Heat Illnesses Can be Fatal; Would You Know What to Do?

Did you know your body is constantly in a struggle to disperse the heat it produces? Most of the time, you’re hardly aware of it—unless your body is exposed to more heat than it can handle. In 2014, 244 people died in the U.S. from exposure to excessive heat, according to Injury Facts 2017, the annual statistical report on unintentional injuries produced by the National Safety Council. Heat-related illnesses can escalate rapidly, leading to delirium, organ damage and even death.

There are several heat-related illnesses, including heatstroke (the most severe), heat exhaustion and heat cramps. Those most at risk include:

- Infants and young children
- Elderly people
- Pets
- Individuals with heart or circulatory problems or other long-term illness
- People who work outdoors
- Athletes and people who like to exercise—especially beginners
- Individuals taking medications that alter sweat production
- Alcoholics and drug abusers

Heatstroke

Heatstroke can occur when the ability to sweat fails and body temperature rises quickly. The brain and vital organs are effectively “cooked” as body temperature rises to a dangerous level in a matter of minutes. Heatstroke is often fatal, and those who do survive may have permanent damage to their organs. Someone experiencing heatstroke will have extremely hot skin, and an altered mental state, ranging from slight confusion to coma. Seizures also can result. Ridding the body of excess heat is crucial for survival.

- Move the person into a half-sitting position in the shade
- Call for emergency medical help immediately
- If humidity is below 75%, spray the victim with water and fan them vigorously; if humidity is above 75%, apply ice to neck, armpits or groin
- Do not give aspirin or acetaminophen
- Do not give the victim anything to drink

Heat Exhaustion

When the body loses an excessive amount of salt and water, heat exhaustion can set in. People who work outdoors and athletes are particularly susceptible. Symptoms are similar to those of the flu and can include severe thirst, fatigue, headache, nausea, vomiting and, sometimes, diarrhea. Other symptoms include profuse sweating, clammy or pale skin, dizziness, rapid pulse and normal or slightly elevated body temperature. Uncontrolled heat exhaustion can evolve into heatstroke, so make sure to treat the victim quickly.

- Move them to a shaded or air-conditioned area
- Give them water or other cool, nonalcoholic beverages
- Apply wet towels or having them take a cool shower

Heat Cramps

Heat cramps are muscle spasms that usually affect the legs or abdominal muscles, often after physical activity. Excessive sweating reduces salt levels in the body, which can result in heat cramps. Workers or athletes with pain or spasms in the abdomen, arms or legs should not return to work for a few hours. Instead:

- Sit or lie down in the shade.
- Drink cool water or a sports drink.
- Stretch affected muscles.
- Seek medical attention if you have heart problems or if the cramps don’t get better in an hour.

The Centers for Disease Control and Prevention offers more information on heat-related illness in this FAQ.

The best way to avoid a heat-related illness is to limit exposure outdoors during hot days. Air conditioning is the best way to cool off, according to the CDC. Also:

- Drink more liquid than you think you need and avoid alcohol
- Wear loose, lightweight clothing and a hat
- Replace salt lost from sweating by drinking fruit juice or sports drinks
- Avoid spending time outdoors during the hottest part of the day, from 11 a.m. to 3 p.m.
- Wear sunscreen; sunburn affects the body’s ability to cool itself
- Pace yourself when you run or otherwise exert your body
The sun’s ultraviolet (UV) rays can damage your skin in as little as 15 minutes. Follow these recommendations to help protect yourself and your family.

**Shade**
You can reduce your risk of skin damage and skin cancer by seeking shade under an umbrella, tree, or other shelter before you need relief from the sun. Your best bet to protect your skin is to use sunscreen or wear protective clothing when you’re outside—even when you’re in the shade.

