



## Winter Weather Threats

### Nor'Easter

Nor'easters have the potential to cause as much damage as hurricanes in New Jersey, with powerful winds, rain or snow and large waves.

They can pound and erode beaches with heavy surf, affect inland areas with flooding, or coat the land with thick layers of ice and snow.

Nor'easters result from the counterclockwise rotation of a low pressure system and the clockwise rotation of a high pressure system, combining to bring wind and moisture to New Jersey from the Northeast. The nor'easter's ferocity will depend on the strength of the two systems.

One reason nor'easters are so dangerous is that they tend to move much more slowly than hurricanes at our latitudes. That slow movement allows the storm's effects to accumulate in a given area. The worst natural disasters in New Jersey history, in terms of cost and widespread damage, have been from nor'easters that moved slowly and remained for several days.

A nor'easter's wind circulation can cause tidal waters in back bays to be held in place, and not allow the water to drain through inlets and into the ocean. The accumulation of more and more water in tidal areas can cause widespread flooding.

Nor'easters can occur all year long, but in New Jersey they are primarily a risk between **September and April**.

### Be prepared:

- **Stay tuned** to NOAA Weather Radio All Hazards, your local radio and TV stations or The Weather Channel for updates, watches, warnings or emergency instructions.
- If you live in a coastal area or an inland area with chronic flooding, [know your evacuation route](#).
  - In coastal areas, study the map of [New Jersey's Coastal Evacuation Routes](#).
  - In all areas, call your [Office of Emergency Management](#) for the details of your area's evacuation plans.
- Always be ready with your [Emergency Kit and Plan](#).

## Blizzard Or Other Heavy Snow Events

- A Blizzard includes winds of 35 mph or more and blowing snow that reduces visibility to less than 1/4 mile for three hours or more.
- Heavy snow can immobilize a region and strand commuters, close airports, stop the flow of supplies and disrupt emergency and medical services.
- Accumulations of snow can cause the collapse of roofs, trees and power lines. Homes and farms may be isolated for days, and unprotected crops may be lost.
- Stay tuned to NOAA Weather Radio All Hazards, your local radio and TV stations or The Weather Channel for updates, watches, warnings or emergency instructions.
- Avoid overexertion such as shoveling heavy snow, pushing a car or walking in deep snow. Cold weather puts an additional strain on the heart and can cause a heart attack. Sweating could lead to a chill and hypothermia.

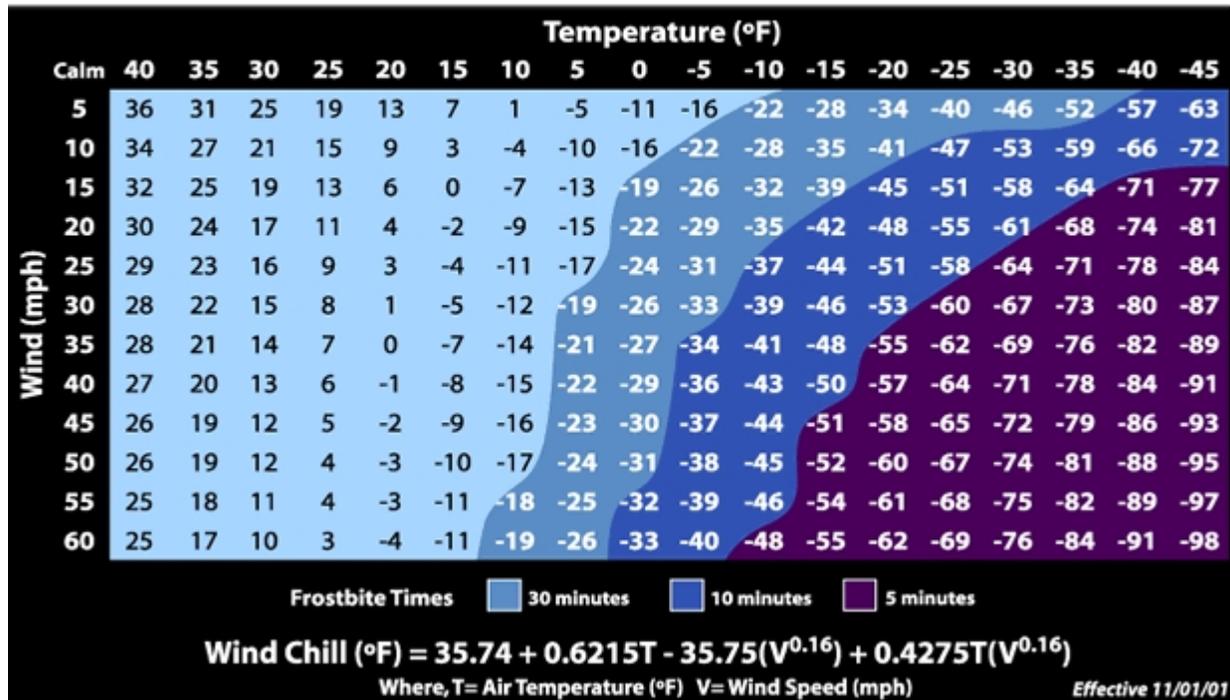
## Wind Chill, Frostbite And Hypothermia

Beyond the actual temperature, Wind Chill demonstrates the way the wind and cold combine to affect exposed skin. As the wind increases, heat leaches away from the body at an exposed rate, driving down the body temperature.

