



Beating The Heat During the Warmer Summer Months

Information/ article provided by www.NIOSH.gov

From iron workers to construction workers, Americans work in a wide variety of hot or hot and humid environments. Being uncomfortable is not the major problem with working in high temperatures and humidities. Workers who are suddenly exposed to working in a hot environment face additional and generally avoidable hazards to their safety and health. Excessive exposure to a hot work environment can bring about a variety of heat-induced disorders:

- Heat stroke
- Heat exhaustion
- Heat cramps
- Transient heat fatigue
- Fainting
- Heat rash

Certain safety problems are common to hot environments. Heat tends to promote accidents due to the slipperiness of sweaty palms, dizziness, or the fogging of safety glasses. Wherever there exists molten metal hot surfaces, steam, etc., the possibility of burns from accidental contact also exists.

Aside from these obvious dangers, the frequency of accidents, in general appears to be higher in hot environments than in more moderate environmental conditions. One reason is that working in a hot environment lowers the mental alertness and physical performance of an individual. Increased body temperature and physical discomfort promote irritability, anger, and other emotional states which sometimes cause workers to overlook safety procedures or to divert attention from hazardous tasks.

Many industries have attempted to reduce the hazards of heat stress by introducing engineering controls, training workers in the recognition and prevention of heat stress, and implementing work-rest cycles.

Number and Duration of Exposures

Workers employed outdoors are especially subject to weather changes. A hot spell or a rise in humidity can create overly stressful conditions. The following practices can help to reduce heat stress:

Rest Areas

Providing cool rest areas in hot work environments considerably reduces the stress of working in those environments. A rest area with a temperature near 76 degrees appears to be adequate and may even feel chilly to a hot, sweating worker, until acclimated to the cooler environment. The rest area should be as close to the workplace as possible. Shorter but frequent work-rest cycles are the greatest benefit to the worker.

Drinking Water

In the course of a day's work in the heat, a worker may produce as much as 2 to 3 gallons of sweat. Most workers exposed to hot conditions drink less fluids than needed because of an insufficient thirst drive. A worker, therefore, should not depend on thirst to signal when and how much to drink. Instead, the worker should drink 5 to 7 ounces of fluids every 15 to 20 minutes to replenish the necessary fluids in the body.

Protective Clothing

Clothing inhibits the transfer of heat between the body and the surrounding environment. Therefore, in hot jobs where the air temperature is lower than skin temperature, wearing clothing reduces the body's ability to lose heat into the air.

When air temperature is higher than skin temperature, clothing helps to prevent the transfer of heat from the air to the body. However, this advantage may be nullified if the clothes interfere with the evaporation of sweat.

In dry climates, adequate evaporation of sweat is seldom a problem. In a dry work environment with very high air temperatures, protective clothing could be an advantage to the worker. The proper type of clothing depends on the specific circumstance. Certain work in hot environments may require insulated gloves, insulated suits, reflective clothing, or infrared reflecting face shields. For extremely hot conditions, thermally conditioned clothing is available.

ORTHOPEDIC AND SPORTS THERAPY INSTITUTE, INC.

Belvidere Physical Therapy • Marengo Physical Therapy • McHenry County Physical Therapy • Ogle County Physical Therapy • Roscoe Physical Therapy

For more information regarding OSTI's Industrial Rehabilitation Services and/or the WorkSTEPS® Functional Employment Testing Program, contact Meghan Wilinski at mwilinski@ostipt.com or directly at 815.243.1240. Visit us online at www.OSTIPT.com.