

Appendix J

Dehydration and Heat Stress Prevention

Dehydration

The following tips may help you prevent dehydration.

- Drink plenty of water before, while, and after you are active. This is very important when it is hot out and when you do intense exertion. You can drink water or rehydration drinks.
- Take a container of water or sports drink with you, and try to drink at least every 15 to 20 minutes.
- Use a sports drink if you will be active for longer than one hour.
- Do not drink coffee, soft drinks, or other drinks that contain caffeine. They increase urine output and make you dehydrate faster.
- Avoid high-protein diets. If you are on a high-protein diet, make sure that you drink at least 8 to 12 glasses of water each day.
- Avoid alcohol, including beer and wine. They increase dehydration.
- Do not take salt tablets. Most people get plenty of salt in their diets. Use a sports drink if you are worried about replacing electrolytes lost through sweating.
- Stop working if you feel dizzy, lightheaded, or very tired.
- Wear one layer of lightweight, light-colored clothing when you are working or working outdoors. Change into dry clothing as soon as you can if your clothes get soaked with sweat.

Heat Stress

Heat related illnesses are influenced by several factors, such as: climate and environmental conditions, demands of the work, clothing and personal characteristics. Environmental factors include air temperature, air movement, humidity and radiant heat. Personal characteristics include such factors as age, weight, gender, fitness level, medical condition(s), metabolic heat, diseases, water and salt balance, and medication the employees are taking. A study conducted by NIOSH links the signs of heat stress to an increase in workplace accidents.

The human body regulates high temperatures by two primary mechanisms: blood flow and sweating. Blood is circulated to the skin, increasing the skin temperature and allowing the body to give off the excess heat through the skin. Sweating occurs when the body senses the heat loss due to increased blood circulation is not enough to cool the body. Evaporation of the sweat cools the skin and eliminates large quantities of heat from the body. If the body is unable to release excess heat, it will store it. When this happens, the body's core temperature rises and the heart rate increases. If the body continues to store heat the person may begin to have difficulty concentrating, may become irritable and lose the desire to drink. The next stage is often fainting which would signal a medical emergency. Refer to the [EHS Heat Stress Program](#) for details on common heat disorders with the accompanying symptoms and appropriate first aid measures.