

## THE COLD STRESS EQUATION – HYPOTHERMIA

### What cold temperatures mean for your safety

Cold-related injuries and illnesses can slowly overcome a person who has been chilled by low temperatures, brisk winds or wet clothing. This dangerous combination is known as The Cold Stress Equation, according to the Occupational Safety and Health Administration (OSHA).

When hypothermia occurs, the normal body temperature (98.6° F) drops to or below 95° F and causes fatigue, drowsiness, uncontrolled shivering, bluish skin, slurred speech, clumsy movements, irritability and irrational or confused behavior.

If you suspect a coworker has hypothermia while working on land, do the following:

- Call for emergency assistance as soon as possible.
- Move the person to a warm, dry area. Do not leave them alone.
- Remove any wet clothing and replace it with warm, dry clothing or wrap the person in blankets.
- Have the person drink warm, sweet drinks (sugar water or a sports drink) if they are alert.
- Have the person move his or her arms and legs to create muscle heat. If he or she is unable to do this, place warm bottles or hot packs in the armpits, groin, neck and head area. DO NOT rub the person's body or place him or her in a warm water bath, as this may stop the heart.

If you suspect a coworker has hypothermia while he or she is in water, do the following:

- Call for emergency assistance immediately. Body heat is lost up to 25 times faster in water.
- DO NOT remove any clothing. Instead, button, buckle, zip and tighten any collars, cuffs, shoes and hoods. The layer of trapped water closest to the body provides insulation that slows heat loss.
- Get the person out of the water as soon as possible or have him or her climb on a floating item. The person should not attempt to swim, unless another person or object can be reached.
- If getting the person out of the water is impossible, help the person conserve body heat by folding the arms across the chest, keeping the thighs together, bending the knees and crossing the ankles.

WHEN IN A COLD ENVIRONMENT, YOUR BODY KEEPS INTERNAL ORGANS WARM BY INCREASING BLOOD FLOW TO THE CORE AND DECREASING BLOOD FLOW TO EXTREMITIES. AS A RESULT, YOU'RE AT AN ELEVATED RISK FOR HYPOTHERMIA.