

Protocol #21

Histoplasmosis

I. Purpose

The purpose of the Pennsylvania Department of General Services (DGS) Histoplasmosis Program is to reduce the risk of histoplasmosis infection for all employees that have the potential to encounter bat or bird feces.

II. References

Center for Disease Control and Prevention:

<https://www.cdc.gov/fungal/features/histoplasmosis.html>

National Institute for Occupational Safety and Health:

<https://www.cdc.gov/niosh/topics/histoplasmosis/>

III. Definitions

Histoplasmosis: An infection caused by the fungus Histoplasma. The fungus lives in the environment, particularly in soil that contains large amounts of bird or bat droppings. Its symptoms vary greatly, but the disease primarily affects the lungs. Occasionally, other organs are affected. This form of the disease is called disseminated histoplasmosis, and it can be fatal if untreated.

Accumulated bird or bat droppings: For the purpose of this safety program; accumulated bird or bat droppings will be defined as an amount of dropping that can easily be scooped up with a standard square point shovel.

IV. Responsibilities

Safety Coordinator:

1. Provide guidelines and information to the Manager/Shop Supervisors when they or their employees are confronted with potential exposures to histoplasmosis.
2. Evaluate any questionable situation regarding bird or bat droppings and will provide direction to the Manager/Shop Supervisor.

Manager/Shop Supervisor

1. Inspect work area(s) to ensure employees are not exposed to accumulated bird or bat droppings.

2. Ensure employees follow the proper guidelines when exposed to accumulated bird or bat droppings.
3. If applicable, ensure employees are using the correct personal protective equipment (PPE) to clean accumulated bird or bat droppings.

Employees

1. Notify their supervisor of any accumulated bird or bat droppings that they discover.
2. Follow the guidelines and procedures relating the exposure to accumulated bird or bat droppings.
3. Wear proper PPE as instructed.

V. Safe Operating Procedures

Upon the discovery of bird or bat droppings

1. Determine if the definition of accumulated bird or bat droppings has been met.
 - 1.1. Upon the discovery of accumulated bird or bat droppings**
 - If an employees' task would expose them to accumulated bird or bat droppings the Manager/Shop Supervisor should contact the DGS Fire, Safety and Environmental Section for direction.
 - If possible, once the droppings are cleaned up, all reasonable efforts should be taken to exclude birds or bats from the area.
2. If there is no "accumulation" but there are bird or bat droppings that must be cleaned up:
 - 2.1. Don PPE.
 - 2.2. Make sure the droppings are carefully wetted with normal water (if possible, try to spray dropping down a drain using a garden hose.)
 - 2.3. Scoop material with a shovel or trowel or wipe with disposable cloths and place droppings into a standard plastic bag.
 - 2.4. It is important to prevent the material from becoming particulates and airborne, so it is always important to wet the droppings before any clean-up operation.
 - 2.5. Dispose of the droppings and any contaminated disposable rags in a normal trash bag and place the trash bag in a trash receptacle outside of the building.
 - 2.6. Clean all non-disposable tools.

3. If any employees are/were exposed the Manager/Shop Supervisor should instruct the employees to be aware of the symptoms of Histoplasmosis and report these symptoms to their supervisor as soon as they begin.

VI. Training

Training will consist of shop discussions and the applicable trades will receive an information sheet consisting of the highlights of histoplasmosis exposure (Appendix A).

Appendix A: [Histoplasmosis Fact Sheet](#)

(follow link to PA Department of Health for latest information)

About Histoplasmosis

1. **What is Histoplasmosis?** - Histoplasmosis is a disease caused by the fungus *Histoplasma capsulatum*.
2. **Can anyone get Histoplasmosis?** - Yes. Studies have shown that between 50 and 80 percent of people living in areas where *H. capsulatum* fungus is common, such as the eastern and central United States have been exposed at some point in their lifetime. Infants, young children, and older persons, in particular those with chronic lung disease, are at increased risk for severe disease. Disseminated disease, where the organism spreads in the body, is more frequently seen in people with cancer or AIDS.
3. **Where is *H. capsulatum* found?** - *H. capsulatum* fungus is found throughout the world and is endemic in certain areas of the United States. *H. capsulatum* grows in soil and material contaminated with bat or bird droppings. The fungus has been found in poultry house litter, caves, areas harboring bats, and in bird roosts.
4. **How is someone infected with *H. capsulatum*?** – Fungus spores become airborne when contaminated materials are disturbed. Breathing the spores causes infection. The disease is not transmitted from person to person or from animals to people.
5. **What are the symptoms of Histoplasmosis?** - Most infected persons have no apparent ill effects. The acute respiratory disease is characterized by respiratory symptoms, a general ill feeling, fever, chest pains, and a dry or nonproductive cough. Distinct patterns may be seen on a chest x-ray. Chronic lung disease resembles tuberculosis and can worsen over months or years. The disseminated form is fatal unless treated.
6. **When do symptoms start?** - If symptoms occur, they will start within 3 to 17 days after exposure; the average is 10 days.
7. **Is Histoplasmosis treatable?** - Yes. Prescription antifungal medications are used to treat severe cases of acute disease and all cases of chronic and disseminated disease. Mild disease usually resolves within a month without treatment. Past infection results in partial protection if re-infected and is likely to result in milder disease.
8. **What can be done to prevent Histoplasmosis?** - It is not practical to test or decontaminate most sites where *H. capsulatum* is found, but the following precautions can be taken to reduce a person's risk of exposure:
 - a. Avoid areas that may harbor the fungus, e.g., accumulations of bird or bat droppings.
 - b. Before starting a job or activity having a risk for exposure to *H. capsulatum*,

seek out and comply with work practices and personal protective equipment guidance based on the DGS protocol.

9. For more information about Histoplasmosis visit the CDC website:
<https://www.cdc.gov/fungal/features/histoplasmosis.html>

This fact sheet provides general information. Before starting a job or activity having a risk of exposure, please contact the DGS Safety Coordinator.