

Psittacosis in Birds & Humans

What is psittacosis?

Psittacosis is an infectious disease of birds and people caused by *Chlamydophila psittaci*, formerly known as *Chlamydia psittaci*. Psittacosis, also known as parrot fever, refers to the disease in parrots, while ornithosis refers to the disease in other birds such as turkeys.

People usually catch this disease after exposure to an infected bird. Birds associated with reported human psittacosis include:

- parrots and parakeets
- turkeys
- pigeons and doves
- finches
- mynah birds

Persons at risk include:

- bird fanciers
- employees in poultry slaughtering and processing plants
- veterinarians
- veterinary technicians
- laboratory workers
- workers in avian quarantine stations
- wildlife rehabilitators
- zoo workers
- pet shop workers

Psittacosis is challenging to diagnose and control. Some birds may be carriers. These individuals may seem healthy but intermittently shed the organism in their stool. Birds stressed from other health problems, shipping, or over-crowding are most likely to shed *C. psittaci*.

Psittacosis infection in man

Infected birds shed *C. psittaci* through feces and nasal discharge. There is usually a period of 7-14 days between exposure and signs of disease. The symptoms of psittacosis range from mild flu-like illness to serious pneumonia requiring hospitalization.

Symptoms may include:

- sore throat
- fever up to 105°F
- chills

- muscle aches
- chest pain
- weakness
- headache
- nausea
- vomiting
- photophobia (sensitivity to light)
- cough

Because these symptoms are so non-specific, physicians rarely suspect psittacosis unless the patient has obvious recent exposure to birds. Unfortunately human infection can also result from only brief contact with infected birds or their contaminated excretions or secretions. Human patients with psittacosis are treated with antibiotics, usually doxycycline, azithromycin, or erythromycin for 2-3 weeks. Response to antibiotic therapy is usually prompt.

Up to 200 cases of psittacosis occur annually. From 1988-2003, 935 human cases of psittacosis were reported to the Centers for Disease Control. These numbers probably underestimate the true number of cases since psittacosis is difficult to diagnose and often goes unreported.

Psittacosis in birds

Signs of psittacosis in birds include “pea soup” greenish diarrhea, loss of appetite, weight loss, ruffled feathers, conjunctivitis, and respiratory problems. Carriers show no signs but are still capable of infecting others birds and humans.

Several tests are available to attempt diagnosis of psittacosis in birds. Your veterinarian can sample feces or other body samples to look for the organism or a blood test may be performed to detect antibody, which shows evidence of exposure (past or present). Birds should be tested for psittacosis before they are boarded or after purchase.

Psittacosis screening is particularly important in households with people that may be more susceptible to infection such as:

- the very old or the very young
- people that are sick
- HIV-positive
- pregnant women, or
- those on chemotherapy.

Also consult your veterinarian about testing birds with frequent public contact such as birds in nursing homes or schools.

Present sick birds to an avian veterinarian promptly. Many birds with psittacosis can be successfully managed if treatment is prompt and given over a sufficient time period.

Under the supervision of a licensed veterinarian, infected birds and potentially exposed birds should be isolated and treated for 45 days with doxycycline or other appropriate

medications. Your veterinarian may want to retest treated birds 2 weeks after treatment and again in 3-6 months.

Does infection with psittacosis lead to immunity?

Neither a person nor a bird with psittacosis will develop lasting immunity despite having had an infection. Infection can recur after re-exposure to the organism.

What can be done to prevent psittacosis?

Use husbandry practices that will minimize the spread of disease:

- Position cages to prevent the transfer of feces, food, and other materials from one cage to another.
- Do not stack cages, and use solid-sided cages or barriers if cages are adjoining.
- Select cages with grates on the bottom. Use substrates that will not produce dust, such as newspaper, to line the cage bottom.
- Quarantine new birds for at least 30 days in a separate air space from other birds. Also isolate birds that have been to shows, exhibitions, fairs, and other events, and consult your veterinarian before returning birds to the group.

Clean and disinfect appropriately:

- Clean food and water bowls and cages daily, or at least often enough that feces cannot collect, dry up, and become airborne.
- Minimize fecal dust by misting cage bottoms with water prior to cleaning.
- Thoroughly scrub the soiled cage to remove all organic debris, rinse the cage, apply disinfectant and allow this to contact cage surfaces for at least 5-10 minutes, then re-rinse the cage to remove the disinfectant.
- *Chlamydophila psittaci* is susceptible to most disinfectants and detergents, such as chlorine dioxide (Dentagene, Oxyfresh), 1:1000 dilutions of quaternary ammonium compounds, or dilute household bleach (1/2 cup per gallon water). Many disinfectants are respiratory irritants and should be used in a well-ventilated area away from birds. Avoid mixing disinfectants with any other product.

What is the role of your local Health Department in psittacosis?

Psittacosis is infectious and is designated as a reportable disease. This means that physicians and laboratories are required by law to notify the local health department whenever a person is suspected of having psittacosis. There is no requirement to report an infected bird.

Local health departments may follow up on human cases to determine if they can identify the birds most likely to be the source of the infection. The investigation may require that a veterinarian examine suspect birds and conduct laboratory testing, with quarantine and treatment required if diseased birds are found.

For further information on psittacosis contact your:

- Physician
- Veterinarian
- Local or state health department

Reference

Smith KA, Bradley KK, Stobierski MG, et al. Compendium of measures to control *Chlamydophila psittaci* (formerly *Chlamydia psittaci*) infection among humans (psittacosis) and pet birds, 2005. *J Am Vet Med Assoc* 226(4):532-539, 2005.