

# UC Davis/Monthly Safety Spotlight

May 2011: Preventing Heat-Related Illness and Injury

**Protect Yourself,  
your Co-Workers  
and Your Family  
from Heat-  
Related Injury**



Sun-  
burn,  
heat  
cramps,  
heat  
exhaus-  
tion,  
heat  
stroke:  
all can

be prevented with basic knowledge and preparation. This month's sunny poster helps you avoid heat-related illness and injury at work and at home.

[Download Poster](#)

## Links & Resources



[SafetyNet 123: Heat Illness Prevention](#)

[Heat Illness Prevention Procedures Manual and Training](#)

[Cal/OSHA Heat Illness Regulations](#)

[UC Davis Health System "Beat the Heat" Tips](#)

[Video: Never Leave Your Child in the Car](#)



## Understand the Hazards

Heat related injuries can affect all ages and levels of fitness. The effects range from temporary discomfort to immediate threats to life requiring emergency response. Fortunately, through understanding the hazards and how to avoid them, injury due to heat and exertion can be avoided.



Beautiful weather and long days inspire us to go outside and get active after the dreary winter months. As the temperature rises on a hot day, however, so does the potential for heat-related illness and injury. These hazards also exist on a regular basis for athletes and those who work in hot environments, such as firefighters, construction and shop employees, agricultural workers and others. The progression of heat illness symptoms can be subtle; the affected person may not even know he or she is becoming ill.

Start by understanding the threat. Know that you and others around you are exposed to hazardous conditions on those hot days and hot conditions, and stay alert for the symptoms. Learn to spot the signs of a developing problem in a family member, co-worker, or even yourself. Be prepared to react with appropriate first aid in a heat emergency.

Work with your department or unit manager to eliminate heat hazards in your workplace. Above all, use good judgment to prevent heat stress situations by making good decisions and taking proper precautions.



## Know the Signs



Recognizing the symptoms of heat-related illness gives you the power to render help early and prevent serious harm. Heat-related illness progresses in stages. The first signs of trouble are usually heat-related muscle cramps; the next stage is heat exhaustion. Without treatment, heat exhaustion can progress to heat stroke, which is a life-threatening condition.

### HEAT CRAMPS

People working or playing hard can lose vital salt and moisture due to profuse sweating. The loss of salt causes muscle cramps. The solution is to stop the activity and gently stretch and massage the affected muscles. It is also important to rehydrate. Having the affected person drink cool (not ice-cold) water or a sports drink is also important, but take it slowly. The person should slowly drink a half-glass of water about every 15 minutes to avoid stomach cramps.

*Continued*

## Links & Resources



*“Extreme summertime heat is all too common in the Yolo County area. Individuals as well as campus departments should understand the risk factors and know how to react during one of our frequent heat waves.*

*Safety Services staff encourages everyone to read [SafetyNet #123 on Heat Illness Prevention for practical advice and planning information.](#)”*

*Robert Wachter, UC Davis Injury Prevention Specialist*



## Kids and Seniors: at Risk for Heat Illness or Injury

During hot weather, keep a close watch on children and teens participating in strenuous sports. Insist on regular rest periods and plenty of fluids, and monitor them closely for signs of heat exhaustion.

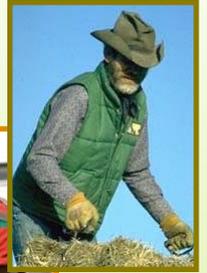
Check regularly on the welfare of older neighbors or relatives during periods of severely hot weather.

## HEAT EXHAUSTION

Heat exhaustion occurs when heat and/or activity overwhelms the body's cooling systems. If left untreated, heat exhaustion can rapidly develop into a more serious illness, heat stroke. In addition to muscle cramps, people experiencing heat exhaustion can have the following symptoms:

- ◆ Profuse sweating
- ◆ Extreme weakness or fatigue
- ◆ Dizziness, confusion
- ◆ Nausea
- ◆ Pale or flushed complexion
- ◆ Slightly elevated body temperature
- ◆ Clammy, moist skin
- ◆ Rapid, shallow breathing

First aid for heat exhaustion should be provided immediately. The affected person should be moved to a cool, shady area if outdoors, or to an air conditioned building if possible. Taking a cool bath or shower will bring relief, or if outdoors, the clothing and skin can be sprinkled or sponged with water; fanning the person will also help cool them down. He or she should rest and slowly drink cool water or sports beverage. Be sure there is no caffeine or alcohol in the beverage. If the person refuses water, vomits or loses consciousness, call 9-1-1.



