



MEMORANDUM

TO: EMS Medical Directors
EMS System Coordinators
Hospital Emergency Departments

FROM: Illinois Department of Public Health

DATE: January 28, 2019

RE: **Extreme Cold Weather**

Given the extreme cold weather predicted across Illinois this week, IDPH reminds EMS agencies and hospital emergency departments of the health dangers of extreme low temperatures.

I. **IDPH recommends EMS agency personnel implement the following during extreme cold weather.**

Self:

- Dress in layers
- Stay hydrated
- Bring extra food and snacks for shift
- Wear appropriate waterproof boots/shoes and bring extra socks, etc.
- Avoid touching cold metal surfaces with bare skin.
- Monitor your physical condition and that of your coworkers.
- Move into warm locations during work breaks; limit the amount of time.

Vehicle:

- Make sure the heat works in the vehicle
- Make sure fluids are checked and topped off prior to leaving the station
- Make sure all warning lights, sirens are functioning properly
- Test communications equipment (radios, Merci) prior to departure
- Make sure to check your drugs including IV fluids; if kept in your vehicle for an extended period of time in these freezing conditions, they may cause decomposition of the medication which could make medications less potent.

Response:

- Slow down and allow extra room for stopping in inclement weather
- If you stop for an accident on the road make sure you wear appropriate reflective vest and get off the road as safely and soon as possible (relocate to safe area away from road)
- If you are outside on a response keep your equipment and yourself game ready in the back of a warm engine/truck cab or vehicle.
- Call for assistance with moving patients to vehicles
- May need to identify ways to move patients from home/apartment to vehicle if a stretcher and/or stair chair is not reasonable given weather conditions

Patients:

- Provide extra blankets if they must go out in the cold
- Ask for extra help when moving patients in the snow or on stairs
- If saline is cold, use a saline lock or keep IV solution wrapped in a blanket to try to keep it at room temp
- Include a thermometer and chemical hot packs in your first aid kit.

For more information on how to stay safe while working in cold weather conditions, please listen to this short podcast: <https://tools.cdc.gov/medialibrary/index.aspx#/media/id/303540>

Beginning today, Monday, January 28, 2019, IDPH will be tracking reports on frostbite and hypothermia-related ED visits in EMResource. Hospitals will be requested to increase EMResource reporting to every eight hours beginning at 6:00pm today, January 28 through 6:00pm Friday, February 1, 2019.

II. Guidelines on Management of Frostbite and Hypothermia

A. Frostbite

As a reminder, frostbite is bodily injury caused by freezing that results in loss of feeling and color in affected areas. It most often affects the nose, ears, cheeks, chin, fingers, or toes. Frostbite can permanently damage the body, and severe cases can lead to amputation.

At the first signs of redness or pain in any skin area, remove the individual from the cold and/or protect any exposed skin. Any of the following signs may indicate frostbite:

- White or grayish-yellow skin area
- Skin that feels unusually firm or waxy
- Numbness

A victim is often unaware of frostbite until someone else points it out because the frozen tissues are numb.

If you detect symptoms of frostbite, first determine whether the victim also shows signs of hypothermia. Hypothermia is a more serious medical condition and requires emergency medical assistance. If there is frostbite but no sign of hypothermia:

- Get patient into a warm room as soon as possible.
- Unless absolutely necessary, do not ask the patient to walk on frostbitten feet or toes—this increases the damage.
- Immerse the affected area in warm—**not hot**—water (the temperature should be comfortable to the touch for unaffected parts of the body).
- Or, warm the affected area using body heat. For example, the heat of an armpit can be used to warm frostbitten fingers.
- Do not rub the frostbitten area with snow or massage it at all. This can cause more damage.
- 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.
- Do not allow the patient to smoke/use tobacco or nicotine products.

B. Hypothermia

As you are aware, hypothermia is caused by prolonged exposures to very cold temperatures. When exposed to cold temperatures, the body begins to lose heat faster than produced. Body temperature that is too low affects the brain, making the victim unable to think clearly or move well. This makes hypothermia especially dangerous, because a person may not know that it's happening, becomes confused, and won't be able to do anything about it. A core body temperature below 95F constitutes a medical emergency.

Victims of hypothermia are often:

- Older adults with inadequate food, clothing, or heating
- Babies sleeping in cold bedrooms
- People who remain outdoors for long periods—the homeless, hikers, hunters, etc.
- People who drink alcohol or use illicit drugs.

Warnings signs of hypothermia:

Adults:

- shivering, exhaustion
- confusion, fumbling hands
- memory loss, slurred speech drowsiness

Infants:

- reddish, cold skin
- very low energy
- weak cry