The [NWS Wind Chill Chart](#) indicates how quickly the wind and cold can cause frostbite.



# NWS Windchill Chart



The following information on Hypothermia and Frostbite is adapted from information by the Centers for Disease Control and Prevention (CDC). More can be found at the CDC [Winter Weather FAQ page](#).

**Hypothermia**, or abnormally low body temperature, results when the body starts losing heat faster than it can be produced. Hypothermia can affect the brain, making it difficult for the victim to think clearly or move well, or even to know they are in danger. When the body temperature is below 95 degrees Fahrenheit, the situation is an emergency.

- Those most at risk include the elderly, babies sleeping in cold bedrooms, children left unattended, and anyone who remains outdoors for long periods.
- Hypothermia symptoms include uncontrolled shivering, memory loss, disorientation, and drowsiness. Warning signs in infants include cold, bright red skin and very low energy.
- If you notice these signs, take the person's temperature. If below 95 degrees Fahrenheit, seek medical help immediately!

- If medical care is not available, get the person into a warm room or shelter.
- Remove any wet clothing.
- Warm the center of the body first, including chest, head, neck and groin, using an electric blanket if available. Or use skin-to-skin contact under loose, dry layers of blankets, clothing, towels or sheets.
- Warm beverages can help increase the body temperature, but **DO NOT** give alcoholic beverages. **DO NOT** try to give beverages to an unconscious person.
- Keep the person dry and wrapped in a warm blanket, including head and neck.
- **IMPORTANT:** Individuals with severe hypothermia **may be unconscious and may not seem to have a pulse or be breathing.** CPR should be provided until the person is being warmed, until the person responds or medical help becomes available. In some cases, hypothermia victims who appear to be dead can be successfully resuscitated.

**Frostbite** is damage to body tissue caused by extreme cold.

- Frostbite symptoms include numbness and a pale color in extremities, such as fingers, toes, earlobes or the nose. Skin may feel unusually firm or waxy.
- If you detect these symptoms, get medical help immediately and slowly re-warm the affected areas.
- Get into a warm room as quickly as possible.
- **NEVER rub or massage frostbitten skin, especially not with snow.** This can cause more damage.
- Unless absolutely necessary, **NEVER walk on frostbitten feet or toes.** This can cause more damage.
- Warm affected areas with warm, **NOT HOT**, water. Or use body heat – for example, placing hands under armpits.

- DO NOT use a heating pad, heat lamp or the heat of a stove, fireplace or radiator for warming. Affected areas are numb and can be easily burned.
- For more frostbite tips visit the [CDC Winter Weather FAQ page](#).

## Ice And Road Hazards

- Heavy accumulations of ice can cause the collapse of trees, utility poles and communication towers.
- Ice can disrupt communications and power for days while utility companies repair damage.
- Even small amounts of ice can cause great danger for motorists and pedestrians. Bridges and overpasses are particularly dangerous because they freeze before other surfaces.
- **Remember:** For drivers, ice is not the only deadly hazard during winter. Heavy snow can impede visibility and create real danger. If at all possible, avoid driving during a winter storm.

## Winter Flooding

**Coastal Floods:** Winds during intense winter storms can cause widespread coastal flooding and beach erosion.

**Ice Jams:** Long cold spells can cause rivers and lakes to freeze. A rise in water level or a thaw can break the ice into large chunks, which can become jammed at manmade and natural obstructions. Ice jams can act as a dam, resulting in severe flooding.

**Snow melt:** Sudden thaw of a heavy snow pack often leads to flooding.

## Power Outages

**During a power outage:**

- If someone in the home is on life-support or otherwise electric dependent due to a disability, immediately notify your Utility and your local Police Department.

For everyone else:

- Call your utility to determine area repair schedules.
- Turn off or unplug lights and appliances to prevent a circuit overload when the power returns. Leave one light on to let you know when power has been restored.

- Turn on faucets slightly to prevent pipes from freezing. Running water will not freeze as quickly.
- Protect yourself from [carbon monoxide poisoning](#).
  - **Do not** operate generators indoors.
  - **Do not** use charcoal to cook indoors.
  - **Do not** use your gas oven to heat your home.
  - All of these activities can cause a deadly buildup of carbon monoxide gas. Use space heaters with proper ventilation.
- Keep your refrigerator and freezer doors closed as much as possible to avoid food spoilage.