

## TOOLBOX TALK

# Cold Stress Safety

### WHY THIS MATTERS

Cold stress causes dozens of workplace deaths and thousands of injuries every year. When the body loses heat faster than it can produce it, hypothermia, frostbite, and trench foot develop rapidly. Wind chill, wet clothing, and fatigue dramatically accelerate cold injuries.

**50+**

Workplace cold-related deaths per year

**4°C**

Below this temp (40°F) cold stress risk begins

**100%**

Cold stress injuries are preventable

## 5 Ways to Prevent Cold Stress

Protect yourself and your team when working in cold conditions:

**1**

### DRESS IN LAYERS

Inner moisture-wicking layer, insulating middle layer, outer wind/waterproof layer. Cover extremities.

**2**

### TAKE WARM-UP BREAKS

Schedule regular breaks in heated shelters. Frequency increases as temperature and wind chill drop.

**3**

### STAY DRY AT ALL TIMES

Wet clothing loses insulation rapidly. Change wet clothes immediately. Keep spare dry clothing available.

**4**

### BUDDY SYSTEM — WATCH EACH OTHER

Cold impairs judgment before you realize it. Monitor coworkers for signs of hypothermia and frostbite.

**5**

### STAY HYDRATED AND FUELED

Drink warm fluids regularly. Eat high-calorie foods for energy. Avoid caffeine and alcohol.

## Cold Work Checklist

- Is the wind chill factor calculated and communicated?
- Are heated shelters or warm-up areas available nearby?
- Do all workers have proper layered cold weather clothing?
- Is the buddy system in place to monitor for cold symptoms?
- Are warm beverages and high-energy food accessible?

## Know the 3 Cold-Related Illnesses

### Hypothermia

Body temp drops below 35°C (95°F). Symptoms: shivering, confusion, slurred speech, drowsiness.

**FIRST AID:** Move to warm area. Remove wet clothing. Warm the core FIRST. Call 911. No rubbing or direct heat.

### Frostbite

Skin and tissue freeze. Affects fingers, toes, ears, nose. Skin turns white/gray, feels waxy and numb.

**FIRST AID:** Move indoors. Warm in lukewarm water (40-42°C). Do NOT rub. Do NOT rewarm if refreezing is possible.

### Trench Foot

Prolonged wet cold exposure (not freezing). Feet become red, swollen, numb, blistered. Permanent damage.

**FIRST AID:** Remove wet boots and socks. Dry feet, elevate. Do NOT walk on affected feet. Seek medical help.

## Common Mistakes That Cause Cold Injuries

- ✗ "I'm fine, I'll tough it out" — cold impairs your judgment before you feel the danger
- ✗ Wearing cotton as a base layer — cotton absorbs moisture and accelerates heat loss
- ✗ Skipping warm-up breaks to finish faster — hypothermia sets in gradually without warning
- ✗ Not changing wet clothing immediately — wet clothes lose 25x more heat than dry clothes
- ✗ Drinking alcohol to "warm up" — alcohol dilates blood vessels and accelerates heat loss

## Safety Tips to Remember

- ✓ Layer up BEFORE going outside — once you're cold, it's harder to warm up
- ✓ Protect extremities first — fingers, toes, ears, and nose freeze fastest
- ✓ If you stop shivering, that's an EMERGENCY — your body is losing the fight against cold
- ✓ Wind chill is the real temperature — 5°C with 30 km/h wind feels like -5°C
- ✓ Know the symptoms — confusion, slurred speech, and clumsiness mean hypothermia is setting in

## Discussion Questions for Your Team

1. What is the temperature and wind chill forecast for today?
2. Where is the nearest warm-up shelter on our site?
3. Does everyone have proper cold weather clothing and dry spares?
4. Who is your buddy partner for monitoring cold stress symptoms?
5. What would you do if a coworker stopped shivering and became confused?

### TOOLBOX TALK SIGN-OFF

Date: \_\_\_\_\_ Supervisor: \_\_\_\_\_

Project: \_\_\_\_\_ Location: \_\_\_\_\_

Attendance sheet attached:  Yes