared for any emergency takes planning. While the City responds to disasters, only you can take steps to identify the risks you may face and ensure your safety. Plan to be self-sufficient for several days without help or emergency services. When a disaster occurs, your personal needs, such as replacing medications and equipment, may not be met right away. Work out a plan that fits your needs and is simple to put into action. By planning ahead, you will feel more confident about protecting yourself following any emergency, whether it is a house fire, power outage, hurricane, or terrorist attack.

It's important to know how a disaster may affect you. Determine what resources and supplies you may need, and share this information with caregivers or emergency contacts. The steps outlined in this guide will help you better identify and assess your needs, and take control of your actions during disasters.

Develop a Plan

Develop a disaster plan for each place you spend time — home, work, school, and in the community. Consider the following recommendations to ensure your plan best meets your needs:

- Establish a personal support network with family, friends, neighbors, and coworkers, and determine how you will help each other in any emergency. Do not depend on one person only.
- Ask those who form your support network to:
    - Know how to contact you anytime critical information becomes available.
    - Check on you immediately after an emergency.
    - Keep a spare set of important keys.
    - Know where your Emergency Supply Kit is kept.
    - Have copies of important documents, such as information about medication and dosage, equipment, and other needs.
    - Learn about your personal needs and how to help you in an emergency.
- If you receive home-based care (e.g. homecare attendant, home health aide, visiting nurse service), include caregivers in developing your plan and familiarize yourself with your homecare agency's emergency plan.
- If you have a pet or service animal, also plan for his or her needs (i.e. temporary relocation, transportation, etc.).
- If you rely on home-delivered meals, always stock nonperishable food at home in case meal deliveries are suspended during an emergency.

Staying Warm in an Unheated House

During severe winter storms, your home heating system could be inoperative for as long as several days. To minimize discomfort and possible health problems during this time, conserve body heat by dressing warmly; find or improvise an alternative heat source, such as a fireplace or electric space heater; confine heating to a single room; and keep safety a foremost consideration. While chances of freezing to death in your home are small, there's a greater danger of death by fire, lack of oxygen or carbon monoxide poisoning.

COPING WITH A POWER OUTAGE IN WINTER

THINK "SAFETY FIRST"

Safety is of extreme importance in a heating emergency. Follow these precautions:

- Do not burn anything larger than candles inside your home without providing adequate ventilation to the outside.
- Any type of heater (except electric) should be vented. Connect the stove pipe to a chimney flue if at all possible. (Many older homes have capped pipe thimbles in rooms once heated by stoves.) Or hook up your stove to the flue entrance of the non-functioning furnace pipe. If no other alternative exists, consider extending a stove pipe through a window. Replace the window glass with a metal sheet and run the temporary stove pipe through the metal.
- If you use a catalytic or unvented heater, cross-ventilate by opening a window an inch on each side of the room. It is better to let in some cold air than to run the risk of carbon monoxide poisoning.
- Do not use a gas or electric oven or surface units for heating. A gas oven may go out or burn inefficiently, leading to carbon monoxide poisoning. An electric oven was not designed for space heating.
- Do not burn outdoor barbecue materials such as charcoal briquettes inside — even in a fireplace.
- Do not try to use bottled gas in natural gas appliances unless you have converted the appliances for such use. Also, flues and piping suitable for gas burning appliances may be unsafe for use with higher-temperature oil, coal or wood smoke.
- Have one person watch for fire whenever alternative heat sources are used. One person should also stay awake to watch for fire and to make sure ventilation is adequate. If the designated person feels drowsy or has a headache, it may be a sign of inadequate ventilation.
- Keep firefighting materials on hand. These may include: dry powder fire extinguishers, a tarp or heavy blanket, sand, salt, baking soda and water.

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CONSERVE BODY HEAT

Put on extra clothing. If cold is severe, your bed may be the warmest place. Use extra blankets and coverings to trap body heat; this is an especially good way to keep children warm. Farm families might consider taking refuge in the relative warmth of the livestock barn.

FIND OR IMPROVISE AN ALTERNATIVE HEAT SOURCE

You may have alternative heating resources around your home. Possibilities include:

- fireplace, space heater, catalytic camp stove
- wood, gas or oil heater
- gas-fired hot water heater

PROVIDE FUEL

Some common materials that could be used for fuel include:

- firewood, newspapers, magazines
- camp stove fuel, kerosene
- wood chips, straw, corncobs

You can burn coal in a fireplace or stove if you make a grate to hold it, allowing air to circulate underneath. "Hardware cloth" screening placed on a standard wood grate will keep coal from falling through.

Tightly rolled newspapers or magazines can be used as paper "logs." Stack them as you would stack firewood to allow for air circulation.

If the heating situation becomes critical, consider burning wood, including lumber or furniture.

SELECT A ROOM TO BE HEATED

To increase efficiency of available heat, close off all rooms except the one to be heated. When selecting a room, consider the following:

- If using a vented stove or space heater, select a room with a stove or chimney flue.
- Confine emergency heat to a small area.
- Try to select a room on the "warm" side of the house, away from prevailing winds. Avoid rooms with large windows or uninsulated walls. Interior bathrooms probably have the lowest air leakage and heat loss. Your basement may be a warm place in cold weather because the earth acts as insulation and minimizes heat loss.
- Isolate the room from the rest of the house by keeping doors closed, hanging bedding or heavy drapes over entryways, or by erecting temporary partitions of cardboard or plywood.
- Hang drapes, bedding or shower curtains over doors and windows, especially at night.

Carbon Monoxide

Dangerous levels of carbon monoxide – a colorless and odorless gas – can be produced from improperly vented furnaces, plugged or cracked chimneys, water heaters, fireplaces, stoves and tail pipes. Any vehicle or appliance that burns fuel may emit carbon monoxide.

Hundreds of people die from carbon monoxide poisoning every year, and thousands of others suffer dizziness, severe headache and nausea.

Symptoms of Carbon Monoxide Poisoning:

People with carbon monoxide poisoning often report feeling sick and having feelings of malaise which continue to worsen. ***The most common symptom of carbon monoxide poisoning is headache.*** However, symptoms may also include dizziness, chest pain, nausea and vomiting. In severe cases, people can become increasingly irritable, agitated and confused, eventually becoming lethargic and lapsing into unconsciousness. Everyone is at risk, however, people with low red blood cell counts, heart or respiratory ailments as well as infants are at higher risk.

IF YOU SUSPECT CARBON MONOXIDE POISONING:

- Leave your home.
- Call 911.
- Get any victims to fresh air immediately.
- Open windows.
- Call your local utility.

Tips for Preventing Carbon Monoxide Poisoning:

- Install a carbon monoxide detector in your home and check it regularly to make sure the battery is working.
- Make sure your heating system is kept clean and properly vented; have worn or defective parts replaced.
- Have your fireplace, chimney and flue cleaned every year to remove soot deposits, leaves, etc.

- Don't heat your home with a gas stove or oven.
- Do not use any gas-powered appliance, such as a generator, indoors.
- Never use a charcoal grill or a hibachi indoors.
- Automobile exhaust contains carbon monoxide. Open your garage door before starting your car and do not leave the motor running in an enclosed area. Clear exhaust pipes before starting a car or truck after it snows.