**Clothing**
When possible, long-sleeved shirts and long pants and skirts can provide protection from UV rays. Clothes made from tightly woven fabric offer the best protection. A wet T-shirt offers much less UV protection than a dry one, and darker colors may offer more protection than lighter colors. Some clothing certified under international standards comes with information on its ultraviolet protection factor. If wearing this type of clothing isn’t practical, at least try to wear a T-shirt or a beach cover-up. Keep in mind that a typical T-shirt has an SPF rating lower than 15, so use other types of protection as well.

**Hat**
For the most protection, wear a hat with a brim all the way around that shades your face, ears, and the back of your neck. A tightly woven fabric, such as canvas, works best to protect your skin from UV rays. Avoid straw hats with holes that let sunlight through. A darker hat may offer more UV protection.
If you wear a baseball cap, you should also protect your ears and the back of your neck by wearing clothing that covers those areas, using a broad spectrum sunscreen with at least SPF 30, or by staying in the shade.

**Sunglasses**
Sunglasses protect your eyes from UV rays and reduce the risk of cataracts. They also protect the tender skin around your eyes from sun exposure.
Sunglasses that block both UVA and UVB rays offer the best protection. Most sunglasses sold in the United States, regardless of cost, meet this standard. Wrap-around sunglasses work best because they block UV rays from sneaking in from the side.

**Sunscreen**
Put on broad spectrum sunscreen with at least SPF 30 before you go outside, even on slightly cloudy or cool days. Don’t forget to put a thick layer on all parts of exposed skin. Get help for hard-to-reach places like your back. And remember, sunscreen works best when combined with other options to prevent UV damage.

- **How sunscreen works:** Most sunscreen products work by absorbing, reflecting, or scattering sunlight. They contain chemicals that interact with the skin to protect it from UV rays. All products do not have the same ingredients; if your skin reacts badly to one product, try another one or call a doctor.
- **SPF:** Sunscreens are assigned a sun protection factor (SPF) number that rates their effectiveness in blocking UV rays. Higher numbers indicate more protection. You should use a broad spectrum sunscreen with at least SPF 30.
- **Reapplication:** Sunscreen wears off. Put it on again if you stay out in the sun for more than two hours and after swimming, sweating, or toweling off.
- **Expiration date:** Check the sunscreen’s expiration date. Sunscreen without an expiration date has a shelf life of no more than three years, but its shelf life is shorter if it has been exposed to high temperatures.
- **Cosmetics:** Some makeup and lip balms contain some of the same chemicals used in sunscreens. If they do not have at least SPF 30, don’t use them by themselves.
Mosquitoes

Here are a few mosquito facts courtesy of the American Mosquito Control Association that might help explain why mosquitoes ignore some people and persecute others, and why some mosquito bites seem larger or more itchy than others:

• Some form of mosquitoes existed as far back as the Triassic Period - 400 million years ago.
• There are about 2,700 species of mosquito. There are 176 species in the United States.
• The average mosquito weighs about 2.5 milligrams.
• The average mosquito takes in about 5-millionths of a liter of blood during feeding.
• Mosquitoes find hosts by sight (they observe movement); by detecting infra-red radiation emitted by warm bodies; and by chemical signals (mosquitoes are attracted to carbon dioxide and lactic acid, among other chemicals) at distances of 25 to 35 meters.
• Mosquitoes fly an estimated 1 to 1.5 miles per hour.
• Salt marsh mosquitoes can migrate up to 40 miles for a meal.
• Larger people often are more attractive to mosquitoes because they are larger targets and they produce more mosquito attractants, namely CO2 and lactic acid.
• Active or fidgety people also produce more CO2 and lactic acid.
• Smelly feet are attractive to certain species of mosquitoes - as is Limburger Cheese.
• Dark clothing has been shown to attract some species of mosquitoes more than lighter colored clothing.
• Movement increased mosquito biting up to 50 percent in some research tests.
• A full moon increased mosquito activity 500 percent in one study.
• Mosquitoes are not just a nuisance. They can spread potentially fatal diseases such as West Nile Virus and Eastern Equine Encephalitis.

