

WHEN TEMPERATURES DROP, HAVING THE RIGHT COLD WEATHER GEAR IS CRITICAL.

HELP CREWS STAY SAFE AND PRODUCTIVE IN WINTER CONDITIONS.

PROLONGED EXPOSURE TO THE COLD CAUSES THE BODY TO USE STORED ENERGY FASTER, WHICH REDUCES PRODUCTIVITY AND CAN LEAD TO SERIOUS JOB SITE SAFETY ISSUES.

Cold temperatures and winter conditions can make working outdoors uncomfortable, and it can be dangerous for crews not prepared for the elements. Prolonged exposure to the cold causes the body to use stored energy faster, which reduces productivity and can lead to serious job site safety issues.

There are some jobs where working outdoors, no matter the temperature, is a fact of life. Construction workers, farmers, truck drivers, airport ground crews, delivery people, road crews, tow truck operators, sanitation teams, transit workers, parking attendants, maintenance people and first responders are expected to be on the job even in harsh winter conditions.

Cold stress and injuries can come in many forms: frostbite, hypothermia, trench foot and chilblains are just some of the debilitating consequences of not being ready for the cold with the right gear and planning. And it's not just sub-zero conditions. Workers can suffer cold stress even when the thermometer reads 60°, while they face wet or windy weather. These conditions are dangerous, could lead to long-term disabilities and can be life-threatening.

WINTER WEATHER JOB SITE CHALLENGES:

AIR TEMPERATURE
WIND VELOCITY
HUMIDITY
PRECIPITATION

Winter weather presents three different job site challenges: air temperature, wind velocity and humidity/precipitation levels. Each can result in a drop in the core temperature of an outdoor worker and other issues with exposed skin and vulnerable extremities, especially hands and feet.

The good news is that crews can be prepared for the conditions. Making sure the workers on your job sites have the right gear not only helps to prevent potential serious injuries, it also serves to keep them focused and productive. Staying alert in winter is important because the weather can also bring wet and icy conditions, increasing the chance for slips and falls.

COLD WEATHER HAS AN IMPACT.

A 2004 Cornell University study found that office workers were less productive and had significantly higher error rates when they worked in a "cold" 68° office compared to a "warm" 77° office. Decreased exercise rates because of inclement weather, and shifts in moods, sleeping patterns and eating habits caused by shorter periods of sunlight, lead to winter blues that can cause reduced work output, increased absenteeism and reduced overall wellness. It is no surprise that for workers who do jobs that have them outside in winter conditions most or all of the time, it can be a major struggle to work efficiently and effectively.

The 2007–2008 Tromsø Study looked at 6,533 men and women between the ages of 30 and 67 in Finland. Of this group, 779 reported working in cold conditions at least 25% of the time. The results showed that workers who regularly faced cold temperatures were more likely to report musculoskeletal pain in multiple parts of their bodies.

The U.S. Army has conducted extensive research into how humans function in severe cold-weather conditions. Scientists from the Army's Research Institute of Environmental Medicine have studied how the military must adapt to operate in Arctic conditions. Army scientists believe training soldiers to spot the early signs of cold stress and understand actions to help recover are critical steps. Simple things like a lost glove or ignoring cold feet can lead to much bigger problems. Because the body decreases blood flow to the hands and feet in severe cold, a loss of hand dexterity often develops. This is a major issue for front-line troops. For this reason, the military has been testing a forearm heating device.

Learn more about how Carhartt Company Gear can be a business advantage.

FROM 2003 TO 2019, ENVIRONMENTAL COLD RESULTED IN

31 WORKER DEATHS & 2,770 SERIOUS INJURIES

U.S. Bureau of Labor Statistics data for 2003 to 2019 found exposure to environmental cold resulted in 31 worker deaths and 2,770 serious injuries. The dangers of suffering cold-stress injuries increase when there is poor physical fitness or underlying health conditions, such as hypertension, hypothyroidism and diabetes. Improper dressing for the conditions and wet clothing are also contributing factors.

THE CARHARTT APPROACH

Carhartt Company Gear has a more than 130-year heritage of manufacturing workwear that meets harsh weather conditions. With industry-leading manufacturing quality, durability, styling and size range, Carhartt understands that crew needs are as varied as the weather.

To help guide your selection process, Carhartt has an exclusive Warmth Ratings System that ranks uniforms and other work gear on a four-point scale to assist you in selecting the right gear for your crew:

Carhartt Rain Defender® uniforms provide durable, lightweight solutions that feature water-repellent technology to keep crews drier for longer. Carhartt Super Dux™ is perfect for changing weather conditions, and offers wind and water resistance. Both Rain Defender® and Super Dux™ jackets are available in insulated versions for extra cold-weather protection.

