



Hyperthermia: Overheating creates serious health risks

Heat-related health problems increases with age

The Bonita Springs Fire Control and Rescue District would like to remind you to be safe during these hot and humid summer months (and even during the warmer Spring/Fall months in Florida).

It is important for everyone, especially older adults and people with chronic medical conditions, to be aware of the dangers of hyperthermia. Summer often brings excessive heat, which can lead to heat-related problems caused by hyperthermia, an abnormally high body temperature.

According to the National Institute of Aging, hyperthermia is caused by a failure of the heat-regulating mechanisms of the body to deal with the heat coming from the environment. Heat fatigue, heat syncope (sudden dizziness after prolonged exposure to the heat), heat cramps, heat exhaustion and heat stroke are forms of hyperthermia. These conditions can pose special health risks for older adults, and can increase with the combination of outside temperature, general health and individual lifestyle.

Factors that may increase hyperthermia risk include:

- Dehydration.
- High blood pressure or other health conditions that require changes in diet. For example, people on salt-restricted diets may be at increased risk. However, salt pills should not be used without first consulting a doctor.
- Heart, lung and kidney diseases, as well as any illness that causes general weakness or fever.
- Use of multiple medications. It is important, however, to continue to take prescribed medication and discuss possible problems with a physician.
- Reduced perspiration, caused by medications such as diuretics, sedatives, tranquilizers and certain heart and blood pressure drugs.

- Age-related changes to the skin such as poor blood circulation and inefficient sweat glands.
- Being substantially overweight or underweight.
- Alcohol use.

Lifestyle factors increasing risk for hyperthermia in hot weather can include not drinking enough fluids, living in housing without air conditioning, lack of mobility and access to transportation, overdressing, visiting overcrowded places and not understanding how to respond to the weather condition. People with chronic medical conditions, should stay indoors on hot and humid days if at all possible. Be particularly careful exercising in the heat.

If you suspect that someone is suffering from a heat-related illness:

- Get the person out of the heat and into a shady, air-conditioned or other cool place. Urge the person to lie down.
- If you suspect heat stroke, call 911!
- Encourage the individual to shower, bathe or sponge off with cool water.
- Apply a cold, wet cloth to the wrists, neck, armpits, and/or groin. These are places where blood passes close to the surface of the skin, and the cold cloths can help cool the blood.
- If the person can swallow safely, offer fluids such as water, fruit and vegetable juices, but avoid alcohol and caffeine.

Heat stroke is a life-threatening form of hyperthermia. It occurs when the body is overwhelmed by heat and unable to control its temperature. Heat stroke occurs when someone's body temperature increases significantly (generally above 104 degrees Fahrenheit) and has symptoms such as mental status changes (like confusion or combativeness), strong rapid pulse, lack of sweating, dry flushed skin, faintness, staggering or coma. Seek immediate emergency medical attention for a person with any of these symptoms, especially an older adult.

Below is information provided by WebMD particularly focused towards safety when **exercising** during the hot and humid summer months, the information is to be used as a guide to keep you safe from hyperthermia during these susceptible times.



Summer Exercise Tip No. 1: Acclimate Yourself

"When the weather warms, you need to be acclimated to the temperature change," says William O. Roberts, MD, FACSM, a family medicine and sports medicine doctor at the University of Minnesota's Phalen Village Clinic. "Expose yourself regularly."

Branch tells her clients it can take up to 14 days to adjust to temperature changes. When clients are preparing for an event that will take place in the heat of the day, Branch coaches them to be active in the heat ahead of time: "They have to try to get out in the middle of the day when it's hot and exercise in order to acclimate to the conditions for the event."

But remember, if you are just doing routine exercise, it is better to exercise outside when it is cooler, such as the early morning or evening. (See more about this in tip No. 5.)

Summer Exercise Tip No. 2: Stay Hydrated

When it comes to summer exercise, all our experts agree that the biggest concern is hydration.

Suzanne Girard Eberle, author and sports dietitian in Portland, Ore., says that if you come back from a summer workout 1 to 2 pounds lighter, you've got to do a better job keeping up with hydration. You lose 2 1/2 cups of water per pound of body weight lost, she says.

