



# Safety Works

Committed to a safer environment for everyone!

## Avoid eye injuries

Nine of every ten eye injuries need not occur. To keep your eyes safe, wear safety glasses or goggles when performing hazardous tasks:

**In the yard**—Mowing, weeding, chopping wood, using a chain saw; or spreading or spraying pesticides, herbicides, and fertilizers.

**In the house**—Using oven, drain, or furniture cleaners; other harsh chemicals, such as detergents, ammonia, or bleach.

**In the workshop**—Around dyes, solvents, paints, inks, varnishes, plaster dust, nails, screws, glues (*super glue from your finger to an eyelid can do drastic, permanent damage*).

**In sports**—Playing basketball, volleyball, baseball (a hard hit ball can travel up to 150 mph.), tennis, racquetball, badminton, or squash.

**In vehicle repair**—Jump starting a dead battery.

Ensure your safety glasses meet requirements of the ANSI standard, which specifies the thickness, impact resistance of lenses, and fire and impact resistance of the frames. Buy frames with side shields and polycarbonate lenses. (Safety glasses can be made with prescription lenses.)

**First Aid for Eye Injuries:** Do not assume any eye injury is innocent. When in doubt, immediately seek competent medical help.

**Speck in the eye**—Lift the upper eyelid outward and down over the lower lid. Let tears wash out the speck or particle. Keep the eye closed, bandage [Continued page 5]

## Injury update

<u>Injury Type &amp; Number</u>	<u>2000</u>	<u>2001</u>
Slips & falls—mostly on icy surfaces . . . . .	16	16
Punctures—including needle sticks. . . . .	12	7
Back strains—due to lifting heavy objects, twisting while lifting, and awkward postures while lifting or carrying materials. . . . .	10	11
Other strains—knee, shoulder, elbow, etc. . . . .	7	17
Hits by objects—including vehicle accidents, and getting hit by falling objects . . . . .	10	3
Cuts . . . . .	6	6
Cumulative Trauma Disorders . . . . .	6	4
Foreign bodies in eye or skin. . . . .	4	4
Other Injuries . . . . .	2	2
<b>Total Injuries</b>	<b>73</b>	<b>70</b>

WSU employees reported 70 injuries which required medical attention between January 1 and December 31, 2001. The table above compares injury types and numbers with last year.

If you are injured at work, WSU has procedures to follow, *whether or not your injury requires medical treatment*. EH&S has brochures outlining the workers compensation claim process.

For a copy of the brochure, or for other claim-related question, contact Jolene Clark, ext. 7823, or [jclark3@weber.edu](mailto:jclark3@weber.edu).

## June is National Safety Month

Celebrate National Safety Month by visiting the National Safety Council Website:  
<http://www.nsc.org/nsm.htm>.

The National Safety Council has designated each week in June for a specific safety topic:

**June 2-8:** Teenage driving and child safety seats

**June 9-15:** Fall prevention

**June 16-22:** Individual and organizational emergency preparedness

**June 23-29:** Workplace safety.



Richard Sandau has been appointed manager for the Environmental Health and Safety Office. Familiar to the campus as WSU's hazardous materials specialist for four years, Richard began his new job May 1, 2002.

Sandau is pleased with the existing concern and interest in safety exhibited by many employees. He plans to continue encouraging employees to actively develop and participate in programs aimed at improving campus safety in their own work areas.

# Summer Hazards

## Ticks

**Description:** Ticks are a specialized group of mites about 0.08" to 0.24" long. Female ticks may be 0.4" or more in diameter when fully engorged with blood. The adult tick has a mitelike body with a tough skin and four pairs of clawed legs. Tick larvae have only three pairs of legs. The mouthparts consist of a paired anchoring organ and a pair of sharp mandibles.

Although ticks prefer to feed on wild animals, especially mice and deer, they will also feed on dogs, cats, livestock, and humans. Ticks will feed on blood for three to five days. During a blood meal, the tick swells to more than four times its normal size. After feeding, the tick drops to the ground.

