

Disease Caused by Pest Birds

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What is a Disease?

When normal body functions become disrupted due to a foreign invader or an internal malfunction, we call the disruption a disease. Diseases caused by foreign invaders are called infectious diseases. The invading agents that account for the majority of infectious diseases are grouped in the following five categories; viruses, bacteria, mycotic (fungal), protozoal and rickettsial. From a layman's standpoint, the classification and definitions of disease are less important than how these diseases spread and how can we protect. The general public's affection toward birds translates into a serious underestimation of the health risks associated with pest birds. People who would never tolerate a colony of rats living in their attic will turn a blind eye towards pigeons entrenched in the rafters of their roof. Yet, in terms of disease and damage, the two pests are quite similar. In order to better understand how nuisance birds (or rats for that matter) spread disease we need to understand the basics of disease and transmission.

Fortunately, human interaction with most bird species is minimal, thus drastically reducing any health threat from most birds. However a few bird species have successfully adapted to our urban environment. The pigeon, starling and house sparrow have learned to thrive living in our buildings and eating our food. Their adaptation to our communities has brought them into close proximity to humans. These three non-native birds have become a major nuisance in our cities and they pose a serious health risk.

How Pest Birds Harbor and Spread Disease

The five types of infectious agents listed above can be associated with birds in the following ways: the disease lives in the bird and is passed on when the bird defecates; the disease lives in the birds surrounding environment and is spread by the birds lifestyle; the disease lives inside a parasite that the bird harbors. From understanding how the bird harbors diseases we can demonstrate the four ways the diseases are passed by the bird to humans.

Food & Water Contaminated with Feces

The most obvious example is when the diseased bird directly defecates into a human food or water source. In the summer of 93, New York faced a health crisis when several hundred people came down with a mysterious ailment. The illness was traced to sea gull droppings in an old city reservoir. Health inspectors are quick to shut down a food processing plant if nuisance birds are found inside. Besides



A nasty pigeon nest, consisting mainly of droppings and twigs, plays host to many parasites and diseases that can easily be passed to humans.

direct contamination, airborne spores from drying feces in air ducts and vents can settle on exposed food and transfer disease. Several thousand cases of food poisoning (Salmonella) every year are attributed to this disease transmission route.

Inhalation of fecal dust

As bird feces and/or the contaminated soil it rests on, dries or is disturbed, microscopic pieces break off and become airborne. These airborne particles can contain dormant fungi and/or bacteria. When breathed into the lungs, the warm, moist environment of the lung lining provides a breeding ground for the infectious agents. Common symptoms of this type of infection are flu like in nature: coughing, elevated temperature, restricted breathing and general body fatigue, and last roughly two to four days. The vast majority of the time, the bodies defenses will contain the invaders even before minor symptoms appear but in a small percentage of cases, major infection causing long term disability and even death occurs. It is worth noting that there is no known medical cure for internal fungal infections. After the Northridge earthquake, several thousand people came down with flu like respiratory symptoms. The ailment was called Valley Fever and was caused by people breathing in dust and airborne debris filled with histoplasmosis spores and related fungal agents stirred up by the earthquake.

Direct contact with feces

Infection occurs when a worker or resident gets fecal dust or droppings in an open wound or cut. This commonly occurs when handling old rusty, sharp porcupine wire ledge products which are covered with bird feces. The wound site becomes red, puffy and puss-filled. Antibiotics are often needed to cure the infection. In some rare cases, infection of the blood (Septis) or internal infection can also occur causing serious illness or death. Proper attire and care must always be used when cleaning a bird site or installing bird control products. If a cut or injury occurs, thoroughly wash and disinfect the wound and cover with a sterile bandage to minimize risk of infection.

Associated Parasites

Pest birds harbor ticks, fleas, mites and other ectoparasites. Parasites transfer disease in the following manner. The parasite bites an infected animal and sucks in blood containing the germ. When the bug bites its next victim it passes along the germ to the new victim. This occurs because parasites inject some of their saliva into the host when feeding. Over forty types of parasites live either on the birds, in their nests or in the places they roost. They are responsible for the transmission of several hundred viral and bacterial agents. These diseases include plague, encephalitis, pox and meningitis. Control of these parasites is a crucial phase of the bird control project. Paradoxically, this threat can be aggravated when bird control products are installed. Unless the parasites are exterminated when the birds are excluded from a site, the mites, fleas, ticks etc. will seek a new host, often the human inhabitants. Therefore, a proper bird control project will always include parasite extermination.

How to Handle Pest Birds Problems From A Health Perspective

Using our understanding of how nuisance birds play a roll in disease transmission, we can develop a few guidelines when dealing with bird infestations.

First and foremost, bird infestations are to be taken seriously but not irrationally. When evaluating a health risk potential look for the following: droppings or nesting materials inside air vents, birds around food or beverage production facilities, or large amounts of droppings in enclosed areas. These are the types of situations where disease can be spread. Remember, pigeons walking around your park bench is not cause for panic, while twenty birds living in the roof-top air ducts of a restaurant is a serious health concern requiring action.

Second, pest control professionals and do-it yourselfers must take the proper precautions when tackling bird control projects. Respirators, goggles and protective clothing must be used when cleaning up bird sites, particularly enclosed areas out of the sun with large amounts of droppings and nesting material (please see our separate information sheet on protective safety equipment).

Finally, it is not enough to remove the birds, it is crucial to exterminate all the ectoparasites and thoroughly disinfect the site. Please refer to our page on bird waste cleanup for more information.