

Bat Safety and Risk Management at Camps

The United States is home to more than 40 varieties of bats. They eat many insects harmful to humans and agriculture, including night flying beetles and moths. However, some bats may be infected by and transmit the rabies virus. Most of the recent human rabies cases in the United States have been caused by rabies viruses associated with bats. Awareness of the facts about bats and rabies can help you protect yourself and your campers. This information may also help clear up misunderstandings about bats.

Camps are usually located in areas that are prime habitat for bats and other wildlife, and the type of construction in camp buildings is often conducive to roosting bats. Bats are frequently encountered in the camp setting. If people are sleeping in cabins with bats, or children are handling bats found on the ground, rabies exposures can occur. Bats that are infected with rabies are often mistaken for injured animals when they are found flopping around on the ground. Abnormal behavior seen in rabid bats includes being on the ground, landing on someone, and flying during the day. Occasionally, there is no obvious abnormal behavior, so all contact with bats and other wild animals should be reported to the camp nurse.

To reduce the risk of rabies and the need for large-scale exposure investigations and post-exposure treatments, **health and environmental authorities recommend that:**

- camp directors and managers obtain training on rabies risks
- rabies disease information is provided by camp management to all camp staff and attendees at orientation sessions
- such information should be reviewed by local health departments or other public health experts

Reduce exposure to bats

Bats are a necessary and beneficial part of our environment and common in summer camp settings. Two recommendations to reduce bat exposure when in the camp environment are to 1) bat-proof when possible, and 2) use mosquito netting.

Inspections

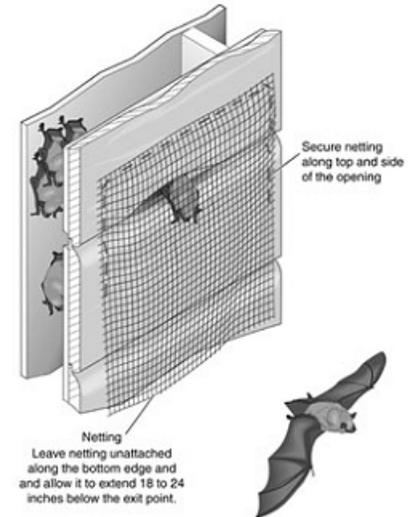
Inspections should take place every spring before the camp opens to decide which cabins will be used for sleeping. Inspections should include:

- inspecting attic space, rafters, porches, and walls for signs of roosting bats, such as bat guano and crystallized urine, or a musty odor
- looking for openings through which bats could get into sleeping quarters, such as openings larger than 1/2 inch by 1/2 inch and long thin slots larger than 1/4 inch by 2 inches
- not allowing cabins with evidence of bat roosts to be used as sleeping quarters until they have been bat proofed

Bat-Proofing

Bats may use buildings as shelter from weather or from other animals. Bats can enter a building through very small spaces ($\frac{1}{2}$ - $\frac{1}{4}$ inch). If the camping environment has cabins or shelters that could be bat-proofed, follow these recommendations to exclude the bats.

- Bat-proof only in the winter or early spring (from first frost to first thaw) as most bats leave in the fall and winter to hibernate. This will also prevent young bats that are unable to fly from being trapped inside the structure.
- Observe where the bats exit at dusk and exclude them by loosely hanging clear plastic sheeting or bird netting over these areas. Bats can crawl out and leave, but cannot re-enter (see figure).
- After the bats have been excluded, the openings can be permanently sealed.
- Fill holes with caulk, steel wool, or mesh hardware cloth.
- Keep window screens in good repair and don't leave doors open.



Mosquito Netting

When used properly, mosquito netting will prevent exposure to both mosquitoes and bats while sleeping. The use of netting is recommended when screening is not an option.

- Mosquito netting should be elevated above the camper and cover the length of the mattress. Poles can be attached to the ends of the bed (see picture for example).
- Mosquito netting should be inspected on a regular basis to ensure it is free of holes.
- Netting should be tucked under the camper's mattress.
- At the end of the camping season, store netting in rodent-proof containers.



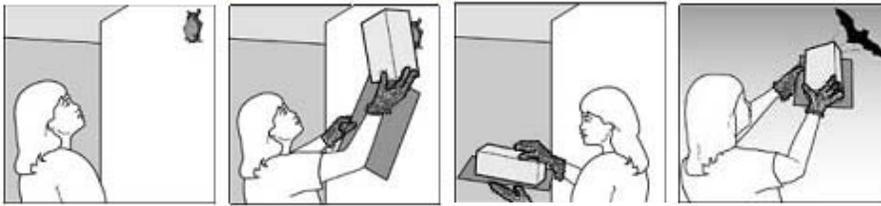
Picture of mosquito netting over a bunk bed. Mosquito netting can be used when cabins or tents are not already screened. Picture courtesy of the Girl Scouts of the Nations Capital.

Removing Bats

If you are certain that the bat had no physical contact with any person or animal within the cabin or shelter, then the bat should be returned to the wild. If the bat has come in contact with someone, it should be captured and tested for rabies (See below for what constitutes a bat exposure).

Removing a bat from a wall or the floor is a simple process:

1. Put on leather or other suitable work gloves.
2. Take a box or plastic container and a flat piece of cardboard.
3. Wait for the bat to roost on a wall or floor.
4. Slowly approach the bat and cover it with the box.
5. Keeping the box flat against the wall, slide the cardboard between the wall and the bat.
6. Once the cardboard is visible on all sides of the box, lift both the box and the cardboard away from the wall.
7. Take the box, covered by the cardboard, outside and set it on a table or railing.
8. Remove the cardboard from the top and return to the house. The bat will fly away on its own.



Picture courtesy of
Bat Conservation
International
www.batcon.org

What to do if a person has contact with a bat

If you or a camper are bitten by or exposed to a bat -- including saliva from a bat that gets into your eyes, nose, mouth, or a wound -- wash the affected area thoroughly and get medical advice immediately.

People usually know when they have been bitten by a bat. However, bats have small teeth which may leave marks that are not easily seen (see picture). In the following circumstances, a person should seek medical advice and have the bat tested for rabies:

- If you or a child awaken and find a bat in your room
- If you see a bat in the room of an unattended child
- If you see a bat near a person with disabilities



Picture of bat bite on finger. Picture courtesy of CDC.

In all of these circumstances, contact your local or state health department for assistance with medical advice and testing bats for rabies. To capture the bat for testing, follow the procedures above for trapping the bat, but tape the cardboard to the top of the box. Avoid damaging the bat when capturing it. Shaking or smashing the bat can damage the brain and render it untestable.

People cannot get rabies just from seeing a bat outside, in a cave, or at a distance. In addition, people cannot get rabies from having contact with bat guano (feces), blood, or urine, or from touching a bat on its fur. Despite this, bats should never be handled.

Zoonotic Disease Program
Bureau of Infectious Disease Control
Ohio Department of Health
Phone (614) 752-1029, option 2



* Credit for this document goes to CDC, Girl Scouts of the United States, and the American Camp Association.