The deer tick is found in forest shrubbery, high grassy areas, and open fields. Ticks do not jump or fly. They crawl up vegetation, wait for an animal to brush against them, climb on the animal, and insert their mouth parts. People who visit or live near the woods or other deer tick habitats, run a high risk of contracting Lyme disease.

**Hazard:** Ticks can transmit Lyme and other illnesses. May through early July is when most cases of Lyme disease are contracted, but deer ticks are active as long as temperatures are above freezing.

**How to avoid bites:** To prevent tick bites: Avoid tall grass and shrubbery; wear light-colored clothing (*so ticks are easier to see*); wear long pants tucked into socks; widen trails through woods (*to six feet*); eliminate brush piles; keep turf grass mowed; thin out low shrub vegetation in woodlands; wear a tick repellent (*Applied to clothing and/or skin, these*

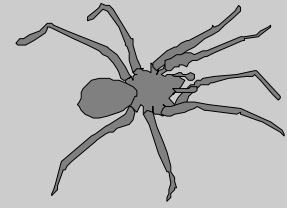
*preparations repel 82% to 100% of ticks.*); turn sleeping bags inside out, shake, and air them before re-rolling for storage; air out and sweep tents after using them.

Because infected ticks must feed for at least 24 hours before they can begin to transmit Lyme disease bacterium, *removing the tick within 24 hours of being bitten greatly reduces the likelihood of the tick transmitting Lyme disease to you.* Therefore, after participating in an outdoor activity: 1) Put your clothes in the dryer. (*Dry heat kills ticks.*) 2) Check yourself and your family daily for ticks, especially children. Check your body thoroughly, paying close attention to armpits, groin, and neck. (*Have someone else check areas you cannot readily view.*)

Consult your doctor if you detect the following signs of Lyme disease after engaging in high risk activities: headache, flu-like symptoms, "bull's-eye" rash (*less than 2" diameter*), joint swelling and pain, fatigue.

**Tick removal:** The proper way to remove ticks is only with tweezers (*bent, "needle-nose" are best*). Apply steady backward force until the tick is dislodged. **Do not** use alcohol, nail polish, hot matches, petroleum jelly, or other methods. (*These methods may traumatize ticks, causing them to regurgitate their gut contents, which may include the Lyme disease bacterium.*)

**Sources:** Township of West Milford Search & Rescue Web page; Evan A. Sugden, B.A., Ph.D., Biological Cooperator, United States Department of Agriculture-Agricultural Research Service.



## Hobo Spider

**Description:** 1/2" to 1 3/4" body length, dark brown, chevron pattern on abdomen that often fades in older spiders.

**Why be concerned?** What starts as a small spider bite can grow into a large wound as its powerful venom slowly kills the flesh.

**What you can do.** Hobo spiders spin a distinct, dense, funnel-shaped web, typically along foundations, in woodpiles, stacked equipment, or yard waste. The hobo spider rarely climbs high on vertical surfaces, so search low to the ground. Hobo spiders do not create all funnel-shaped webs, but treat them all carefully. Wear gloves when working in the yard, cleaning your basement, or reaching into dark areas.

**How to avoid bites:** The easiest, least invasive treatment is a nontoxic material that makes it impossible to attach a web to a structure. Reducing their food supply (insects), eliminating their habitat, and removing their webs can also discourage hobo spiders. Excessive populations can be eliminated through chemical treatment. This integrated program can be adapted to control a variety of spiders in and around structures.

**Source:** Eden Advanced Pest Technologies; Image: University of Nebraska

# Summer Hazards-Continued

## Black Widow Spider

**Description** Up to 3/4-inch in length with abdomen 3/8-inch in diameter, typically glossy black, but may also be dark brown to light brown, characteristic red markings on the underside of the abdomen often connect to form an hourglass shape, but this does not always occur.

**Why be concerned?** The black widow spider bite results in severe pain that may take several days to subside. Such bites are rarely fatal, but small children, elderly adults, and very ill persons are at risk.

