

TEST ANSWERS: HEAT STRESS

The *BSO Plus Safety Topic* is a review designed from the BSO Plus agenda. This safety topic is your way to stay current on the safety information over the 3 years between BSO Plus and BSR.

1. Match the physical condition caused by heat stress to its symptoms.

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| a) Heat Rash | <u> b </u> | Painful cramps in the most worked muscles, like the arms, legs, or stomach, which can occur suddenly or later at home. |
| b) Heat Cramps | <u> a </u> | Red bumpy rash with severe itching. |
| c) Heat Exhaustion | <u> d </u> | Body temperature over 41°C plus any one of the following: weak, confused or acting strangely; hot, dry, red skin; fast pulse; headache or dizziness. Possible fainting or convulsions in late stages. |
| d) Heat Stroke | <u> c </u> | Heavy sweating; cool moist skin; body temperature over 38 °C; weak pulse; nausea and vomiting; very thirsty; panting or breathing rapidly. |

RATIONALE: The physical conditions caused by heat stress affect the body's ability to cool itself. These conditions can range from minor disorders to severe disorders, each with their own set of causes, symptoms and treatment. It is important to be aware of the symptoms of heat stress so that you can seek immediate treatment when necessary.

2. In Ontario, heat stress is usually of greatest concern at the end of the summer season when temperatures are the highest.

- a. True
- b. False

RATIONALE: Workers who are exposed to either extreme heat or extreme cold in their work environments are at risk for serious occupational illnesses and injuries. Individual susceptibility to heat-related illness can vary widely between workers. In Ontario, heat stress is usually of greatest concern at the beginning of the summer season when people haven't yet adjusted to the heat.

3. Heat stress can be caused by:

- a. Higher temperatures and humidity
- b. Performing heavy physical work in warm environments
- c. Working alongside hot equipment
- d. Wearing certain types of protective clothing
- e. All of the above

RATIONALE: Work environments in the Chemical Valley have PPE requirements that include FRC, working alongside hot equipment, and working in areas where there is no breeze at all. These factors can also contribute to a person being exposed to excessive heat.

4. **The hazards associated with exposure to heat and humidity can be compounded by other factors, such as performing heavy physical work, wearing certain types of PPE, and taking certain medications.**

a. True

b. False

RATIONALE: Anyone can suffer from heat stress, even the young and the fit. In Ontario, heat stress is usually of greatest concern at the beginning of the summer season when people haven't yet adjusted to the heat. Follow safe work practices, including staying hydrated and taking appropriate rest breaks, to keep yourself safe and healthy.

5. **The Safety Partnership's Heat Stress guidelines recommend the following controls for heat stress: (Circle all that apply)**

a. Issuing alerts

b. Reducing physical activity

c. Drinking water only when thirsty

d. Stopping non-essential work

RATIONALE: The Safety Partnership released their Heat Stress Guidelines on July 30th, 2013. They updated the guideline on April 20, 2017. These guidelines list heat stress controls for various humidex ranges & working conditions for un-acclimatized workers. Following a heat stress guideline an important measure in preventing heat stress. Different companies may use different guidelines, but all of them should have a policy in place.