

# Safety Circular

September 2025

## Winter Weather Awareness

During the winter, many workers are outdoors, working and driving in cold, wet, icy, or snowy conditions. The cold stress they experience can lead to injuries and illnesses, such as hypothermia, frostbite, and trench foot and driving accidents. TDCJ wants you to know how to protect yourself from **cold stress, vehicle accidents, and slips, trips, and falls** while at work.

### What are the Risk Factors that contribute to cold stress?

- Wetness/dampness, dressing improperly, and exhaustion
- Predisposing health conditions such as hypertension, hypothyroidism, and diabetes
- Poor physical conditioning

### How does the body react to cold conditions?

In a cold environment, most of the body's energy is used to keep the internal core temperature warm. Over time, the body will begin to shift blood flow from the extremities (hands, feet, arms, and legs) and outer skin to the core (chest and abdomen). This shift allows the exposed skin and the extremities to cool rapidly and increases the risk of frostbite and hypothermia. Combine this scenario with exposure to a wet environment, and trench foot may also be a problem.

### What are the most common cold induced illnesses and injuries?

- Hypothermia
- Frostbite
- Trench Foot

### What is Hypothermia?

**Hypothermia** occurs when body heat is lost faster than it can be replaced and the normal body temperature (98.6°F) drops to less than 95°F. Hypothermia is most likely at very cold temperatures, but it can occur even at cool temperatures (above 40°F), if a person becomes chilled from rain, sweat, or submersion in cold water.

### What are the Symptoms of Hypothermia?

#### Mild symptoms:

- An exposed worker is alert.
- He or she may begin to shiver and stomp the feet in order to generate heat.

#### Moderate to Severe symptoms:

- As the body temperature continues to fall, symptoms will worsen and shivering will stop.
- The worker may lose coordination and fumble with items in the hand, become confused and disoriented
- He or she may be unable to walk or stand, pupils become dilated, pulse and breathing become slowed, and loss of consciousness can occur. A person could die if help is not received immediately.

### What can be done for a person suffering from hypothermia?

- Call 911 immediately in an emergency; otherwise seek medical assistance as soon as possible.
- Move the person to a warm room or vehicle.
- Remove wet clothes and replace with dry clothes, cover the body (including the head and neck) with layers of blankets; and with a vapor barrier (e.g. tarp, garbage bag). Do **not** cover the face.

### If medical help is more than 30 minutes away:

- Give warm sweetened drinks if alert (no alcohol), to help increase the body temperature. Never try to give a drink to an unconscious person.
- Place warm bottles or hot packs in armpits, sides of chest, and groin.
- Call 911 for additional rewarming instructions.

### If a person is not breathing or has no pulse:

- Call 911 for emergency medical assistance immediately.
- Perform cardiopulmonary resuscitation (CPR) until the person responds or medical aid becomes available.



## What is Frostbite?

**Frostbite** is an injury to the body that is caused by freezing of the skin and underlying tissues. The lower the temperature, the more quickly frostbite will occur. Frostbite typically affects the extremities, particularly the feet and hands. Amputation may be required in severe cases.

### What are the symptoms of frostbite?

- Numbness in the affected body part
- Tingling or stinging
- Aching
- Bluish or pale, waxy skin
- Blisters may occur in the affected part, in severe cases



### Suffering from frostbite?

- Do not rub the affected area to warm it because this action can cause more damage.
- Do not apply snow/water. Do not break blisters.
- Loosely cover and protect the area from contact.
- Do not try to rewarm the frostbitten area before getting medical help; for example, do not place in warm water. If a frostbitten area is rewarmed and gets frozen again, more tissue damage will occur. It is safer for the frostbitten area to be rewarmed by medical professionals.
- Do not massage the frostbitten area; doing so may cause more damage.
- Give warm sweetened drinks, if the person is alert. Avoid drinks with alcohol.

## What is Immersion/Trench Foot?

**Trench Foot** or immersion foot is caused by prolonged exposure to wet and cold temperatures. It can occur at temperatures as high as 60°F if the feet are constantly wet. Non-freezing injury occurs because wet feet lose heat 25-times faster than dry feet. To prevent heat loss, the body constricts the blood vessels to shut down circulation in the feet. The skin tissue begins to die because of a lack of oxygen and nutrients and due to the buildup of toxic products.

### Symptoms of trench foot?

- Redness of the skin
- Numbness, Leg cramps
- Swelling
- Blisters or ulcers
- Bleeding under the skin
- Gangrene (foot may turn dark purple, blue, or gray)



### Suffering from immersion foot?

- Call 911 immediately in an emergency; otherwise seek medical assistance as soon as possible.
- Remove the shoes, or boots, and wet socks.
- Dry the feet.
- Avoid walking on feet, as this may cause tissue damage.