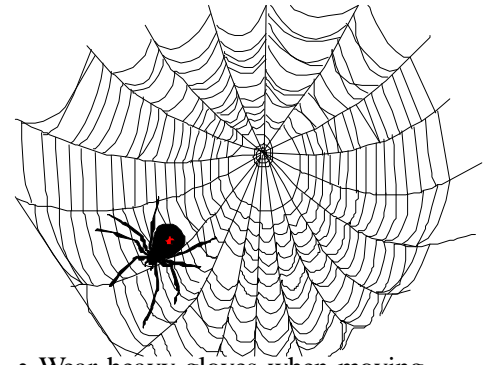
**How to avoid bites:** Black widow spiders construct irregular, scaffold-

type webs usually near the ground level, almost always in a protected site, such as among piles of boards, firewood, and between boxes and items stored haphazardly in garages or outside.

Bites most frequently occur when people are picking up an item under which the spider is hiding or putting on a shoe the spider has crawled into.

Follow these tips to avoid bites:

- Keep boxes and objects stored neatly and away from walls in or around a home.
- Check outhouses carefully before sitting down, the black widow likes to spin her web below the toilet seat.



- Wear heavy gloves when moving items stored for long periods outside, in garages, basements, or warehouses.
- Store shoes inside boxes, or shake them vigorously before wearing;
- When you see webs, inspect carefully before putting your hand beneath an object.
- If you encounter numerous spiders, contact a pest control agency. If you elect to eliminate them yourself, use a shop vacuum, and take care when opening the vacuum to kill the spiders.

Source & Image: Terminix

## Rodents

The deadly Hantavirus is carried by rodents, chiefly the deer mouse. One of every three Utah deer mice carries the virus, which does not kill the mouse. It keeps alive in the rodent population, occasionally spreading to a human, usually who inhales dust containing mouse droppings. Early treatment reduces the risk of death, but unfortunately, the Hantavirus symptoms mimic the flu.

People don't have much exposure to deer mice, and exposure to Hantavirus is reduced even more when people prevent exposure by using the following guidelines:

Assume all rodents are carriers, and avoid them and their nesting places. Keep rodents out of your house and away from your property by making your home, workplace, or vacation home unattractive to rodents.

**Use these precautions** when entering cabins or outbuildings (or work areas) that have been closed awhile: Open buildings and let them air out before cleaning. Kill the virus before it becomes airborne by cleaning up infested areas using these procedures: 1) Wear latex gloves. (*Put them on before cleaning.*) 2) Don't disturb dust by sweeping or vacuuming droppings or nesting materials. (*Thoroughly wet contaminated areas with detergent or disinfectant to kill the virus.*) Most general purpose disinfectants and household detergents are effective.

Once everything is wet, pick up contaminated materials with damp towels, then mop or sponge the area with disinfectant. Spray dead rodents with disinfectant, then double-bag (*enclose one plastic bag inside another*) carcasses, along with all

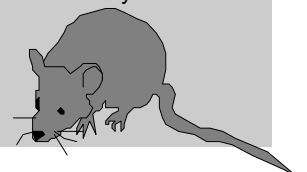
cleaning materials, and bury, burn, or discard in an appropriate waste disposal system.

(Weber/Morgan District Health Department Environmental Health Program Manager, Barre Draper, said the double-bagged waste can be discarded in regular trash.)

**Before removing gloves,** wash them with disinfectant or soap and water. After removing the cleaned gloves, thoroughly wash your hands with soap and warm water.

If your home or workplace is heavily infested with rodents, and you see lots of droppings or rodents, get help from a professional exterminator.

**Source:** Craig Nichols, state entomologist, and Utah State University electronic publication.



# Summer Hazards: Snakes

**Description:** Since most snakes in Utah are non-venomous, most snake encounters are generally not dangerous. Because a venomous snake bite can be lethal, it is important to know how to identify venomous and non-venomous snakes.

