

news & notes

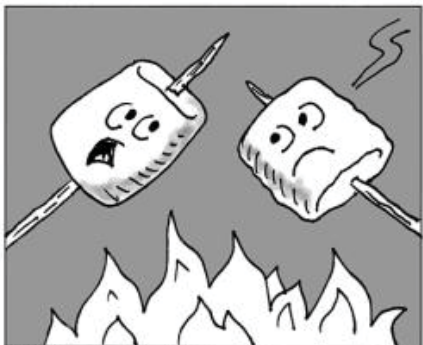
INDOOR HEAT STRESS

A Pennsylvania plastic products maker was recently cited for violating the Occupational Safety and Health Administration's (OSHA) General Duty Clause (GDC), Section 5(a)(1) of the OSH Act, for exposing employees to heat stress conditions. The GDC requires that covered employers provide "employment and a place of employment which are free from recognized hazards that are causing or are likely to cause death or serious physical harm to his employees."

In this case, OSHA found that during their 12-hour work shift, machine operators were exposed to excessive heat while operating rotational molding ovens operating at 600 degrees Fahrenheit.

OSHA Area Director Theresa A. Naim commented, "Heat stress is not only an outdoor health hazard. Employees working indoors in elevated temperatures can also demonstrate the symptoms of heat-related illness."

OSHA emphasizes that while thousands of workers become sick each year from occupational heat exposure, the illnesses and deaths that can result are preventable.



"Uh-oh. Classic heat exposure symptoms. We're puffing up, browning at the edges, and we smell delicious."



December 2015

The heat is on! *Stay cool indoors*

If you thought fall's cooler temperatures would eliminate the risk for heat exposure, think again. On-the-job heat exposure is a risk during operations involving high air temperatures, radiant heat sources, high humidity, direct physical contact with hot objects, or strenuous physical activities. Affected workplaces may include foundries, brick-firing and ceramic plants, glass products facilities, rubber products plants, electric utilities, commercial kitchens, laundries, chemical plants, and smelters.

When working in a hot environment, the body must get rid of excess heat to maintain a stable internal temperature. This is done mainly through sweating and through circulating blood to the skin. Cooling becomes more difficult when the air temperature is close to or warmer than normal body temperature. Blood circulated to the skin cannot lose its heat, and sweating becomes the main way the body cools off. But sweating works only if the humidity level is low enough to allow evaporation.

Heat that cannot be eliminated is stored, which causes the body's core temperature to rise and the heart rate to increase. This can lead to heat illness, with effects ranging from heat rash and cramps to heat exhaustion, heatstroke, or death.

Symptoms of heat exhaustion include headache, dizziness, or fainting; weakness and wet skin; irritability or confusion; and thirst, nausea, or vomiting. Symptoms of heatstroke, a potentially fatal condition that requires immediate medical attention, include confusion or inability to think clearly, passing out or having seizures, and failure to sweat.

Workers toiling in indoor environments are at risk, especially those doing heavy work tasks or using bulky or nonbreathable protective clothing and equipment. Some may be at higher risk if they have not built up a tolerance to hot conditions or if they have certain health conditions.

The following measures can prevent heat-related illness:

- **Engineering controls** like air-conditioning and ventilation that make the work environment cooler;
- **Work practices** such as work/rest cycles, making sure workers drink water often, and providing an opportunity to build up a tolerance to working in the heat; *and*
- **Employee and supervisor training** that covers the symptoms of heat-related illness and makes sure they know what to do in case of an emergency.

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SICK TO DEATH

John Howard, PhD, director of the National Institute for Occupational Safety and Health, says there is an enormous burden of occupational illnesses on the workplace and society. "For every injury that results in a fatality, there are 10 work-related illness fatalities."

Figuring out the cause of an injury is easy—the cause is right there. It's not as straightforward when it comes to occupational illness fatalities; often they have multiple causes, not to mention that occupational illnesses are a higher cost than occupational injuries.

It is estimated that up to 5 percent of cancers are caused by workplace exposures. However, data availability is limited, as these cases are often underreported or not reported at all because most are not recognized by physicians, says Howard.

Peg Seminario, AFL-CIO, director of safety and health, cites data that occupational illnesses account for approximately 49,000 deaths annually, making work-related disease the eighth leading cause of death in the United States. She also says there was greater focus on occupational diseases in the 1970s and 80s than there has been in more than 20 years.



Indoor heat stress quiz

Test what you know

Select the appropriate answers.

1. The Occupational Safety and Health Administration's (OSHA) General Duty Clause can be used to cite an employer for extreme indoor heat stress conditions. **True or False**
2. On-the-job heat exposure is a risk during operations involving which of the following?
 - a. Radiant heat sources
 - b. Low humidity
 - c. Low-impact physical activities
 - d. All of these
3. Workplaces that may have high indoor heat levels include which of the following?
 - a. Foundries
 - b. Brick-firing and ceramic plants
 - c. Glass products facilities
 - d. All of these
4. When working in a hot environment, the body must hold onto excess heat to maintain a stable internal temperature. **True or False**
5. Which of the following measures can prevent heat-related illness?
 - a. Energetic controls
 - b. Work parties
 - c. Training
 - d. All of these

ANSWERS

1. True. 2. a. Radiant heat sources. 3. d. All of these. 4. False. When working in a hot environment, the body must get rid of excess heat to maintain a stable internal temperature. 5. c. Training.

Holiday Stress

How to make your holidays stress-free

December is **National Stress-Free Holidays Month** with good reason. Despite the joy of this time, people still find ways to stress out.

Money issues, for example, are the leading cause of holiday stress, according to a poll by the American Psychological Association (APA), which found that 61 percent of Americans cited lack of cash as the chief reason for their holiday stress. Other stressors included the pressure of selecting and buying gifts, lack of time, and credit card debt. The survey also found that over one-third of Americans turn to overeating or drinking to cope.

To help you survive this holiday season, APA Executive Director for Practice, Russ Newman, Ph.D., offers this advice:

- **Focus on friends and family.** Make the holidays a time to reconnect.
- **Accept help** from people who care about you and can relieve your stress.
- **Set realistic goals** instead of overwhelming yourself by trying to do too much.
- **Keep things in perspective.** Remember how short the holiday season is.
- **Deal with whatever is causing you stress** instead of letting it get to you.
- **Take care of yourself.** Pay attention to your needs and feelings. Keep time in your holiday schedule to do the regular things you enjoy and find relaxing.