## HEAT STROKE



Heat stroke can be fatal or cause permanent disability. A person suffering from heat stroke can become disoriented and confused or may lose consciousness. Their body temperature can quickly rise to as high as 106 degrees. In addition, these symptoms indicate heat stroke:

- ◆ Vomiting
- ◆ Rapid, weak pulse
- ◆ Rapid, shallow breathing
- ◆ High body temperature
- ◆ Skin that is dry, red and hot
- ◆ Confusion, hallucinations

In cases of heat stroke, immediately call 9-1-1. Follow the cooling measures as you would for heat exhaustion, but focus on cooling the body very quickly. Wrap wet sheets around the person and fan him or her. Place ice packs or cold packs on the neck, wrists and ankles. Have the affected person rest lying down until help arrives.

## Prevent Heat Injuries

### AT HOME

- ◆ **Plan your outdoor activities for the cooler morning and evening hours**
- ◆ **Wear loose-fitting, lightweight, light-colored clothing**  
**Wear a wide-brimmed hat to protect you from the sun**
- ◆ **Drink water often during the day, even when you are not thirsty**
- ◆ **Avoid drinks containing caffeine, alcohol or large amounts of sugar**
- ◆ **Monitor active children carefully for heat symptoms and enforce their rest/hydration periods**
- ◆ **Heat risk is higher for pregnant women and people with high blood pressure, diabetes and other medical conditions; monitor often!**

### AND AT WORK

- ◆ **Include heat illness prevention measures in your department's illness and injury prevention plan**
- ◆ **Schedule hot tasks for the cooler parts of the day**
- ◆ **Be aware that personal protective equipment can increase the risk of heat injury**
- ◆ **Ensure that employees working outdoors in hot weather or wearing heavy protective clothing take frequent breaks**
- ◆ **Provide employees susceptible to heat injury with ready access to cool water and shaded rest areas**
- ◆ **Regularly monitor employees who are at risk of heat injury**
- ◆ **Develop a department response plan for summer heat waves**

## Click & Learn

[safetyservices.ucdavis.edu](http://safetyservices.ucdavis.edu)

UC Davis Safety Services is here to help!

Our website offers easy access to the resources you need for a better quality of life at work and at home.

- ♦ Programs & services
- ♦ Updated policy and permit requirements
- ♦ "SafetyNets" user-oriented fact sources
- ♦ Advice & referrals
- ♦ Training and certification information
- ♦ Consultation, requirements and resources for incorporating safety and wellness principles in your department's activities
- ♦ Timely information on safety, security, risk management, emergency planning, ergonomics, injury/illness prevention and MUCH MORE!

### Contest Question



### Coffee for Your Thoughts!

Click [here](#) to answer this month's question about office safety at UC Davis. Regardless of whether your answer is right or wrong, you will automatically qualify to win a Starbucks gift card.

# Keep Them Safe

Prevention of the most tragic of heat-related deaths is ironically straightforward: Never, never, never leave a child in an unattended car, or allow children to play around unlocked parked vehicles. Fatalities happen quickly because young children cannot get out of the car themselves and their bodies are not able to compensate for the rapidly rising temperatures. It is illegal in California to leave a child unattended in a vehicle (refer to [DMV section 15620](#)).



The windows of a car trap heat in the same way that greenhouses do. In as little as ten minutes, the temperature inside a car parked in the sun can reach up to 170 degrees. Even if the windows are partially rolled down, the car is parked in the shade or on mild, 60 degree days, the car can heat up quickly enough to cause hyperthermia in a child. Death can take place in as little as 40 minutes. These cautions also apply to adults who are unable to exit the car, such as the elderly or those with disabilities.

Sadly, statistics show that this kind of childhood fatality is on the rise in the United States. The need for children to ride in the back seat can make it easier to overlook a sleeping youngster. Caregiver actions that lead to these tragic outcomes include:

- ♦ Intentionally leaving a child in the vehicle while running into a building to do an errand
- ♦ Forgetting that the child is in the car
- ♦ Thinking the other parent took the child from the car seat and brought him or her into the house
- ♦ Children playing in a parked car close the doors or the trunk and can't get back out

Prevention is surprisingly simple. Adopting these safety habits will help to keep the young people in your life safe:

- ♦ Keep a large stuffed animal in the child's car seat. When the child is in the seat, place the toy in the front seat. The toy is a big, colorful reminder that your child is in the car.
- ♦ Leave your purse, backpack or other necessity near the child so you are forced to look in the back seat when you park your vehicle.
- ♦ Set your cell phone alarm to coincide with your expected arrival time, reminding you to check the back seat.
- ♦ Use a parent "buddy system;" establish a routine of calling each other at the same time every morning to confirm that one of you left your child at day care.
- ♦ Lock cars when not in use so children cannot play in them and become trapped.
- ♦ If you see a child left alone in a closed car, call 9-1-1 immediately.