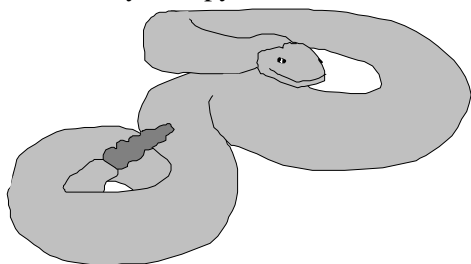
Three characteristics which indicate whether or not a snake is venomous:

- 1) **Eye shape**—Poisonous snakes generally have elliptical pupils. Non-poisonous snakes have round pupils.
- 2) **Venom pit**—Pit vipers (*which are all venomous*) have a pit midway between their nostrils and eyes. Non-poisonous snakes have no pit.
- 3) **Tail scales**—Poisonous snakes generally have a single row of scales on the underside of their tails. Non-poisonous snakes have two rows.

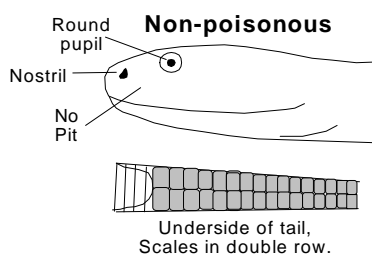
Most pit vipers found in Utah have tails equipped with a series of rattles (*hence the name: rattlesnake*). When disturbed, these snakes rapidly vibrate their tails to warn the intruder, producing a characteristic rattling sound. The volume of the rattle may vary with the size of the snake.

When temperatures drop below 50°F, snakes seek temporary or winter hibernation shelter in areas where temperatures are above freezing, such as spaces under rocks, in holes, below ground, in or under tree stumps, dense shrubs or trees, wood piles, debris, or man-made structures.

Snakes may use the same hibernation sites each year, and several hundred snakes may occupy the same site.



## Three ways to tell if a snake is poisonous



Rattlesnakes have two large movable fangs in the front of their upper jaws through which they inject venom during a bite.

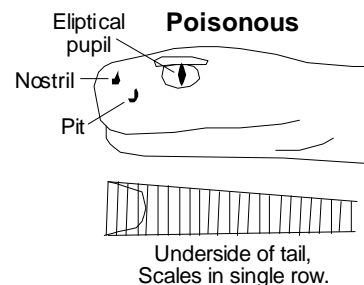
Utah rattlesnakes can be found in sagebrush, pinon-juniper woodlands, sand dunes, rocky hillsides, grasslands, and mountain forests. They live at elevations that range from sea level to timberline.

### Snakebite Hazards:

Venomous snakes living close to urban and rural areas can be dangerous if they come in contact with people, pets, or livestock. Over 7,000 venomous snake bites to humans are reported every year in the United States. Nine to 15 of these are fatal. More than half the reported snake bites result from someone trying to handle or kill a snake.

### How to avoid snakebites:

It is best to leave *any* snake you encounter undisturbed. Most snake bites occur when the victim tries to capture or kill the snake. Even dead snakes have been known to bite by reflex action. In areas you know *are* inhabited by rattlesnakes, pay close attention to where you walk, sit, or place your hands. If you hear a “rattle” from a snake, stand still until you can locate the source of the sound.



**Do not try to jump or run!** You could be running into biting range.

### How to treat a snakebite:

Non-venomous snakes are harmless. To avoid infection, clean and sterilize the wound, as you would a cut or abrasion.

- Venomous snake bites will almost instantly show signs of swelling and discoloration of surrounding tissue. Other symptoms include a tingling sensation, nausea, rapid pulse, loss of muscle coordination, and weakness. Bites from pit vipers (rattlesnakes) will also show two characteristic fang punctures, as well as other teeth marks. Get help immediately:
- 1) Call ahead to the emergency room, so anti-venom can be ready when the victim arrives.
  - 2) Keep the victim calm, restrict movement, and keep the affected area *below* heart level to reduce the flow of venom.
  - 3) Wash the bite with soap and water.
  - 4) Remove any rings or constricting items; the affected area will swell.
  - 5) Cover the bite with a clean, moist dressing, to reduce swelling and discomfort.
  - 6) Monitor the victim's vital signs (*pulse, temperature, breathing, blood pressure*). If there are signs of shock, lay the victim flat, and cover them with a warm blanket.
  - 7) Get to medical help immediately.
  - 8) Bring in the dead snake, if you can.

