Heat Stress

Exposure to extreme heat can cause heat rash, cramps, dizziness, fainting, exhaustion, heat stroke and even death. Outside workers need to be aware of the risks and know how to protect themselves.

Heat Rash

Commonly known as “prickly heat,” heat rash is a skin irritation caused by excessive sweating during hot, humid weather. The sweat ducts become blocked and sweat glands inflamed. This leads to developing red clusters of pimples or blisters. An extremely uncomfortable condition, heat rash can be prevented by working in cooler, less humid environments, taking periodic breaks and practicing good personal hygiene.

Heat Cramps

Heat cramps are painful, intermittent muscle spasms that occur during or after hard physical work in hot conditions. The spasms result from excessive salt loss through sweating, without adequate replacement. Drinking water alone is not necessarily enough to prevent spasms. Salted liquids and salted food are more effective. Workers with heart problems or on a low sodium/salt diet should notify their employer and/or supervisor of their medical condition. Affected workers should also contact their physician.

Heat Syncope

Heat syncope is a fainting episode, dizziness or light-headedness that usually occurs as a result of prolonged standing or suddenly rising from a sitting or lying position. Lack of acclimatization and dehydration may also contribute. Workers who experience heat syncope should sit or lie down in a cool place and slowly drink water.

Heat Stroke

Heat stroke is the most serious illness associated with work in hot environments. It occurs when the body’s heat regulation mechanisms break down. Characteristics of heat stroke are high body temperature (105 degrees or more), little or no sweating and hot, dry flushed skin. In addition, workers suffering from heat stroke may become delirious, confused, convulsive or comatose. Of ultimate concern, heat stroke may be fatal! Heat stroke victims need urgent medical aid to begin lowering their body temperature. Move them to a cool area, soak their clothes with water and fan their bodies. If possible, immerse them in ice and wrap in cold, wet sheets. If an ambulance is not already en route, victims should be taken to the nearest hospital or clinic for additional treatment. Severe heat stroke can result in brain damage, early recognition and treatment are essential.

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Controlling the Hazard

Heat stress and the resulting health hazards depend on how much heat the body produces while performing a job. Reducing the physical energy required or shortening the time spent in high heat can reduce the risk. Adequate rest breaks are essential. Breaks allow the body to rid itself of excess heat, reduce the production of internal body heat and improve blood circulation to the skin.

As much as possible, the most strenuous work should be performed during the coolest times of day. In strong sunlight, loose-fitting clothes that shade the skin but allow air to circulate are necessary. In low humidity/strong sunlight, less clothing is needed but workers must take care to avoid sunburn.

Workers should be drinking enough water that they don’t become thirsty. Replacement fluids should be 40 degrees Fahrenheit, or cool enough to be acceptable to workers’ tastes. Drinks containing alcohol, caffeine or large amounts of sugar should be avoided.