

Heat Illness Quiz

Circle the correct answer(s)

1. What is the proper technical term for the heat load to which a worker is exposed?
 - A. Heat pressure
 - B. Heat strain
 - C. Heat stress
 - D. Heat tension
2. What are possible medical consequences from excessive levels of heat at work? (Choose all correct answers.)
 - A. Rashes
 - B. Muscle cramps
 - C. Fatigue
 - D. Fainting
 - E. Death
 - F. All of the above
3. _____ is brief fainting or near-fainting due to heat stress. It is caused by decreased blood flow to the brain. Blood pools in the legs and skin due to heat exposure combined with prolonged sitting or standing. First aid involves having the worker lie on their back in a cool environment and drink water.
 - A. Heat exhaustion
 - B. Heat strain
 - C. Heat stroke
 - D. Heat syncope
 - E. Heat trauma
4. _____ is life-threatening medical condition due to heat stress where the body temperature rises above 104°F. Symptoms include lack of perspiration, chills, euphoria, convulsions, and unconsciousness. Immediate, aggressive cooling must be undertaken to save the worker's life.
 - A. Heat exhaustion
 - B. Heat strain
 - C. Heat stroke
 - D. Heat syncope
5. What environmental factors affect the worker's level of heat stress? (Choose all correct answers.)
 - A. Air temperature
 - B. Relative humidity
 - C. Air speed
 - D. Direct sunlight
 - E. Barometric pressure

6. True or False. The main way the body loses heat is through evaporative cooling of moisture on the skin surface.
7. True or False. High humidity in the air increases heat stress by interfering with evaporative cooling of the skin. Moisture on the skin evaporates much more quickly when the air is dry.
8. True or False. Increased air movement in the workplace (for example, from fans or the wind) can prevent heat stress because it increases evaporative cooling of the skin.
9. True or False. The risk of heat stress from working indoors at 90°F is equal to the risk working outdoors in direct sunlight at 90°F.
10. Per CAL/OSHA, how long is required to closely observe an employee who has been newly assigned to a high heat area?
- A. 3 Hours
 - B. 8 Hours
 - C. 2 Shifts
 - D. 5 Work Days
 - E. 1 Month
 - F. 14 Days
11. In California, the most recent heat-related fatality on the job occurred in what occupation?
- A. Picking strawberries at a farm
 - B. Welding steel at a construction site
 - C. Pouring molten metal in a foundry
 - D. Washing dishes in a restaurant
 - E. Cutting lawns in a residential area
12. True or False. In the fatality above, the worker experienced early warning signs of illness—he was lightheaded and short of breath—but he ignored them and continued to work.
13. Which of the following can be signs of impending heat-related illness? (Choose all correct answers.)
- A. Visible sweating
 - B. Sweat-soaked clothing
 - C. Nausea
 - D. Elevated heart rate
 - E. Agitation
 - F. All of the above

14. What measures can prevent heat-related illness? (Choose all correct answers.)
- A. Light clothing
 - B. Scheduled rest breaks in shaded areas
 - C. Drinking water regularly
 - D. Training staff on the symptoms of heat-related illness
 - E. Written procedures to prevent illness
 - F. All of the above
15. True or False. The correct temperature at which to activate the Heat Illness Prevention Program is 85°F?
16. True or False. Employees should not be encouraged to self-limit work due to heat because it promotes laziness.
17. True or False. Employees have no role in preventing heat-related illness among their coworkers.
18. True or False. Under CAL/OSHA, employers are legally obligated to protect their employees from heat-related illness.
19. True or False. Under CAL/OSHA, employers are obligated to provide their employees with air conditioning during the summer.
20. True or False. Under California law, employers are required to provide their employees with drinking water.

QUIZ ANSWERS:

1. C – Heat stress. High levels of heat stress can cause heat-related illness.
2. F – All of the above. Because fatalities can occur, heat stress must be taken very seriously.
3. D – Syncope means fainting.
4. C – Heat stroke.
5. A, B, C, and D. Barometric pressure does not contribute to heat stress.
6. True.
7. True.
8. True. One exception: If the air temperature is above the normal body temperature (about 98°F), the increased air movement will increase the convective heat load on the body.
9. False. The sunlight on the worker adds an additional thermal burden.
10. F – CAL/OSHA Acclimatization Requirements - An employee who has been newly assigned to a high heat area shall be closely observed by a supervisor or designee for the first 14 days of the employee's employment.
11. E.
12. True.
13. F – All of the above. Moisture on the skin surface dissipates body heat and is good. However, when liquid water begins to collect on the skin surface, it indicates that the body's sweat mechanism cannot keep up with the demand to dissipate heat from the body, and the worker's body temperature is beginning to rise.
14. F – All of the above.
15. False. Workers can experience heat-related illness as low as 80°F, especially if the work involves heavy physical activity, there are few rest breaks, humidity levels are high, the work is outdoors during daylight or is at a hot work process (for example, furnace, hot machine), and/or the worker has personal characteristics such as obesity that predispose them to heat-related illness. In the California fatality in question 11, the maximum outdoor temperature was only 81°F.
16. False. Self-determination is an important facet in preventing heat-related disorders. Workers should terminate their exposure upon the first sign of heat-related illness or extreme physical discomfort, and they should report their condition to a supervisor.
17. False. A coworker can serve as a role model by taking scheduled breaks, drinking water, and self-reporting symptoms. Coworkers should be observing their fellow workers for unusual behaviors that are the early signs of illness.
18. True. California employers have many different responsibilities under the California Occupational Safety and Health Act of 1973 and Title 8 of the California Code of Regulations, including establish, implement and maintain an [Injury and Illness Prevention Program](#) and update it periodically to keep employees safe
19. False. There is no such requirement. The law does not require that the work environment be comfortable. For example, employees could be required to work outdoors midday in the heat

during the summer. The law does require employers to protect employees from death or serious physical harm.

20. True. The requirements can be found in Part §3395 Heat Illness Prevention, Subchapter 7, Sections 1524, 3363, and 3457.