There are things you can do to limit mosquito activity and improve your chances of remaining bite-free:

Water: Eliminate standing water, which acts as a breeding ground for mosquitoes. The sources of standing water can include flowerpots, children's pools, watering cans, gutters etc.

Trash: Remember to keep the lids on trashcans to keep out the rain.

Puddles: Cover up or fill in low places in your yard where puddles can develop.

Gutters: Keep gutters cleaned out so water does not build up inside and become a mosquito breeding ground.

Drains: Make sure all drains on your property also are cleaned out without leaves blocking them up so water can drain effectively.

Pipes: Repair leaky pipes and outdoor faucets.

Toys: Empty plastic wading pools at least once a week or store in a position that allows the water to drain.

Pools: Make sure your backyard pool is maintained properly.

Bird baths and planters: Change water in bird baths and planter pots or drip trays at least once a week.

Grass: Keep grass cut short around the house, so adult mosquitoes will not hide there.

Make sure there are screens in your home's windows and doors. Make sure the screens are free of rips, tears and holes!
Lawn Mowing Safety

As innocuous as this household chore might seem and there probably are some who consider it more of a passion than a chore each year more than 70,000 people with lawnmower-related injuries end up in emergency rooms, including more than 7,000 children under 15.

To protect everyone:
- Buy only a mower with a control that stops the mower when you let go of the handle.
- Each year, thoroughly review and follow the operating and maintenance instructions in your operator’s manual.
- Get your mower professionally serviced before each cutting season.
- Leave all safety features intact.
- Invest in [ANSI-approved] safety glasses, especially when using side-discharge mowers and lawn trimmers.
- Do not operate a lawnmower when you’re tired or under the influence of alcohol or a medication.
- Wear hearing protection, but do not listen to music or the radio.
- Fill the tank outdoors. To avoid refueling, put in just enough gasoline to perform the job.
- Put children and pets in the house until finished.

The Outdoor Power Equipment Institute recommends that children do not operate a lawnmower. If you allow a teenager to mow grass, be sure he or she understands the operator’s manual, will exercise caution and is strong enough to manage the mower. Supervise several jobs before allowing him or her to do the job on his or her own, and spot-monitor unannounced later.

When walking behind a mower:
- Mow only in dry conditions and daylight.
- Before starting, pick up any rocks, sticks, cans, wires or toys in your path.
- Wear close-fitting long pants and heavy-duty shoes with non-slip soles and steel-toe protection. For mowing terraces, consider shoes with cleats.
- Cut the difficult or hilly areas first, while you’re fresh and your concentration is at its peak.
- Never leave the mower unattended while the engine is running.
- Stop when a person, especially a child or a pet, is in the area.
- Never cross driveways or paths with the blade rotating. The blade can pick up and throw rocks.
- To clear a clogged discharge chute, turn off the engine and then use only a stick.
- If the blade strikes an object, turn off the engine and examine the mower thoroughly for damage. Before checking the blade, remove the spark plug wire, if accessible.
- Mow across inclines.
- Keep the mower flat.
- Push the mower. Pulling it increases the risk of slipping and pulling it over your foot.

For riding mowers:
- Do not carry passengers on a riding mower, especially small children. About 15 children are killed each year in riding mower incidents, usually from falling off the mower and being run over.
- When backing up, look behind and down for children and pets.
- Always start the machine from the operator’s seat.
- Slow down at corners, blind spots and when descending hills.
- Watch for holes, ruts or bumps obscured by grass.
- Do not mow in reverse. If you must back up, disengage the blade and proceed with caution.
- To avoid tipping, mow up and down on gentle slopes never across.
- If there’s doubt about tipping or losing control of the riding mower, stay off the slope.
- If the tires slip on a slope, it’s too steep. Disengage the blade and go slowly, straight down the slope.
- Inspect your riding mower each time before you start it.
**GRILL TIPS**

HPBA-Hearth, Patio and Barbecue Association offers these safety tips to guide you through the grilling process:

