



# Baylor University

## Cold Stress Guidelines

### **Purpose**

Winter weather presents hazards including slippery roads/surfaces, strong winds and environmental cold. The university wants to do everything possible to prevent illnesses and injuries by controlling the hazards in the workplace impacted by winter weather.

This guideline is designed to help university workers, students, and guest prepare for winter weather, and provide information about hazards that may be faced during and after winter storms.

### **What is Cold Stress?**

What constitutes cold stress, and its effects can vary across different areas of the country. In regions that are not used to winter weather, near freezing temperatures are considered factors for "cold stress." Increased wind speed also causes heat to leave the body more rapidly (wind chill effect). Wetness or dampness, even from body sweat, also facilitates heat loss from the body. Cold stress occurs by driving down the skin temperature, and eventually the internal body temperature. When the body is unable to warm itself, serious cold-related illnesses and injuries may occur, and permanent tissue damage and death may result. Types of cold stress include trench foot, frostbite, and hypothermia.

### **Cold Stress Can be Prevented**

It is important to know the wind chill temperature so exposure risk and safety protocols needed can be gauged and implemented. When dealing with employees it is important to monitor workers physical condition during tasks, especially new workers who may not be used to working in the cold, or workers returning after spending some time away from work. Student exposure is a priority to the university as well, so that appropriate measures can be taken and needed information disseminated to everyone concerned.

## **How can Cold Stress be Prevented?**

Although OSHA does not have a specific standard that covers working in cold environments, under the [Occupational Safety and Health Act \(OSH Act\) of 1970](#), employers have a duty to protect workers from recognized hazards, including cold stress hazards, that are causing or likely to cause death or serious physical harm in the workplace.

- Employers should train workers. Training should include:
  - How to recognize the environmental and workplace conditions that can lead to cold stress.
  - The symptoms of cold stress, how to prevent cold stress, and what to do to help those who are affected.
  - How to select proper clothing for cold, wet, and windy conditions.
- Employers should:
  - Monitor workers physical condition.
  - Schedule frequent short breaks in warm dry areas, to allow the body to warm up.
  - Schedule work during the warmest part of the day.
  - Use the buddy system (work in pairs).
  - Provide warm, sweet beverages. Avoid drinks with alcohol.
  - Provide engineering controls such as radiant heaters.

## **Preventing Slips on Snow and Ice**

To prevent slips, trips, and falls, employers should clear walking surfaces of snow and ice, and spread deicer, as quickly as possible after a winter storm. In addition, the following precautions will help reduce the likelihood of injuries:

- Wear proper footwear when walking on snow or ice is unavoidable because it is especially treacherous. A pair of insulated and water-resistant boots with good rubber treads is a must for walking during or after a winter storm. Keeping a pair of rubber over-shoes with good treads which fit over your street shoes is a good idea during the winter months.
- Take short steps and walk at a slower pace so you can react quickly to a change in traction, when walking on an icy or snow-covered walkway.

For more information about cold stress, you can access the following link provided by OSHA: <https://www.osha.gov/emergency-preparedness/guides/cold-stress>

The university contact pertaining to cold stress questions is the EHS Campus Safety Manager. 254-709-1991