## Dress Appropriately for Winter Months

- Choose the right fabric: Avoid cotton and opt for insulated materials
- Wear layers: Enough to stay warm but not too many to restrict movement
- Wear loose-fitting clothing
- Protect your head and neck
- Wear insulated boots
- Protect your extremities use gloves
- Wear thermals

## Stay Hydrated during Winter Months

- Drink warm fluids if you find it difficult to drink cold water when it's cold outside
- Carry a water bottle with you everywhere you go to encourage hydration throughout the day
- Drink your food. Homemade soups in winter can increase fluid intake to help you meet your fluid needs, as well as including water-rich fruits and vegetables such as green leafy vegetables, citrus fruits, melon, tomatoes and cucumbers
- Avoid too much caffeine which can contribute to dehydration
- Make hydration a routine with the goal of drinking a certain amount of water each day. Start by incorporating a glass of water on your bedside table to be consumed first thing in the morning and aim to make it your drink of choice throughout the day

## Responding to an Emergency

**Slips, Trips, and Falls**, happen most during an emergency situation. Stay alert and be mindful of your surroundings. Put your personal Safety First.

- Respond at a reasonable pace to prevent injury
- Avoid ice and ice-build up
- Don't run on walkways, sidewalks, or stairs with ice or snow
- Be on alert for black ice
- Avoid standing water
- Adhere to posted Warning signs
- Know your surroundings, **prevent Slips, Trips and Falls**

## Space Heater in the Workplace

- Purchase space heaters that have been safely tested and UL approved. Make sure the unit is equipped with an *emergency tip-over shut-off feature and heating guards.*
- **(NFPA) 101 Life Safety Code prohibits the use of portable space heaters in correctional occupancies.**

## Winter Driving Strategies

- Increase following distance to at least 8-10 seconds
- DO NOT be overly confident in 4-wheel drive vehicles just because they can get through conditions easier, it does not mean they can stop in time
- Always decrease speed
- Use extra caution on bridges and overpasses
- Turn on headlights
- Avoid trucks
- Avoid any fast or sharp movements
- Accelerate gently
- Turn slowly
- Brake carefully and early



**Don't Take Chances!**

## Stopping or Braking on Ice

- Maintain minimal pressure on the brakes
- Steer in the direction you want to go
- Do not shift into lower gear, rear wheels may spin, the vehicle will travel sideways
- If you begin to slide, hold steering wheel firmly, use very little motion to keep car on the road or your car may begin to sway back and forth uncontrollably (Fishtail).
- Do not over apply brakes. If you feel the brake "pulse", your antilock brakes are working. If you do not feel the brakes "pulse" you should apply more pressure.
- Accelerate the gas once you are off of the ice and the vehicle is straight

## Driving in the Rain

- Drive slower than usual.
- Turn on headlights (even in daytime).
- Turn on windshield wipers.
- Make sure outside windows and mirrors are clear of debris.
- Be cautious when changing speed and direction.
- Make smooth hand & foot movements.
- DO NOT drive through pools of water.
- Stay in the middle lane of multi-lane highways as water collects on the outside of the lane.



## Driving in the Fog

- Slow down
- Check speedometer
- Go slower than speed limit
- Turn on low beams, wipers, and defroster
- Scan the road for other drivers
- Watch for pedestrians and animals
- Crack the window
- Turn off the radio
- Listen for other cars engines
- Smoothly brake and steer
- Turn on emergency flashers
- Look for a safe place to pull off the road until your visibility improves



### **Safety Circular TDCJ Risk Management Department**

**Marvin Dunbar , Director**  
Administrative Review and Risk Management Division

**Leonard Echessa, Deputy Director**  
Administrative Review and Risk Management Division

The Safety Circular, a publication of the Texas Department of Criminal Justice Risk Management Department, is published monthly in an effort to promote and enhance risk management awareness on issues relating to TDCJ employees. Comments, suggestions and safety related items are welcome.

Send suggestions to:

**Jeania Pegoda, Manager IV**  
Risk Management  
P.O. Box 99, Huntsville, Texas 77340  
or, Jeania.Pegoda@tdcj.texas.gov

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References: ♦oOSHA.gov (Cold Stress Guide) ♦(Working in the Cold) CDC ♦Massachusetts General Hospital: *Tips for Staying Hydrated* ♦icandrive.com: Student Handout ♦