

Over the Edge

A quarterly publication for injury and illness prevention

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HEAT ILLNESS

When the body becomes over-heated, it is called heat illness. Heat stress can take on five basic forms -heat exhaustion, heat stroke, heat cramps, fainting, or heat rash. People often confuse Heat Exhaustion with Heat Stroke.

Heat Exhaustion. Although not the most serious heat related problem, heat exhaustion is very common. Heat exhaustion happens when a worker sweats a lot and does not drink enough fluids or take in enough salt or both.

Signs and symptoms

- Sweaty
- Weak or tired, possibly giddy
- Nausea
- Normal or slightly higher body temperature
- Pale, clammy skin (sometimes flushed)



What to do

- Rest in a cool place
- Drink an electrolyte solution, such as Gatorade or another sports drink. Avoid caffeinated beverages such as colas, iced tea or coffee.
- In severe cases involving vomiting or fainting, have the worker taken to the hospital.

Heat Stroke. Heat stroke is the most serious health problem for people working in the heat, but is not very common. It is caused by the failure of the body to regulate its core temperature. Sweating stops and the body cannot get rid of excess heat. Victims will die unless they receive proper treatment promptly.

Signs and symptoms

- Mental confusion, delirium, fainting, or seizures
- Body temperature of 106°F or higher
- Hot, dry skin, usually red or bluish color

What to do:

- Call 9-1-1 immediately and request an ambulance
- Move victim to a cool area
- Soak the victim with cool water
- Fan the victim vigorously to increase cooling

Prevent Heat Illness

- Clothing: Wear loose-fitting, lightweight clothing, such as cotton, to allow sweat to evaporate. Light colors absorb less heat than dark colors. When working outside, wear a lightweight hat with a good brim to keep the sun off your head and face.
- Drinking: Drink plenty of liquids, especially if your urine is dark yellow, to replace the fluids you lose from sweating – as much as one quart per hour may be necessary. Water and/or sports drinks are recommended. Since caffeine is a diuretic (makes you urinate more), beverage such as cola, iced tea and coffee should be avoided. Thirst is not a reliable sign that your body needs fluids. When doing heavy work, it is better to sip rather than gulp the liquids.

- Work Schedule: If possible, heavy work should be scheduled during the cooler parts of the day.

Drink plenty of fluids and be on the lookout for signs of heat stress. You can access a calculator to determine the Heat Index (HI) at <http://www.weatherimages.org/data/heatindex.html>

STAY OUT OF THE SUN

Sunlight damage to skin causes premature skin aging, skin cancer, and other skin changes. Exposure to ultraviolet light, UVA or UVB, from sunlight accounts for 90% of the symptoms of premature skin aging. Many skin changes that were commonly believed to be due to aging are actually a result of prolonged exposure to UV radiation. The sun gives off ultraviolet radiation that are divided into categories based on the wavelength.

UVC radiation - 100 to 290 nm – generally does not affect the skin. UVC radiation can be found in sources such as mercury arc and germicidal lamps.

UVB radiation - 290 to 320 nm - affects the outer layer of skin and is the primary agent responsible for sunburns. It is most intense between the hours of 10 am and 2 pm when the sunlight is brightest. It is also more intense in the summer months, accounting for 70% of a person's yearly UVB dose. UVB does not penetrate glass.

UVA Radiation - 320 to 400 nm - was once thought to have a minor effect on skin damage, but now studies are showing that UVA is a major contributor to skin damage. UVA penetrates deeper into the skin. The intensity of UVA radiation is more constant than UVB without the variations during the day and throughout the year. UVA is also not filtered by glass.

Damaging Effects of UVA and UVB - Both UVA and UVB radiation can cause skin damage including wrinkles, lowered immunity against infection, aging skin disorders, and cancer. Visible skin changes caused by UV radiation include:

- **Texture Changes** - UV exposure causes thinning of the skin causing fine wrinkles, easy bruising, and skin tearing.
- **Blood Vessel Changes** - UV radiation causes the walls of blood vessels to become thinner, leading to bruising with only minor trauma in sun-exposed areas.
- **Pigment Changes** - The most noticeable sun-induced pigment change is a freckle. Large freckles, also known as age spots or liver spots, can be seen on the backs of the hands, chest,

shoulders, arms, and upper back. These are not age related but signs of sun-damage.