# Heat Hazards

Employees who work outdoors in summer heat, or who spend part of their working days in hot environments, such as foundries, laundries, construction projects, and bakeries, often face conditions which pose special hazards to safety and health.

## Heat stress causes body reactions

Four environmental factors affect the amount of stress a worker faces in a hot work area: temperature, humidity, radiant heat (such as from the sun or a furnace), air velocity. Yet personal characteristics, such as age, weight, physical fitness, medical condition, and acclimatization to the heat, may be most important to the level of heat stress faced by an individual.

## Natural mechanisms

The body reacts to high external temperature by circulating blood to the skin, increasing skin temperature and allowing the body to eliminate excess heat through the skin. However, if muscles are being used for physical labor, less blood is available to flow to the skin and release the heat.

Sweating is another means the body uses to maintain a stable internal body temperature in the face of heat. Sweating is effective only if the humidity level is low enough to permit evaporation, and if the fluids and salts lost are adequately replaced.

## How to reduce your risk

Steps a person can take to reduce the risk of heat stress: 1) moving to a cooler place, 2) reducing the work pace or load, or 3) removing or loosening some clothing, 4) drinking plenty of liquids.

## Heat stress symptoms

If the body cannot dispose of excess heat, it will store it. When this happens, the body's core temperature rises and the heart rate increases. As the body

continues to store heat, the individual begins to lose concentration and has difficulty focusing on a task, may become irritable or sick and often loses the desire to drink. The next stage is most often fainting and death is possible if the person is not removed from the heat and given proper treatment.

Heat stroke, the most serious health problem for workers in hot environments, is caused by the failure of the body's internal mechanism to regulate its core temperature. Sweating stops and the body can no longer rid itself of excess heat. Symptoms include: *Mental confusion*, delirium, loss of consciousness, convulsions or coma; *Body temperature* of 106°F or higher; *Hot dry skin*, which may be red, mottled, or bluish.

While awaiting medical help, the victim must be moved to a cool area, and his or her clothing soaked with cool water. The victim should be fanned vigorously to increase cooling. Prompt first aid can prevent permanent injury to the brain and other vital organs.

**Victims of heat stroke will die unless treated promptly.**

Heat exhaustion results from loss of fluid through sweating, when a worker has failed to drink enough fluids, take in enough salt, or both. The worker with heat exhaustion still sweats but experiences extreme weakness or fatigue, giddiness, nausea, or headache. The skin is clammy and moist, the complexion pale or flushed, and the body temperature normal or slightly higher. Treatment is usually simple: the victim should rest in a cool place and drink an electrolyte solution (a beverage used by athletes to quickly restore potassium, calcium, and magnesium salts). *Severe cases involving victims who vomit or lose consciousness*

*may require longer treatment under medical supervision.*

Heat cramps, painful spasms of the muscles, are caused when workers drink large quantities of water but fail to replace their bodies' salt loss. Tired muscles—those used for performing the work—are usually the ones most susceptible to cramps. Cramps may occur during or after working hours and may be relieved by taking liquids by mouth or saline solutions intravenously for quicker relief, if medically determined to be required.

Fainting (heat syncope) may be a problem for the worker unacclimatized to a hot environment, and who simply stands still in the heat. Victims usually recover quickly after a brief period of lying down. Moving around, rather than standing still, will usually reduce the possibility of fainting.

## Avoid Eye Injuries

[Continued from page 1]

lightly, and see a doctor if the particle does not wash out. *Do not rub the eye*  
Blow to the eye—Apply cold compress immediately to reduce pain and swelling. Seek emergency medical help in cases of pain, reduced vision, or discoloration (black eye), which could mean internal eye damage.

