

TOPIC: Working In Heat

ACKNOWLEDGE: Thank you for being here and participating in this safety talk. I know your time is valuable, so I will ensure every moment of this talk is worth your while (*make eye contact with the entire group*).

Training Tips:

Ask a lot of questions: While delivering your Safety Talk, ask questions that ‘hook the mind’ and engage your participants. The simple act of asking questions is a High Impact Training technique!

Raise a hand when asking questions: Directed to your audience, you’ll often find that people are more willing to answer your questions and become active participants... try it out! Also, pause for a moment after asking a question; waiting for and encouraging responses from the group.

Provide an example of a personal experience: (or a recent news event) For instance: “A close friend of mine once _____”, or “Just last week _____”. This is a very effective method to help participants relate to your topic. It often helps them to realize: ‘*Yeah, this could affect me. I should listen to this.*’

What’s in it for Me? (WIIFM): I am here to deliver a brief safety talk on how to work safely in the heat. It is important for you to understand the precautions necessary to prevent heat stress. It is equally important for you to have the skills needed to identify and treat the symptoms of heat stress. Why? Well, not only can heat stress cause illness; it can also result in death. Symptoms of heat stress are not what we want you to experience at work.



Did You Know? The Highest World temperature recorded was 58°C (136°F) in Al Aziziyah, Libya on September 13, 1922. The Highest Canadian temperature recorded 45°C (113°F) in Midale Saskatchewan on July 13, 1937.



ASK: Does anyone have an example / know of a person who has suffered serious consequences to heat exposure? (*Wait and encourage responses.....be prepared with an example of your own*).

ASK: What is Heat Stress? (*Wait for and encourage responses*).

- Heat stress is the body's inability to control its internal temperature. It can result in serious illness or death.

ASK: What are some of the disorders and their symptoms of heat stress. (*Wait for and encourage responses*).

- **Heat Rashes:** These are a common problem resulting from persistent wetting of clothing by un-evaporated sweat.
 - **Symptoms:** Clusters of small red dots or pimples and itchy skin
 - **First Aid Treatment:** If possible allow the area to get dry, cool air, use a drying agent like talc or baby powder
- **Heat Cramps:** These are usually the result of hard physical labour in a hot environment, often resulting from an imbalance of electrolytes in the body.
 - **Symptoms:** Headaches, dizziness, vomiting or upset stomach

- **First Aid Treatment:** Remove patient from hot environment, rest/massage cramping muscles, and replace fluids by water.
- **Heat Exhaustion:** This is a result of the combination of excessive heat and dehydration. Untreated, heat exhaustion can lead to heat stroke.
 - **Symptoms:** Moist skin, rapid weak pulse, feeling tired or weak, and muscle cramps
 - **First Aid Treatment:** Have the person rest in a cool place, give cool water, remove excess clothing, apply cool wet cloths and fan.
- **Heat Stroke:** This is the most serious disorder associated with heat stress. It occurs when the body's temperature regulation fails and body temperature rises to critical levels. It is a medical emergency that could lead to death.
 - **Symptoms:** *Unable to sweat*, hot dry red skin, rapid and weak pulse, mental confusion, unconsciousness, seizures, and convulsions
 - **First Aid Treatment:** *THIS IS A LIFE THREATENING EMERGENCY! SEEK MEDICAL ATTENTION IMMEDIATELY!* Cool body by any means available – cold packs, wrap in sheet and soak with water, Monitor ABC's (airway, breathing, circulation), be prepared to perform CPR.



Did You Know? The highest temperature ever recorded in Winnipeg was on July 25, 2007 when it reached 48°C with the humidex. Even more astonishing is on the same day just 64 KM southwest of Winnipeg in Carmen the temperature reached 53°C with the humidex, which stands as a Canadian record.

Sweat evaporates more rapidly in dry weather, cooling the body more efficiently than in humid weather. When working in humid conditions, the core temperature rises more rapidly. This is why weather forecasts add a humidity heat factor to represent how you will actually feel outdoors.

There are two humidex guidelines to determine the appropriate actions required:

Humidex 1 - refers to un-acclimatized workers doing moderate work, and ranges indicate the need for general heat stress controls.

- Humidex 1 **general** controls - include providing annual heat stress training, encouraging adequate fluid replacement, permitting self-limitation of exposure, encouraging employees to watch for symptoms in co-workers, and adjusting expectations for workers coming back to work after an absence.

Humidex 2 - refers to acclimatized workers doing moderate work, and ranges indicate the need for specific controls.

- Humidex 2 **specific** controls - include (in addition to general controls) engineering controls to reduce physical job demands, shielding of radiant heat, increased air movement, reduction of heat and moisture emissions at the source, adjusting exposure times to allow sufficient recovery, and personal body-cooling equipment.

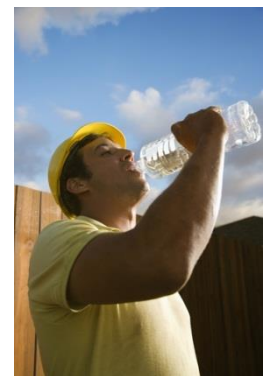
HUMIDEX TABLE		
HUMIDEX 1	ACTION RECOMMENDED	HUMIDEX 2
30 -37	Warn for symptoms and extra water	36 - 42
38 - 39	Work with 15 minutes / hour relief	43 - 44
40 - 41	Work with 30 minutes / hour relief	45 - 46
42 - 44	Work with 45 minutes / hour relief	47 – 49
45+	Hazardous to continue physical activity	50+



Did You Know? Heat stress is progressive; therefore it is important to recognize the signs and symptoms before they occur.

Ways you can reduce the risk of heat stress.

- Work in a cooler workspace
 - Using ventilation or air-conditioning to reduce temperatures and humidity in work and rest areas
 - Work in shaded areas and if possible and away or shielded from heat sources
- Reduce your exposure to heat stress
 - Monitor yourself and co-workers for signs and symptoms of heat illness
 - Acclimatization – begin by exposing yourself in short durations at the beginning of the season and then slowly increasing your exposure and duration; this will build up tolerance
 - Use work-rest cycles, with breaks and rests taking part in cool, shaded areas that are well ventilated
 - Take more frequent rest breaks; take longer rest breaks
 - Slow the work pace (i.e. work self-pacing)
 - Minimize hard, physical labour for the coolest parts of the day
 - Drink plenty of water throughout the work day, and before exposure; Water or sport drinks are best; Avoid caffeinated beverages and alcohol
 - If possible rotate hot work duties with co-workers; Under extreme conditions, work must be stopped
- Adjust your clothing according to the environment
 - Wear lightweight, light-coloured, loose fitting clothing
 - Dress in layers so clothing can be removed as the temperature rises
 - Wear a hat and sunscreen when working in direct sunlight
 - Wear heat reflective clothing if working near heat sources



Discuss your company policy or rules in working in hot environments.

STATE: If you have any questions regarding the topics discussed today, please let me know. If I don't have an answer for you now, I will direct your question to another individual, if you are comfortable with that. We want you to be safe and feel safe while at work!

Facilitator, remember to:

1. Ask for the commitment of your employees,
2. Answer all questions,
3. Thank them for their time and
4. Document that this safety talk occurred.

RECORD OF SAFETY TALK	
Working In Heat	
Company Name:	Work Location Dept.:
Talk Given by:	Date / Time:

Results of inspection, demonstration or other activity or suggestions during talk:

List of All Employees Who Attended the Safety Talk:	
Name (PRINT)	<i>Signature</i>
1.	
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Signed: _____

Position Held: _____