## **HEAT STRESS - HOW TO RECOGNIZE THE SIGNS**

A worker on your crew complains that he is slightly dizzy. He has been working in the hot sun all day, is tired, irritable, and his judgement is somewhat impaired.

Is he suffering from heat stroke?

Your gut feeling is "no" - and you're probably right that this isn't yet a life-threatening emergency. But the symptoms do indicate the early stages of heat illness, which can result in very serious problems if left untreated.

Heat-related illnesses are common among landscape workers, who often spend long hours working in the hot sun.

Recognizing the early signs of heat illness and knowing which workers are at special risk can help you take steps to prevent serious illness and even death later on.

## Who is most at risk?

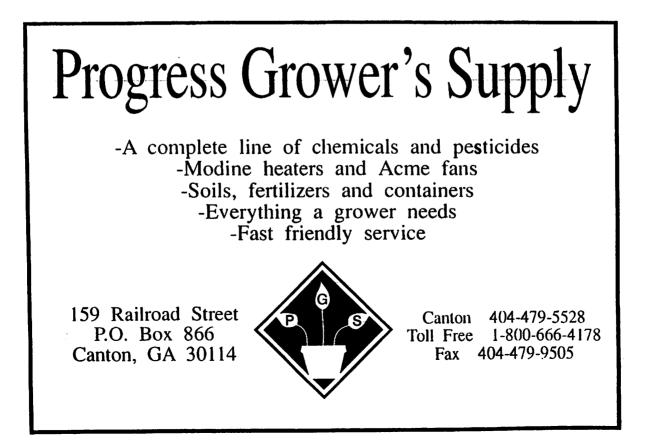
Although heat stress can affect anyone, certain people are particularly at risk. It's a good idea to have a doctor evaluate your employees' fitness to work in the heat. People with these characteristics are often more sensitive to heat than others:

\*very small body size
\*poor nutrition
\*overweight
\*poor physical condition
\*lack of gradual adjustment to working in the heat
\*older (over age 40)
\*past history of early heat illness, heat rash, heat
exhaustion or heat stroke
\*high blood pressure and/or heart disease
\*diabetes
\*skin disease
\*liver, kidney or lung problems

*Note*: Workers who were recently ill or injured and those who had recent immunizations are also at high risk for heat illness.

This information and the following table are brought to you by the Safety Committee of the MALTA-SIF.

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## Heat Illnesses and First Aid Measures

Illness	Signs and Symptoms	Cause and Problem	Treatment
Early heat illness	Mild dizziness, fatigue, or irritability; decreased concentration; impaired judgment	Reduced flow of blood to the brain May lead to heat exhaustion or heat stroke	Loosen or remove clothing Rest in shade 30 minutes or more Drink water
Heat rash ("Prickly heat")	Tiny, blister-like red spots on the skin; pricking sensations Commonly found on clothed areas of the body	Sweat glands become plugged and inflamed from unrelieved exposure of skin to heat, humidity; and sweat	Clean skin, apply mild drying lotion or cornstarch Wear loose clothing Preventable by regular bathing and drying the skin and by periodic relief from humid conditions of work See physician if rash persists
Heat cramps	Painful spasms of leg, arm, or abdominal muscles Heavy sweating, thirst Occur during or after hard work	Loss of body salt in sweat May be totally disabling	Loosen clothing Drink <i>lightly</i> salted beverages Massage Rest
Heat exhaustion	Fatigue, headache, dizziness, muscle weakness, loss of concentration, fainting, collapse Profuse sweating; pale, moist, cool skin; excessive thirst, dry mouth; dark yellow urine Fast pulse, if conscious Low or normal oral temperature, rectal temperature usually 99.5-101.3°F May also have heat cramps, nausea, urge to defecate, rapid breathing, chills, tingling of the hands or feet, confusion, giddiness, slurred speech, irritability	acclimatization; reduction of blood in circulation, strain on circulatory system, reduced flow of blood to the brain Worker may resist treatment May lead to heat stroke	Remove to cooler, shaded area as quickly as possible Rest lying down If conscious, have worker drink as much water as possible <i>Do not give salt</i> If unconscious or if heat stroke is also suspected, treat for heat stroke until proven otherwise Loosen or remove clothing Splash cold water on body Massage legs and arms If worker collapsed, get evaluation by physician, nurse, or EMT before worker leaves for the day; shower in cold water; rest for balance of day and overnight
Heat stroke IMMEDIATE TREATMENT REQUIRED	LIFE-THREATENING MEDICAL EMERGENCY Often occurs suddenly Headache, dizziness, confusion, irrational behavior, coma Sweating may slow down or stop Fast pulse, if conscious Rapid breathing Rectal temperature 104°F and over May also have convulsions, nausea, incoherent speech, very aggressive behavior	Sustained exertion in heat, lack of acclimatization, dehydration, reduced flow of blood to the brain and other vital organs, body's temperature-regulating system fails, body cannot cool itself Risk of damage to vital organs, including the heart, brain, central nervous system, liver, and kidney Worker may resist treatment BRAIN DAMAGE AND DEATH CAN RESULT EVEN WITH PROMPT TREATMENT	Move to a shaded area Remove outer clothing/shoes Immediately wrap in wet sheet, pour water on and fan vigorously, avoid over-cooling Treat shock if present, once temperature is lowered If worker vomits, make sure all vomit is cleared from mouth and nose to prevent choking on vomit Transport to nearest medical treatment facility at once While awaiting or during transport, elevate legs, continue pouring on water and fanning If conscious, have worker drink as much water as possible <i>Do not give salt</i>