

# Heat Stress Safety Message

## Heat Exposure

During the summer many people like to spend time outside in the sun for work or play. But overexposure to the heat can cause heat stroke, heat exhaustion, heat cramps or heat rash.

There are four environmental factors that affect the amount of stress in the heat:

1. Temperature
2. Humidity
3. Radiant heat (such as from the sun)
4. Wind speed

More importantly are the personal characteristics that affect our response to heat stress:

- Age
- Weight
- Fitness
- Medical condition
- Acclimatization to heat

When the body can't dispose of excess heat, it stores it. When this happens the core temperature and the heart rate will increase. As these increases continue, the individual begins to lose concentration, and may become irritable or sick and often loses the desire to drink. The next stage is most often fainting and death is possible.

The major heat stress disorders are:

- Heat stroke, a serious condition that is life threatening and requires emergency intervention.
- Heat exhaustion, another serious condition due to an imbalance of fluids and electrolytes, this also typically requires medical intervention.
- Heat cramps, painful spasms of the muscles, medical intervention may be required.
- Heat rash, also known as "prickly heat" occurs in environments where the sweat is not easily removed (ex. hot and humid environments). Resting in a cool place and allowing the skin to dry can prevent heat rash.

These disorders can be prevented by:

- Taking frequent breaks while working or playing in the heat
- Work or play in the presence of a breeze or cooling fan
- Drink plenty of water prior to the activity and also during periods of heavy activity (every 15 minutes and as much as a quart/hour)
- Schedule heavy work or play during the cooler periods of the day
- Wear a wide-brimmed hat to keep your head and face cool (baseball caps provide little protection)
- Wear comfortable, light-colored, loose-fitting clothing

- Adjust gradually to working in the heat over a period of 10-20 days
- Pay particular attention to yourself and others (especially young children, chronically ill and the elderly), watching for minor changes in mental status. Anyone that may be suffering from any of the possible disorders should be moved to a cool environment and offered sips of water only if conscious. If the disorder is believed to be potentially serious, then attention from emergency medical personnel should be obtained.

Please contact Captain Chuck Owens of the Greenville Fire & Rescue Department at 252-329-4414 for additional information.