

# Heat kills

A welder was hired to help build an expansion to a manufacturing facility in Kentucky. His second day on the job, rather than weld, he was asked to cut and build wooden forms for concrete footings.

The workday began at 7 a.m. and the temperature peaked at around 90 degrees with a dew point at a muggy 69 degrees. The welder appeared to be dressed for welding rather than the more strenuous work of building concrete forms. He was wearing heavy jeans and a long-sleeve heavy shirt over a T-shirt. He also wore a hardhat and tool pouch and worked with a hammer, circular saw and sledgehammer throughout the day.

Water was available to the crew, as was an air-conditioned trailer if they felt overheated. The crew broke for lunch between noon and 12:30. Co-workers noted that the welder drank water but did not eat.

At 5 p.m. work ceased. A job foreman offered the welder a ride back to his car and dropped him off at the far end of the site. A half-hour later another employee noticed the welder lying on the ground in the parking lot. He informed his supervisor and called for an ambulance.

Emergency crews cut off the welder's clothes, poured cool water over his torso and applied cold compresses to his face and neck. An ambulance took the welder to the hospital where medical personnel measured his internal temperature at 108 degrees. He died the following day due to heat stroke.



Illustration by Don Lomax

## The invisible killer

Unlike cuts and blunt force injuries, heat stress, including cramps, heat stroke and heat exhaustion can be hard to detect. There are two contributors to heat illness. The air temperature and humidity are important, but the amount of physical exertion – heat the body generates internally from hard work – is also key.

Heat stroke is often fatal. Nationwide 30 workers died and 4,120 fell ill from heat related causes in 2012. Symptoms to look for include when the person:

- Stops sweating
- Becomes dizzy, disoriented or confused
- Exhibits rapid pulse rate, nausea or headache
- Has internal body temperature of 103 degrees or higher
- Hand or limb shaking
- Fainting

If you suspect a coworker is suffering from heat related problems:

- Call the supervisor.
- Move the person to a shaded or air conditioned spot.
- Stay with the person until help arrives.
- Mist the person with water and fan them.
- Provide cool drinking water.

- If the person feels confused, vomits or faints this may indicate heat stroke. Call 911 immediately.

## Precautions and recommendations

- Start the work day early, at first light if possible and cease work at 2:30 or 3 pm, before the heat peaks.
- Schedule tasks requiring heavy exertion for the cool part of the day.
- Train all employees to recognize the symptoms of heat illnesses. Establish a buddy system so that every worker checks one other worker regularly during the day for heat illness symptoms.
- On hot days, provide workers plenty of breaks, plenty of cool water and hydrating fluids
- Ensure that employees are properly clothed with loose-fitting, lightweight cotton shirts, pants or shorts and wide brimmed hats where appropriate.

For more information, check out the Kentucky FACE Report #03KY053 at: [www.cdc.gov/niosh/face/stateface/ky/03ky053.html](http://www.cdc.gov/niosh/face/stateface/ky/03ky053.html)

Also, for free training information and a guide to understanding the heat index, visit OSHA's website: [www.osha.gov/SLTC/heatstress](http://www.osha.gov/SLTC/heatstress)



Date of safety talk: \_\_\_\_\_ Leader: \_\_\_\_\_  
 Attending: \_\_\_\_\_