- Skin Bumps - UV radiation causes an increased number of moles in sun-exposed areas.
- Skin Cancer - Melanoma is the most deadly skin cancer because it metastasizes more readily than other skin cancers. It is believed that the amount of exposure of the skin to the sun before the age of 20 is actually the determining risk factor for melanoma.

FEEDING CATS ON CAMPUS – BAD IDEA

Background. Feral cats are domesticated cats that have left home to live in the wild, or they are descendants of those cats. They are usually not friendly, and in situations where they appear friendly, they can suddenly strike out if they feel threatened. It is not generally possible to predict when or which cat might bite or scratch. No aspect of their habits can be reliably controlled. As such, it is not possible to adequately control a cat population.

Health Issues. Feral cats are rarely vaccinated and so the diseases that are transmitted by domestic cats are more prevalent in feral cats. Some of these diseases include cat scratch fever, rabies, plague, ringworm, salmonellosis, and toxoplasmosis. In fact, most feral cats (up to 80%) test positive for toxoplasmosis. Feral cats may carry a host of other organisms that pose a danger to humans. These include fleas and ticks. Flea bites cause irritation but also serious allergies in susceptible populations. Fleas, once established, can be difficult to eradicate. Cat ticks carry *Borrelia burgdorferi*, a spirochete that can infect humans and cause joint disorders and lameness.

Another route for disease transmission is through contact with cat feces. Fecal matter often contains salmonella typhimurium. Cats are not fastidious and they will relieve themselves anywhere - a favorite place is anywhere they can dig, such as in kindergarten sandboxes and play areas.

Many people are allergic to cat hair. Feral cats often have skin and fur medical issues and they willingly rub up against solid objects to remove matted hair and to scratch themselves. This can create severe allergy exposure issues. It can trigger asthma attacks. Some allergies are sensitive enough that cats simply walking nearby can trigger a reaction. Without a clear exposure to a cat, susceptible individuals may misdiagnose their allergy problems and blame unrelated issues such as indoor air quality.

In areas where dog rabies has been essentially eliminated, such as in California, cats are often the

most significant animal transmitting rabies to humans. In 2011, an 8 year old student from Humboldt was scratched by a feral cat on or near elementary school grounds. She developed rabies, but became only the 3rd person in the US to survive rabies. Rabies is almost always fatal.

Building Issues. Feeding of feral cats occurs outdoors. The food attracts a variety of other pests such as ants, rats, mice, skunks, opossums, raccoons, and also attracts any predator that feeds on these animals such as snakes. Ants, rats, and mice are opportunistic and will invade classrooms in search of more food. The availability of food also attracts more feral cats, and colonies grow. Cats damage buildings in their search to find shelter and mate. The entrances that cats create in and under buildings are then used by other animals to gain entry. Males will also mark their territory by spraying urine.



Conclusion. Feral cats are much more likely to die from a variety of preventable cat diseases than their domestic counterparts. These cats live a more dangerous life in the wild and are exposed to more predators and diseases, they tend to live much shorter lives, averaging only 5 years. Due to fighting and chronic disease, feral cats have a much lower quality of life than domestic cats. As a school district, the primary concern must be for the safety of the students, public, and staff. Documented cases of students being injured from feral cats on school grounds are far too common. Feral cats present too great of a hazard to allow them to occupy school grounds. The only acceptable plan of action is to remove the cats and take all possible precautions to eliminate feral cats from the school.

Recommendations

1. Stop the practice of feeding cats immediately. Remove all food from outside areas and dispose of all cat food on the premises.
2. Require the staff to shoo cats away when they are seen. This will help to make the living conditions for the cats less desirable.
3. Set traps for the cats that do not leave. Give the trapped cats to the local animal control.
4. Eliminate cat harborages such as brush piles.
5. Eliminate cat access to buildings by sealing openings to structures.
6. Ensure dumpsters and garbage cans have tight fitting doors and lids that are kept closed.
7. Institute a training program for employees and students regarding the feral cat hazards faced by humans and the difficulties feral cats face living in the wild.