- **Read the owner’s manual** – Always read the owner’s manual before using your grill and follow specific usage, assembly and safety procedures. Contact the grill manufacturer if you have specific questions.
- **Grills are for outside only** – Never barbecue in your trailer, tent, house, garage or any enclosed area, because carbon monoxide may accumulate and kill you.
- **Use your grill in an open area** – Place your grill in an open area that is away from buildings, overhead combustible surfaces, dry leaves or brush.
- **Keep the grill stable** – When using a barbecue grill, be sure that all parts of the unit are firmly in place and that the grill cannot tip over.
- **Use long-handled utensils and/or barbecue mitts** – Use barbecue utensils with long handles (forks, tongs, etc.) and wear barbecue mitts to avoid burns and splatters.
- **Wear safe clothing** – “Kiss the cook” aprons are fun, but wear clothing that does not have hanging shirt-tails, frills or apron strings that can catch fire, and use flame-retardant mitts when adjusting hot vents.
- **Keep the fire under control** – To put out flare-ups, either raise the grid that the food is on, spread the coals out evenly or adjust the controls to lower the temperature. If you must douse the flames with a light spritz of water, first remove the food from the grill.
- **Be ready to extinguish flames** – Use baking soda to control a grease fire and have a fire extinguisher handy. A bucket of sand or a garden hose should be near if you don’t have a commercial extinguisher. Consider placing a grill pad or splatter mat beneath your grill to protect your deck or patio from any grease that misses the drip pan.
- **Stay away from hot grills** – Don’t allow anyone to conduct activity near the grill when it’s in use or immediately following its use, and never attempt to move a hot grill.
- **Never leave a grill unattended once it’s lit.**

**ERGONOMIC ASSESSMENT:** Christine Body has been doing ergonomic assessments since 1996 and is available to do them here on campus. She can be reached at 312-2770 and would be happy to assist you with any questions or issues.

**Have a safety issue or concern you’d like to report? Please contact a member of the Joint Labor Management Health and Safety Committee:**

**CSEA Members**
- Fred Matteson-Plumbing
- Mark Sierson-Plumbing
- Brian Bateman-BTC
- Joe Scanlon-BTC
- Mike Flack-Custodial
- Donna Monette-Custodial
- Melana Perkins-Custodial
- Dan Hoefer-Electrical
- Colleen Dewine-Grounds

**Management Representatives**
- Eric Foertch-EHS
- Mary DePentu-Maintenance and Operations
- Christine Body-EHS
- Nick Scaturro-EHS
**July Word Search**

For a chance to win a great prize (more like an OK prize, but hey, it’s a PRIZE!), complete the Word Search and send it via e-mail to lisa.drake@oswego.edu OR through Campus Mail: Lisa Drake, 110 Lee Hall. Make sure to put your name on it! The winner for June was Delia Dodge. Look for: Heat Related Illness, Heat Stroke, Exhaustion, Cramps, Elderly, Infants, Pets, Sweat, Temperature, Dizziness, Muscle Spasms, Ultraviolet, Shade, Sun Protection Factor, Hat, Sunglasses, UVA, UVB, Broad Spectrum, Sunscreen, Mosquito, West Nile Virus, Encephalitis, Water, Trash, Gutters, Pools, Screens, Lawn Mower, Safety Glasses, Engine, Blade, Grill, Carbon Monoxide, Mitts.

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**Never, ever, EVER leave your dog in a hot car!!**

Okay, you’ve probably heard this one before, but it’s so important that we still decided to list it first. It can take minutes – yes, MINUTES – for a pet to develop heat stroke and suffocate in a car. Most people don’t realize how hot it gets in parked cars. On a 78 degree day, for instance, temperatures in a car can reach 90 degrees in the shade and top 160 degrees if parked directly in the sun! Your best bet is to leave your dog home on warm days. If you’re driving around with your dog in the car, bring water and a water dish and take your dog with you when you leave the car.

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**Dutchism for July**

**Gull**

Sentry of the setting sun,
Performing in an orchestra of flight,
Descending safe on water,
Bring on the welcomed night.