



QUALITY INTEGRATED SERVICES

# SAFETY MOMENT

It's about the team, your safety matters.

QIS Safety, December 21, 2020

The seasons have changed and the pandemic is raging. Staying on top of the latest updates from the operator, from QIS, local authorities, the CDC, ensuring you're versed in the most important social distancing and quarantine guidelines, following daily contractor updates (and learning where toilet paper is still available) are, of course, important. But what happens when your focus on the pandemic becomes overwhelming and you can't concentrate on work anymore? Changing your focus to work issues can be normalizing and can provide fulfillment in tumultuous times. Nothing is more important than your safety. Today's topic:

## COLD STRESS

How cold is too cold?



What constitutes extreme cold 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 "extreme cold." A cold environment forces the body to work harder to maintain its temperature. Whenever temperatures drop below normal and wind speed increases, heat leaves your body more rapidly.

Cold stress occurs by driving down the skin temperature and eventually the internal body temperature (core temperature). This may lead to serious health problems, including tissue damage and possibly death. Some of the risk factors that contribute to cold stress are:

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

## The body's reaction to cold.

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, increasing the risk of cold stress illnesses and injuries.

## Cold stress dangers.

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 occurs most often at very cold temperatures. It can also occur at temperatures above 40°F if a person becomes chilled from rain, sweat, or submersion in cold water. Confusion and fatigue can set in, hampering a person's ability to understand what's happening and make intelligent choices to get to safety. In severe hypothermia, a person may be unconscious without obvious signs of breathing or a pulse.

Frostbite is an injury to the body that is caused by the freezing of skin and underlying tissues. The lower the temperature, the more quickly frostbite will occur. It's the most common injury resulting from exposure to severe cold, and it usually occurs on fingers, toes, nose, ears, cheeks and chin. Amputation may be required in severe cases.

Trench 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 the buildup of toxic products.