Cut or puncture to eye or eyelid—Bandage lightly and see a doctor at once. *Do not wash out eye with water. Do not try to remove an object stuck in the eye.*

Chemical burn—Eye damage from chemical burns (caused by alkalis or caustic acids) may be extremely serious, or less severe (caused by chemical irritants). In *all* cases of eye contact with chemicals: Hold eyelids open as wide as possible, and flood the eye immediately with water, continuing for at least 15 minutes. *Do not use an eye cup or bandage the eye.* See a doctor.

# Summer Hazard: Noise



Telephone: (801) 626-7547  
 Fax: (801) 626-6319  
 Mail Code: 3002

Richard Sandau, Manager . . . . .8004  
 Hazardous Materials/Waste  
 Hazard Communication  
 Chemical Hygiene/  
 Laboratory Safety  
 Respiratory Protection  
 EPA Compliance  
 Chemical Spill Response  
 Biological Safety

Jolene Clark . . . . .7823  
 Occupational Safety  
 Accident Prevention  
 Workers Compensation  
 Ergonomics  
 Asbestos  
 Risk Mgmt Inspections  
 Indoor Air Quality

Rich Ordyna . . . . .7891  
 Emergency Response  
 Driving Certification  
 Accident & Hazard Investigation  
 First Aid Kits/Supplies

Marlene Hardy . . . . .7547  
 Certificates of Insurance  
 Field Trip Insurance  
 Material Safety Data Sheets

Rondo Jeffery . . . . .6202  
 Radiation Safety

## Other DPS Contacts

Craig Dearden . . . . .7440  
 Public Safety Director  
 Police Chief

Roger Johnson . . . . .7220  
 Assistant Police Chief

Dennis Montgomery . . . . .7062  
 Fire Protection

Lisa Allen-Martinez . . . . .7801  
 Property/Auto/Liability Insurance



As summer approaches we begin using noise-producing yard equipment: mowers, weed eaters, chippers; farm equipment; and recreational equipment: motorcycles, boats, etc. All these activities increase our exposure to noise.



Depending on the dosage and the amount of exposure, over time this noise can cause hearing loss. If you have to raise your voice above background noise that is three feet away, the noise level is probably hazardous to your hearing.



Hearing protectors (ear plugs, ear muffs, etc.) reduce sound that enters your ears, and provides the best protection for your future hearing. But to reap the benefits, you must use hearing protection.



## Household Hazardous Waste Disposal

The Weber County Transfer Station accepts household hazardous waste from county residents the third Saturday of each month from April through September. Hours are 9:00 A.M. to 1:00 P.M. The hazardous waste facility is located at 867 West Wilson lane. (*Enter from 21<sup>st</sup> Street, east of freeway. Signs are posted.*)

### Transport instructions:

Do not combine different wastes. *Leave products in their original containers.* Seal and package containers to prevent breaking and leaking. Put leaking or corroded container inside a second container (Do not mix chemicals.) Transport containers in the trunk or back of your vehicle, *away from passengers.* Sponsors of the collection will not be responsible for improperly packaged or transported hazardous materials.

### What you can bring:

Household products containing: toxic chemicals, pesticides, herbicides, cleaners, solvents, poisons, antifreeze, pool chemicals, drain cleaners, hobby chemicals; **Automobile products:** degreasers, old gasoline, transmission fluid, any unknowns.

### What you cannot bring:

Products you may still be able to use or give away to someone who *can* use them: explosives, radioactive material, gas cylinders or pressurized tanks, ammunition, flares, infectious waste; **Material packaged in larger than residential size containers (5 gallons);** **Paint** (*dry out paint containers by using kitty litter, or by leaving the lid off. After the paint has dried, the container can be disposed in your regular garbage service.*)

**Caution: Never dispose of hazardous waste in household trash. The hazardous waste may harm sanitation workers, or start fires in the garbage collection trucks.**

For more information: Call Weber County Solid Waste at 399-8358, 399-8803, or 399-8806.