If your urine is the color of lemonade, says Roberts, you're well hydrated. If it's darker in color then you may be dehydrated.

"If you're going four to six hours without eliminating, you're not hydrated enough," adds Eberle, a former elite runner and author of *Endurance Sports Nutrition*.

To maintain good hydration for a moderate summer workout, Roberts recommends drinking 20 ounces of water two hours before exercise, at least 8 ounces of water shortly before getting out in the heat, and then a gulp every 15 to 20 minutes during exercise. Make sure to talk to your doctor about specific fluid intake when you exercise.

To stay better hydrated, says Eberle, drink fluids with food throughout the day.

Summer Exercise Tip No. 3: Slow Down

When the temperature hits the 90s, don't expect to go out and set a personal record, says Roberts.

"If it's hotter than you're used to, cut the pace back or cut the exposure back," he says. "Don't try to do the same pace you did the day before."

Be careful about trying to keep up with friends who are more fit or have a higher tolerance for heat as well, says Eberle.

"Just realize you are going to be slower," says Eberle, "and particularly on humid days, it's going to take you longer to finish."

Summer Exercise Tip No. 4: Wear Light, Breathable Clothing

Lightweight fabrics that wick away sweat are best for exercising in the heat, says Eberle. Clothes should also be light in color in order to reflect the sun.

"One common problem is people overdress," she says. "They cover up the working muscles in the legs, which generates a lot of heat."

Sunscreen is also important when you exercise outdoors.

"A well-ventilated hat with a brim and some lightweight sunglasses can [protect your face] and help prevent headaches," says Eberle.

If your summer workout involves wearing a protective helmet, adds Roberts, remove it during rest periods to allow your head to breathe and cool off.

Summer Exercise Tip No. 5: Exercise Early or Late

If possible, get out before 7 a.m. or after 6 p.m. to exercise in the summer months, says Roberts. This will add length to your day, and energy to your summer workout. Inevitably, heat and humidity will slow you down.

"In the worst part of summer, especially if you just want to exercise for health, do it in the gym if you can. Or get out early in the day or late in the evening," says Branch.

Summer Exercise Tip No. 6: Assess the Previous Day

It's not enough to know how you feel right before going out to exercise in the heat, says Roberts.

"It's very important with those who exercise regularly to take into account the physical activity, fluid ingestion, and diet of the previous day," she says. "You could be dehydrated or fatigued even prior to exercising," which could get you into trouble faster on a hot day, she says.

Summer Exercise Tip No. 7: Know the Route and Climate

It's important to know your route and your climate, says Roberts.

"Make sure that there's some shade along the way and that you're not exposed to constant direct sunlight," she says.

Check the heat index for the relative humidity that day and plan accordingly, she says. Contain your summer exercise to the least hot and humid part of the day.

If you live in a dry climate, like the desert Southwest, says Roberts, remember that sweat evaporates quickly. You're going to lose a lot more fluid exercising in the heat in Phoenix than Portland. And because it's drying almost before you can see it, you don't know how much fluid you're losing.

Summer Exercise Tip No. 8: Consult Your Doctor or Pharmacist

Many medications -- both prescription and over-the-counter -- can intensify the effects of heat-related illnesses, says Roberts. Decongestants, appetite suppressants, antihistamines, antihypertensives, and antidepressants can hasten dehydration and decrease the body's ability to recognize danger.

Even diuretics like caffeine and alcohol, when consumed before exercising in the heat, can accelerate the effects of dehydration, says Roberts.

Summer Exercise Tip No. 9: Use Common Sense

Don't choose a hot summer day to try your hand at rock climbing or in-line skating for the first time.

"You shouldn't start doing something brand new if it's really hot," says Roberts, "even if it's just for a half an hour."

When you don't know what to expect or how your body will take to the activity, it's best to save it for a cooler, more forgiving day, he says.

"The biggest thing with heat and exercise," says Branch, "is common sense. If you're feeling bad, you need to get inside, get your core temperature down. Even if you are in an event, it's just not worth it. You want to live to run another day."