Carhartt also offers FR cold-weather gear that complies with NFPA 2112 and 70E standards for flame-resistant uniforms, and these can be layered for extra protection for cold stress.

ARE YOU READY FOR WINTER?

As cold weather approaches, making sure your crews are ready for the worst of winter is important. Having uniform solutions that offer layered protection that keeps workers dry and heads, hands and feet warm is critical. You can also look for ways to shield work areas from wind and the elements, as well as providing radiant heaters or warm break areas.

1. **WARM** Engineered to deliver low warmth and keep you working comfortably in cooler conditions.
2. **WARMER** Engineered to deliver mid-range warmth and keep you working comfortably in moderately cold conditions.
3. **WARMEST** Engineered to deliver high warmth and keep you working comfortably in severely cold conditions.
4. **EXTREME WARMTH** Engineered for extreme warmth to keep you working comfortably in the coldest temps.

KNOW BEFORE YOU GO

Before you head to a job site it is best to know what the weather conditions will be like throughout the day.

The National Weather Service publishes a daily briefing that contains daily and long-range forecasts, as well as information on everything from earthquakes and volcanic activity to landslide warnings. Radar maps can help you adjust outdoor work plans by the hour, while tropical storm tracking, wildfire information and travel advisories can help you make longer-range scheduling decisions.

In many communities, local television stations have trained meteorologists who provide regional forecasts, and they may also offer weather alert services through an app or by text. These can be helpful throughout the year to monitor fast-changing conditions and approaching storms. If you are in an area without reliable access to local forecasts, you may want to purchase a weather radio that broadcasts over the VHF public service band. Using one of these radios provides 24/7/365 access to NOAA Weather Radio All Hazards broadcasts. These continuous broadcasts provided by the National Oceanic and Atmospheric Administration (NOAA) are designed to protect lives and property by covering everything from cold weather and blizzard warnings to tornado and tsunami alerts.

STEPS TO WARD OFF THE COLD

The National Institute for Occupational Safety and Health (NIOSH) recommends the following tips for workers that need to be outdoors during cold weather:

1. **BE READY.** Wear clothing that is right for the conditions.
2. **WEAR SEVERAL LAYERS** of loose-fitting clothes.
3. **PROTECT YOUR FACE, EARS AND HANDS.** Wear a hat and waterproof gloves and boots.
4. **HAVE EXTRA** socks, gloves, hats, jackets, changes of clothes and a blanket available.
5. **DRINK WARM BEVERAGES.**
6. **TAKE WARMING BREAKS** inside a heated shelter or vehicle.
7. **LIMIT TIME OUTDOORS** on extremely cold days.
8. **SCHEDULE** outside work for the warmest part of the day and have relief workers ready for longer jobs.

SPOTTING COLD-WEATHER ILLNESSES

According to the Occupational Safety and Health Administration (OSHA), cold weather can cause a number of serious health issues. OSHA advises employers to train workers on how to prevent, spot and provide first aid for cold-weather injuries. This includes using appropriate personal protective equipment and clothing, and following work practices that reduce potential exposure. Knowing what symptoms to look for can help reduce the potential damage.

COLD STRESS

Occurs when weather conditions drive down skin temperature and internal temperature. OSHA requires employers to protect workers from known hazards, and these include cold temperatures.

TRENCH FOOT

A nonfreezing injury to the feet caused by prolonged exposure to wet and cold conditions. It can occur with constantly wet feet even in temperatures as high as 60 °F. Symptoms include skin redness, numbness, tingling, pain, swelling, leg cramps, blisters, bleeding under the skin and even gangrene.

CHILBLAINS

A condition where small blood vessels in the skin become inflamed and painful because of exposure to temperatures from just above freezing to 60 °F. Symptoms include redness, itching and inflammation. Sometimes there are blisters, and in severe cases skin will become ulcerated.

HYPOTHERMIA

When body heat is lost faster than it can be replaced and a person's temperature drops from the normal 98.6 °F to 95 °F. This normally happens under severe conditions, but can occur even in milder conditions if a worker is wet from rain, sweat or submersion in cold water. Symptoms include shivering, loss of coordination and confusion.

FROSTBITE

Frostbite injures the body by freezing the skin and underlying tissue. Frostbite often attacks feet, hands and other extremities. Symptoms include numbness, tingling, stinging and aching in that part of the body. Skin can be bluish, pale and waxy, sometimes with blisters.