

Can People Catch Aspergillosis?

This fungus, common in hot and humid environments, can affect people and pet birds.

By Rebecca Sweat

Aspergillosis has been, and continues to be, a serious disease threat to companion parrots. It is mainly an infection of the respiratory tract, which is caused by the fungus *Aspergillus*, a common soil-borne organism. Left untreated or if not diagnosed early, aspergillosis is often fatal to birds.

But this is not just a disease birds can get. People can also become infected with *Aspergillus*. Immunocompromised people are the most susceptible — those with HIV/AIDS, taking high doses of steroids, undergoing chemotherapy or the very old or very young.

"People get aspergillosis the same way birds do — when they breathe in too many *Aspergillus* spores or if they're in a weakened condition and cannot fight off the infection," noted Jeffrey Jenkins, DVM, an avian veterinarian in San Diego, California. *Aspergillus* is found worldwide, particularly in hot and humid climates. "*Aspergillus* is literally everywhere in the environment," Jenkins said. "You inhale these fungal spores all the time."

Usually the amount of spores inhaled is not enough to cause disease, and most people have strong enough immune systems to defend themselves from a "normal" amount of spores. However, a person in good health may contract aspergillosis if he or she takes in excessive amounts of the fungus. That could happen, for instance, if the person lives in a very old house with moldy walls or if mold is allowed to grow in a basement after flooding. A person in poor health may get aspergillosis if even a "normal" amount of spores are taken in.

The majority of aspergillosis infections occur during the late summer and autumn. "During warm, humid weather, the fungus grows like crazy and it sporelates. Then when the days get dry, the dust and the spores are blown into the air, and the spore count goes way up," Jenkins explained.

In people, aspergillosis can take several forms, ranging from an allergy-type illness to life-threatening generalized infections.

The mildest form of the disease is called Allergic Bronchopulmonary Aspergillosis. The symptoms are similar to those of asthma: coughing and wheezing, along with intermittent periods of general malaise. The treatment is with steroids by aerosol or mouth.

If enough spores are inhaled, fungi begins to germinate inside the cavity of the lung and large granulomas (growths) form. This is known as aspergilloma and chronic pulmonary aspergillosis. In this form of the disease, the fungus secretes toxic and allergic products, which may make a person feel ill. An affected person may have no symptoms in the early stages of the disease. Eventually, the infected person will experience weight loss and chronic coughing, lethargy and a general "run down" feeling. The diagnosis is made by X-rays, scans of lungs and blood tests. Treatment is with antifungal drugs such as voriconazole, caspofungin, itraconazole or amphotericin B. Surgery may also be warranted.

Aspergillus spores can also penetrate the sinuses, leading to a granuloma or fungal mass inside the sinuses and deep inside the skull. Treatment can be a combination of antifungal drugs and surgery.

Prognosis is usually good if the disease is caught early and is not allowed to progress.

Just as is true with birds, Jenkins said, "the earlier treatment is started, the better the chances of survival and the better your odds for a full recovery."