



BAT-RELATED HEALTH CONCERN FACT SHEET

Compiled by Delaware Division of Fish and Wildlife, July 2010

RABIES¹ A preventable viral disease, rabies affects all mammals and is most often transmitted through the bite of a rabid animal. Once symptoms have developed, rabies is lethal. Only a few exceptions exist.

Human rabies cases are very rare in the United States, and most animal rabies cases in this country occur in wildlife species, including raccoons, foxes, skunks, and bats. Human cases have occurred from unknown exposure to rabid bats. An animal with rabies may have a change in behavior. Any wild animal acting strangely, or that is very docile, should NOT be handled by the public. Make children aware of this to protect them from accidental exposure. The most common rabies carrier in Delaware is the raccoon.²

RABIES AND BATS³

- ✦ Most bats do NOT have rabies. According to the Centers for Disease Control only about 6% of all bats captured, euthanized, and laboratory tested are positive for the rabies virus. There are many reasons a bat may be on the ground that are not associated with rabies. Care should still be taken around grounded bats.
- ✦ You cannot get rabies from a bat flying near you or being present inside your house. Contact with blood, urine, feces/guano, or fur of a rabid animal does not constitute a rabies exposure.
- ✦ Bats become infected with rabies as individuals (not as colonies), and research from Colorado⁴ indicates that bats have natural antibodies to fight and survive the rabies virus.
- ✦ If a bat is found in a room with a sleeping adult, child, or intoxicated person and they aren't sure if they were bitten - that individual should seek medical advice. If the bat can be safely captured, it should be tested for rabies.
- ✦ Any person who handles a bat with their bare hands and is bitten (even if it does not break the skin), should seek medical attention for possible rabies exposure.
- ✦ **What to do if you think you've been exposed:** Take a deep breath! Even if bitten by a rabid animal, the disease can be prevented in humans by administration of rabies vaccination. It is urgent for the person who thinks they have been exposed to rabies to begin rabies post-exposure prophylaxis. You can call the Delaware Rabies Hotline (866-972-9705) for guidance. Also call your doctor and proceed to the emergency room – many doctor's offices do not have the vaccine on hand. If there is a bite or other injury involved, clean the wound thoroughly and treat with a topical antibiotic to prevent a secondary infection.

HISTOPLASMOSIS^{5,9} (*Histoplasma capsulatum*): is a disease-causing fungus, and if the spores of the fungus are inhaled, a person's lungs can be affected. Histoplasmosis can affect the eyes. Symptoms vary, often being similar to the flu – but can range from undetectable to serious. In a fraction of cases, histoplasmosis is thought to have a possible effect on the patient's vision as well, and people who think they have histoplasmosis exposure should be examined by a health professional, tested and if positive for the fungus, treated⁹. This is why proper prevention of exposure is important. A person who has histoplasmosis is not contagious. *Exposure from bat guano is preventable!*



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Histoplasmosis spores can be present and not affect anyone as long as they are not disturbed. Those most often exposed to histoplasmosis spores are people who work in professions that include disturbing soil, surfaces or guano where the fungus can be present: bridge inspectors or painters, chimney cleaners, construction workers, demolition workers, farmers, gardeners, heating and air conditioning service people, microbiology lab workers, pest control technicians, restorers of historic or abandoned buildings, roofers, or spelunkers (cave explorers).

- ✧ As long as the soil or feces of bats and birds are not disturbed, the spores that cause histoplasmosis are not a threat to people in the area.
- ✧ If the droppings do need to be removed – ex: prior to demolition, real estate transactions, or for other reasons, it can be safely done by a professional or by the property owner if they take proper precautions. Wearing a protective face mask (*elastomeric or rubber half-facepiece respirator with replaceable particulate filters*) and coveralls, use of a HEPA-vac, as well as wetting down the guano prior to clean up is advised. Look up guano disposal guidelines for your area.

CRYPTOCOCCUS⁸ is a fungus found in bird droppings, that when the spores have been disturbed in the substrate and inhaled, have a similar effect on the human respiratory system that Histoplasmosis does. According to the Centers for Disease Control, there are two strains of Cryptococcus that can affect humans. This fungus is primarily found in bird droppings from bird nests and roosting areas in attics, copulas, and other structures – which are sometimes roost areas shared with bats. See a health care professional if concerned about this fungus.

BAT BUGS^{6,7} are small ectoparasitic insects that bite and feed specifically on bats' blood. If bats are excluded from a house, the bat bugs will not persist because they need their host to complete their lifecycle. In search of a meal, bat bugs have on occasion bitten rodents, birds, or people. They are not known to transmit any diseases to humans. Bat bugs look similar to bed bugs. The pest control methods for bat bugs are very different than for bed bugs. If a person is excluding bats and suspects there are bat bugs in the living space, they should capture and save the 1/4th inch long insect and have it verified by an expert. Homeowners should talk to the pest control providers about bat bug control as follow-up if needed to the bat exclusion process. No pesticides or chemicals should be used while bats are still present. Only licensed pesticide applicators should handle and apply any chemicals.

1. www.cdc.gov/rabies/
2. www.dhss.delaware.gov/dhss/dph/dpc/rabies.html
3. www.cdc.gov/rabies/bats/index.html
4. www.vivo.colostate.edu/bats/rabies_local.html
5. www.cdc.gov/niosh/docs/2005-109/pdfs/2005-109.dpf
6. www.cdph.state.co.us/dc/zoonosis/bedbug.pdf
7. www.ipm.iastate.edu/ipm/iin/batbu.html
8. <http://www.cdc.gov/nczved/divisions/dfbmd/diseases/cryptococcus/index.html>
9. <http://www.nei.nih.gov/health/histoplasmosis/histoplasmosis.asp#2>

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