Environmental Health and Safety

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Bird Droppings and Histoplasmosis

Are Bird Droppings a Health Hazard?

Fresh bird droppings on surfaces, such as sidewalks and window sills, have not been shown to present a health risk for histoplasmosis because birds themselves do not appear to be infected by the fungus, *Histoplasma capsulatum*. However, in areas where soil is enriched with bird droppings the risk of finding the fungus increases.

How Do You Get Histoplasmosis From Bird Droppings?

Histoplasma capsulatum fungus grows best in soil and materials with a high nitrogen content, especially those enriched with bird or bat droppings, such as in poultry house litter, caves, areas harboring bats, and in bird roosts. The fungal spores become airborne when the contaminated soil is disturbed. Breathing the spores causes infection. The disease is not transmitted from an infected person to someone else.

Who is at Risk of Getting a Disease from Bird Droppings?

Anyone can get histoplasmosis. Infants, young children, elderly persons, and people with chronic lung disease, cancer, or AIDS are at increased risk for severe disease.

Occupations and hobbies such as those listed below increase your risk for exposure to *Histoplasma* capsulatum spores. If you perform any of these activities, you should take appropriate exposure precautions whenever soil contaminated with, bat or bird droppings are disturbed:

- bridge inspector or painter
- construction or demolition worker
- roofer
- restorer of historic or abandoned buildings
- heating and air-conditioning system installer or service person
- pest control worker
- farmer
- gardener
- spelunker (cave explorer)
- microbiology laboratory worker

If you develop flu-like symptoms days or even weeks after disturbing material that might be contaminated with *Histoplasma capsulatum*, and the illness gets worse rather than subsiding after a few days, seek medical care and inform the health care provider about your exposure.

What are the Symptoms of Histoplasmosis?

Most infected persons have no apparent ill effects. If symptoms occur, they will start within 3 to 17 days after exposure. Histoplasmosis primarily affects the lungs. Symptoms may include respiratory symptoms, a general ill feeling, fever, chest pains, and a dry or nonproductive cough. Occasionally, other organs are affected. This form of the disease is called disseminated histoplasmosis, and can be fatal if untreated.

Mild histoplasmosis usually resolves without treatment. Antifungal medications are used to treat severe cases and chronic or disseminated histoplasmosis. Past infection with *Histoplasma capsulatum* results in partial protection against ill effects if you become reinfected.

How Can I Avoid Getting Histoplasmosis?

It is not practical to test or decontaminate most sites that may be contaminated with *Histoplasma* capsulatum, so it is safest to assume that accumulations of bird or bat droppings are contaminated and use the following precautions to reduce your risk of exposure:

- Take measures to keep birds and bats out of buildings.
- Avoid areas that may harbor the fungus, such as accumulations of bird or bat droppings if possible.
- Control aerosolized dust to prevent inhalation when removing bat or bird manure from a building, and during construction, excavation, or demolition.
 - Carefully wetting the droppings with a water spray to suppress dust may be useful for reducing the amount of material aerosolized during an activity.
 - Wear a NIOSH-approved respirator and other items of personal protective equipment to further reduce the risk of *Histoplasma capsulatum* exposure.
 Note: only persons trained in the proper selection and use of personal protective equipment should undertake work where this equipment is needed.
 - Before starting a job or activity that may expose you to *Histoplasma capsulatum*, consult the document *Histoplasmosis: Protecting Workers at Risk*, published by the National Institute for Occupational Safety and Health and the National Center for Infectious Diseases. It contains detailed information on work practices and personal protective equipment that will reduce your risk of infection.

Where Can I Get More Information on Histoplasmosis?

 National Institute for Occupational Safety and Health, Histoplasmosis: Protecting Workers at Risk website

•	Centers for Disease Control and Prevention	(800) 532-9929	1
•	Iowa Department of Public Health	(515) 281-6493	,
•	Iowa State University Occupational Medicine Office	(515) 294-2056	i
•	Iowa State University Student Health Center Health Education Office	(515) 294-7968	,
•	City of Ames Sanitation Office	(515) 239-5158	