



*Photograph of little brown myotis taken by J. Scott Altenbach. Brown bats are frequently encountered in houses throughout Nebraska. In July of 1997 alone, over 270 bats were removed from homes in the Omaha area. Only one bat was found to carry rabies in Nebraska during 1997. (Used by permission)*

## **Health Risk of Common Bats**

by Steven H. Hinrichs, M.D.

Several stories in the news this past summer caused attention to be focused on the health risk to humans following contacts with bats. Pathologists and technologists should be prepared to provide timely information to the public and local physicians regarding transmission to humans by bats. Since 1980, there have been 28 cases of human rabies acquired in the United States, and over half were caused by virus strains associated with bats. Ten of the fifteen cases caused by bat rabies viruses were of the virus strain found in the silver-haired bat. In 1995, two children died of rabies and although bats were present in the houses, no contact with bats had been recognized prior to the onset of rabies. In fact, the majority of the 15 patients who died since 1980 with rabies caused by a bat virus did not document or report a bat bite. While this information has raised concern regarding the possibility of transmission by aerosolized virus, it is believed that transmission was due to an unrecognized bat bite or scratch.

It is recommended that in situations where a bat is found in sleeping quarters or bedrooms and the possibility of bite exposure cannot be excluded, post-exposure prophylaxis should be

given unless the bat can be captured and tested for presence of rabies<sup>1</sup>. The first case of rabies caused by virus from a brown bat was documented in 1997. To our knowledge, no brown bat has been found to transmit rabies to humans in Nebraska. However, a migratory bat, called the hoary bat can be found in Nebraska in the spring and fall and in some surveys up to 50% of these bats carry the rabies virus. Epidemiologic surveys are planned in the coming year to document the frequency of rabies in specific bat species in Nebraska.

This information does not call for a full-scale extermination of bats, especially in light of the valuable role they play in reducing mosquito and other flying insect populations. The risk of rabies to humans from bats in Nebraska appears to be very low. However, appropriate public awareness is needed and if an incidental bat exposure occurs the following steps should be taken:

- 1) Notify the Rabies Control Officer at the Nebraska Department of Health; Ph. #(402) 471-2937, and obtain approval for submission of bat (or other animal) to NPHL;
- 2) Do not damage the head when killing the animal. Keep refrigerated if not able to transport immediately.
- 3) Transport bat to NPHL. Proper packaging includes placing the animal in double containment, usually plastic bags and labeling as hazardous medical samples. Species can be transported in the U.S. mail with cold packs. A rabies form for documentation of essential information should accompany the specimen which can be obtained by calling (402) 559-2440.

To some degree, these stories detract from the equally important risk to humans and domestic animal from skunks and raccoons that carry rabies. We should make every effort to encourage vaccination of dogs and cats in our communities since this is one of the most effective ways to practice public health.

1) Centers for Disease Control and Prevention. Human Rabies—Connecticut, *MMWR*; **45** 207-209, 1996.