TOOLBOXTALK

COLD STRESS PREVENTION

Cold stress occurs when the body loses heat faster than it can replace it. Freezing temperatures are not required. A worker can become hypothermic at temperatures around 60°F, especially when wet, exposed to wind, or exhausted. Wind increases heat loss, while rain, sweat, and wet clothing can rapidly pull heat away from the body. A worker who sweats through clothing during heavy work can become dangerously cold when the work slows or stops.

RECOGNIZE THE CHANGE

Cold stress can affect the brain before the worker realizes how serious the condition has become. Watch for persistent shivering, numbness, unusual fatigue, stumbling, poor coordination, slurred speech, confusion, slow responses, or unusual behavior. Do not rely on an affected worker to determine whether they are okay because cold stress can affect judgment and awareness. One of the clearest warning signs is a worker who suddenly appears drunk or impaired. Shivering is the body trying to generate heat. ***If a very cold worker stops shivering while still showing symptoms, their hypothermia may be getting worse.***

COMMON COLD ILLNESSES AND INJURIES

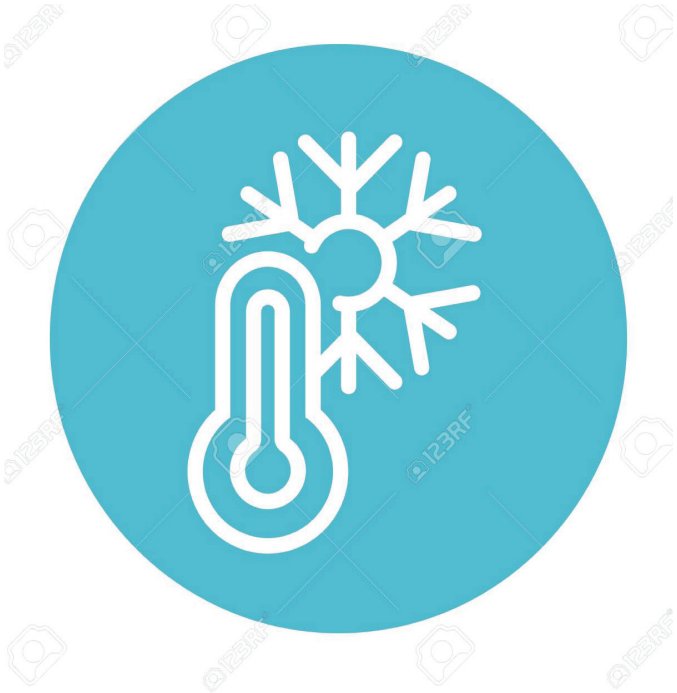
- Hypothermia: The body loses heat faster than it can replace it, causing shivering, confusion, poor coordination, slurred speech, drowsiness, and eventually loss of consciousness.
- Frostbite: Skin and underlying tissue freeze, commonly affecting the fingers, toes, ears, nose, cheeks, and other exposed areas.
- Frostnip: An early cold injury that can cause numbness, tingling, pain, or changes in skin color.
- Trench Foot: Prolonged exposure to cold and wet conditions can damage the feet even above freezing, causing numbness, swelling, pain, or changes in skin color.

PREVENTION

Dress in layers and keep clothing as dry as possible. Layers allow workers to remove clothing as their workload increases and add it again when activity slows. Wet clothing, gloves, and socks should be replaced as soon as practical. Protect the hands, feet, head, ears, and face when conditions require it. Consider temperature, wind, moisture, workload, and length of exposure together. Provide a warm, dry recovery area and allow workers time to warm up during prolonged exposure. Use a buddy system during significant cold conditions so workers can recognize changes in each other that they may not recognize in themselves.

IF SOMEONE SHOWS SIGNS OF COLD STRESS

Move the worker to a warm, dry area, remove wet clothing, and replace it with dry clothing or blankets. Warm the center of the body first and remain with the worker. Confusion, slurred speech, severe loss of coordination, unusual drowsiness, unconsciousness, or stopping shivering while still very cold should be treated as a medical emergency. Call 911. Frostbite may cause numbness or skin that appears pale, gray, waxy,



firm, or hard. Move the worker to a warm area, protect the affected body part, and seek medical attention. ***Do not rub or massage suspected frostbite or apply direct heat such as a heating pad, fire, or very hot water.***

DO

- Dress in layers, stay dry, and replace wet clothing.
- Provide a warm, dry area for recovery.
- Use a buddy system during significant cold exposure.

DON'T

- Do not rely on temperature alone; consider wind and moisture.
- Do not rely on an impaired worker to determine whether they are okay.
- Never rub or apply direct heat to suspected frostbite, and never leave a worker with serious cold stress symptoms alone.

REVIEW QUESTIONS

1. How can a worker develop hypothermia when the temperature is around 60°F?

   a) Wet, wind, exhaustion

2. What changes may make a worker with hypothermia appear drunk or impaired?

   a) Stumbling, slurred speech, confusion

3. Why can stopping shivering be a dangerous sign?

   a) Hypothermia may be worsening

4. What should you never do to suspected frostbite?

   a) Rub or apply direct heat

References: OSHA Cold Stress guidance; NIOSH Cold Stress recommendations.

Talk Given By:	Date:
Company Name:	Location:
Printed Name	Signature

Under the Occupational Safety and Health Act, employers are responsible for providing a safe and healthy workplace and workers have rights. OSHA can help answer questions or concerns from employers and workers. OSHA's On-site Consultation Program offers free and confidential advice to small and medium-sized businesses, with priority given to high-hazard worksites. For more information, contact your regional or area OSHA office, call 1-800-321-OSHA (6742), or visit www.osha.gov.

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