Learn more about child heat stroke prevention from the [American College of Emergency Physicians](#) website.



## HOT TIPS for Healthy Warm Weather Workouts



- ☉ Break your workout into shorter segments with rest periods in between.
- ☉ Drink plenty of cool water or sports drinks.
- ☉ Work out during the cooler early morning and evening hours.
- ☉ On extremely hot days, work out indoors in a cool or air-conditioned environment.
- ☉ Stretch thoroughly before your workout to prevent cramps, and cool down slowly afterwards.
- ☉ Wear loose, light colored clothing that wicks perspiration away and allows air to circulate.
- ☉ Use sunscreen to protect yourself from sunburn.
- ☉ Check with your doctor before starting hot weather workouts if you have any health issues or are taking prescription or over-the-counter medication.
- ☉ Learn more about heat stress at the National Institutes of Health ([NIH](#)) website.

## Your Pets



...are equally susceptible to heat stroke if left in a hot vehicle. They can also become overheated when active on a hot, sunny day. California law prohibits leaving your pet in an unattended car on hot days (CA Penal Code section 597.7). Learn how to protect your special companions with tips from the American Society for the Prevention of Cruelty to Animals ([ASPCA](#)) website.

## Icebreakers

### Safety Quiz on Heat-Related Illness and Injury

Use this quiz in your next staff meeting or safety huddle to build awareness about heat-related injury and how to prevent it.

[Download Quiz](#)

## Feedback, Please

Your input is welcome! If you have comments on the May 2011 Safety Spotlight or content suggestions for future issues, [Click here](#).

## COMING SOON!

### June/July 2011: Summertime Safety for Home and Family



Summer! long days, beautiful weather, vacations and increased family time are on the horizon. Make this summer a safe one by following some basic safety and prevention practices. The June/July issue of Safety Spotlight will cover a range of potential treats to your family's health and well being and how to avoid them. Join us for next month's first UC System-wide issue focusing on summer safety!

## Careless Chris Hits the Ground Running

### ...An Imaginary Scenario

Careless Chris was finding the warm summer weather inspiring. One of her new projects was to combine community service with her new personal improvement campaign. She planned to achieve this by participating in a non-profit fund raising half-marathon.

Chris was in her early 40s and felt she was very fit. She didn't consider it necessary to build up her activity gradually. She hadn't worked out much during the winter months, but believed she could handle the half-marathon with a minimum of training. Before signing up with the non-profit group, Chris decided to do some advance training on her own to get at head start. She got up early the next day and listened to the news. The temperature was expected to reach 85 degrees. "Typical summer day around here," she thought, "I can handle it." It wouldn't be long before she regretted that moment of complacency.



*Careless Chris was overly confident about her ability to take on a rigorous outdoor workout without properly acclimatizing herself or practicing basic heat safety precautions.*

[Click here to continue](#)



By sharing resources and working together to publish a System-wide newsletter, UC EH&S Managers exemplify the principles of collaboration and economy promoted by the UC Regents and reinforced by Chancellor Katehi.

Associate Vice Chancellor Jill Blackwelder Parker. "As we publish future issues, we'll be collaborating with subject matter experts from all participating campuses, under the leadership of EH&S Managers and UCOP EHS Director Erike Young."

UC Davis employees will continue to have access to Monthly Safety Spotlight using a convenient link. Each campus will be able to customize a section of the newsletter to feature their specific programs, announcements, links and contact information. We hope your enjoyment of Monthly Safety Spotlight will be enhanced by the knowledge that all UC employees will now be sharing this resource with you.

## Safety Spotlight Goes System-Wide

Starting with next month's June/July issue, the UC Office of the President will begin publication of Monthly Safety Spotlight, making the newsletter available to all UC campuses. This decision will support the System-wide commitment to actively promote a culture of safety and wellness.

"I am very pleased that UCOP leaders decided to adopt the UC Davis model as a System-wide monthly safety newsletter," says UC Davis Safety Services



## Safety Discussion Topics

Discussion points designed to make your department safety meetings more interesting and productive. Download in horizontal format to include in your PowerPoint presentation, or download in vertical format to print out as handouts or bulletin board reminders.

### Preventing Heat-Related Illness and Injury

[May 2011 Safety Discussion Topics in PowerPoint - for presentation](#)

[May 2011 Safety Discussion Topics formatted for handouts](#)