Cold Stress—Protect Yourself

When the body is unable to warm itself, serious cold-related illnesses and injuries may occur, and permanent tissue damage and death may result.

**Hypothermia**

Symptoms:
- Normal body temperature (98.6 F) drops to or below 95 F
- Fatigue, drowsiness, uncontrolled shivering, cool bluish skin, slurred speech, clumsy movements, irritable, irrational or confused behavior

What should be done: (land temperatures)
- Call 911
- Move the person to a warm, dry area. Don’t leave the person alone. Remove any wet clothing and replace with warm, dry clothing or wrap in blankets.
- Drink warm, sweet drinks (sugar water or sports drinks) if alert. Avoid caffeine drinks.
- Have the person move their arms and legs to create muscle heat. If they are unable to do this, place warm bottles or hot packs in the arm pits, groin, neck and head areas. DO NOT rub the person’s body or place them in warm water bath. This may stop their heart.

What should be done: (water temperatures)
- Call 911—body heat is lost up to 25 times faster in water
- DO NOT remove any clothing. Button, buckle, zip and tighten any collars, cuffs, shoes, and hoods because the layer of trapped water closest to the body provides a layer of insulation that slows the loss of heat. Keep the head out of the water and put on a hat or hood.
- Get out of the water as quickly as possible. DO NOT attempt to swim unless a floating object or another person can be reached. Swimming or other physical activity uses the body’s heat and reduces survival time by about 50 %.
- If getting out of the water is not possible, wait and conserve body heat by folding arms across the chest, keeping the thighs together, bending knees, and crossing ankles. If another person is in the water, huddle together with chests held closely.

**Frost Bite**

Symptoms:
- Freezing in deep layers of skin and tissue; pale, waxy-white skin color; skin becomes hard and numb; usually affects the fingers, toes, feet, ears, and nose

What should be done:
- Move the person to a warm dry area. Do not leave the person alone.
- Remove wet or tight clothing that may cut off blood flow to affected area.
- DO NOT rub the affected area. Rubbing may damage the skin and tissue.
- Gently place the affected area in warm (105 F) water bath and monitor the temperature to slowly warm the tissue. Don’t pour warm water directly on the area because it may warm the tissue too fast causing tissue damage. Warming takes about 25-40 minutes.
- After the area has been warmed, it may become puffy and blister. It may have a burning feeling or numbness. When normal feeling, movement, and skin color have returned, the affected area should be dried and wrapped to keep it warm. If there is a chance the area may get cold again, do not warm the skin. This can cause severe tissue damage.
- Seek medical attention as soon as possible.