

Beat the Heat - Heat Exhaustion Prevention

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"Acclimatization, which takes three to five days, is a big issue for people who live in an area with four distinct seasons," says Cyndi Ford, Research Associate at the Cooper Institute for Aerobics Research in Dallas, Texas. If you live in the South and exercise year-round, you are probably acclimated to working out in hot weather. Perhaps you belong to a health club and exercise in an air-conditioned environment. Many people, however, must adjust each spring to exercising in warm weather. Dehydration is the biggest concern, according to Ford, for a triathlete living and training in a state such as Texas. You need to maintain adequate hydration at all times. Your heart rate will run higher in hot humid weather, and you will lose more sodium than normal until you become acclimated. If you do not maintain your fluid balance, you risk circulatory failure and even death, according to Ford.

Although it will make you feel better, pouring water over your head during a workout or competition will not affect the fluid balance in your body. Wearing a comfortable hat can help retard dangerous heat build-up, but hydration is accomplished by drinking fluids. Therefore, pour all the water you want over yourself, but drink it too!

You don't want to wear anything that will retain heat (sweats, waterproof garments), and cotton is not a good choice in hot, humid weather because it holds moisture in. Wear synthetic fabrics that wick moisture away quickly and allow good air flow.

Water intake is best if you are exercising outdoors in the heat for an hour or less, says Ford. For longer training sessions, however, you need to replace carbohydrates. Warmer weather causes faster metabolism of these substances, so you need to replace them with a cool carbohydrate sports drink such as Gatorade[R]. If you don't replace fluids daily, the damage can be cumulative. Therefore, drink before, during and after exercise. Once you have had a heat illness, you are more susceptible from then on. You never adapt to heat illness.

"Under humid conditions, your body sweats, but you are not any wetter than the air," Ford reminds us. Overheating is a real problem in humid weather because your body cannot evaporate the heat. A good breeze really helps because it dries the moisture and cools the skin.

http://www.findarticles.com/p/articles/mi_m0675/is_4_18/ai_63713236/pg_3

Treatment Options

Prevention

Thirst is not a reliable indicator of impending dehydration; individuals working and exercising in the heat, therefore, should drink plenty of fluids before, during, and after the activity as well as adhere to the following precautions to prevent heat exhaustion:

- Stay in cool or air-conditioned environments when possible on hot days.
- Increase fluid intake; drinking adequate fluids during exercise, for example, prevents heat exhaustion and its complications including muscle damage and kidney failure; dehydration can stress the heart and impair the kidneys' ability to maintain the correct level of fluids and balance of electrolyte (electrolytes are charged elements—like

potassium, sodium, phosphorus and chloride—essential for the normal function of every cell in the body); drinking fluids during exercise helps to improve heart function, maintain kidney function, and lower the body's core temperature.

- Check on those vulnerable to heat exhaustion (the elderly, for example).
- Avoid alcohol, caffeine and sugar which may all be dehydrating; drink sports drinks that are sweetened with natural juices.
- Exercise or work outdoors during cooler times of day.
- Take cool baths.
- Wear loose, lightweight clothing.
- Athletes should consume 500 ml of fluids before an event and 200 to 300 ml at regular intervals.
- According to the Centers for Disease Control and Prevention, long term prevention of heat exhaustion includes regular, physician approved exercise; novice athletes who are not well conditioned and suddenly participate in prolonged, strenuous activities on a hot day may be at increased risk for heat exhaustion and sudden kidney failure; those who participate in regular exercise over time, allowing their bodies to adjust to hot conditions, may better tolerate exercise on hot days

<http://www.umm.edu/altmed/ConsConditions/HeatExhaustioncc.html>