

TOOLBOX TALK #52

UNDERSTANDING THE DANGERS OF HEAT STRESS

In many parts of the country, the weather is already hot and humid. Workers in hot environments can be at risk for heat stress, which can lead to serious illness. Older workers (workers with existing health conditions such as high blood pressure, diabetes and obesity) and those working strenuously or in direct sunlight are at greatest risk. Nobody can control the weather, but heat stress is preventable if employers and workers take proper precautions.

Types of heat stress

- **Heat stroke** is the most serious condition related to heat and should be considered a medical emergency. When the body becomes unable to control its temperature, the mechanism that controls sweating fails, the body is unable to cool down and the core temperature quickly rises.
- **Heat exhaustion** occurs when the body loses too much water and salt through excessive sweating. It usually is caused by exposure to high temperatures, especially with high humidity, and strenuous activities.
- **Heat syncope** is a fainting episode or a dizziness that can occur from prolonged standing or a sudden rise from sitting or lying down, Blood vessels in the body dilate to radiate heat, which lowers blood pressure.
- **Heat cramps** are painful, involuntary muscle spasms that usually affect workers who sweat a lot during strenuous activity. This sweating depletes the body's electrolyte and moisture levels, which contribute to painful cramps. Heat cramps can be a symptom of heat exhaustion.
- **Heat rash** is a skin irritation caused by excessive sweating in hot, humid weather. It is also known as "prickly heat". It occurs when skin ducts are blocked and perspiration is trapped beneath the skin.



Employers should follow these tips to help prevent heat stress among workers:

- Schedule routine maintenance and repair for cooler months
- Schedule jobs in the morning or evening, when temperatures are cooler
- Acclimatize workers by exposing them for progressively longer periods to hot work environments
- Reduce physical demands of workers
- Use relief workers or assign extra workers for physically demanding jobs
- Provide cold water or non-alcoholic beverages to workers
- Provide rest periods and water breaks in cool areas
- Monitor workers who are at risk for heat stress
- Provide heat stress training that includes information about risk, prevention, symptoms, treatment and personal protective equipment

Workers should:

- Wear light-colored, loose-fitting, breathable clothing such as cotton and avoid synthetic fabrics. Be aware that protective clothing or PPE may increase the risk of heat stress. This does not mean workers should avoid proper PPE.
- Avoid exposure to extreme heat, sun exposure and high humidity when possible.
- Gradually build up to heavy work, and schedule heavy work during the coolest parts of the day.
- Take more breaks in the shade or a cool area
- Drink water frequently, about one cup every 15 to 20 minutes. Avoid alcohol and drinks with large amounts of caffeine or sugar. Clearer-colored urine will indicate appropriate hydration.
- Monitor your physical condition and that of coworkers