



Avian Health Network, Inc.™

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- 1) **What is PDD?** Proventricular Dilatation Disease (PDD) is a wasting type disease that can affect and is fatal in captive and free-ranging birds; especially young birds like African Greys; Macaws and Cockatoos. The symptoms and side effects that have been associated with PPD are varied, its routes are unknown, **and its outcome is fatal**. Slow starvation results from destructive, inflammatory changes in the brain and neural system affecting the gastrointestinal tract.
- 2) **What causes PDD? How do birds get PDD? How is PDD transmitted? How does PDD spread?** Researchers are trying to confirm the infectious nature of PDD meaning that it can be transmitted between birds. If a bird is exposed to a PDD-carrying bird, the evidence suggests there is a possibility that it will host the disease as well. The cause of PDD is not known. The nature of this disease suggests that PDD may be caused by a virus. Various studies are being done such as the ones at the University of Georgia's College of Veterinary Medicine and University of Guelph, Veterinary Teaching Hospital to determine a cause of PDD. If a cause can be determined (viral, bacterial, parasitic, protozoal, prional), veterinarians and researchers may be able to establish proven treatment protocols and a vaccine.
- 3) **Is there a cure? What kind of treatment is available for my bird(s)? Is there a vaccination against the disease?** There is NO cure. Our companions, our flocks, are victims: that is why the disease is so devastating. As research progresses and more have become known about the disease however, ways are being developed to treat the conditions and side effects associated with PDD. Science oftentimes will not be able to reverse damage already done to any system due to disease but treatments may in some cases help afflicted birds to live longer and healthier lives, and may even help to prevent PDD from further damage to an individual bird. In addition to providing necessary information for research to help treat afflicted birds, this disease research naturally leads to effective means of protecting healthy birds and preventing outbreaks and the spread of infectious diseases. (It is beyond the scope of this FAQ to list or comment on medical treatment programs. Consult a veterinarian or veterinary hospital that has experience in identifying and treating avian diseases.)
- 4) **Is there anything I can do to prevent my bird from getting PDD? How can I protect my bird(s), my flock(s) from PDD?** Proventricular Dilatation Disease can occur in any aviary despite excellent hygiene, valid quarantine procedures and the absence of new additions to the flock. To avoid infection by direct contact, a bird presenting signs of PDD needs to be isolated from other birds. Since airborne transmission has not been ruled out, this implies a separate airspace. Since conclusive tests are still under development, institute monitoring measures and regularly look for external signs of PDD. PDD can strike one or several birds in a home or aviary, and leave the others healthy.
- 5) **What are some of the signs and symptoms of PDD?** A bird with PDD may or may not show outward signs before the disease becomes critical. There are several common signs of PDD in a bird. Your veterinarian will be looking for signs of weight loss despite normal or excessive appetite, the passage of undigested food, vomiting, feather loss, abdominal distention, and impaction of the crop. The doctor will also look for neurological signs such as erratic and unusual head movements, spasms and seizures, lack of balance and excessive falling, and unusual apathy or sleepiness. Note that clinical signs like these may also indicate other diseases or conditions than PDD, and that some infected birds show no outward signs whatsoever.
- 6) **How is PDD diagnosed? Why can't my vet tell me if my bird has PDD or not? Are there any tests available to detect PDD? How accurate are they?** Before this gets too confusing, it's important to know the difference with the words being used. A **biopsy** is a study of the tissue taken from a live specimen. A **necropsy** (also referred to as a gross necropsy) is an autopsy done on a deceased bird. *It tells what the eye can visually see.* A **lesion** is the telltale sign that something was disrupting the body. **Histopathology** is the only way to tell what kind of a lesion it was. The

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histological exam is the microscopic study of the tissue. This tells us the microscopic (what you cannot see with the naked eye) structure of the tissue as well as the changes and functions of the tissues and by this method the type of lesion in the bird's body can be ascertained.

A presumptive diagnosis of PDD is based on **historical information**, clinical signs, and radiographic evidence of proventricular dilatation or dysfunction.

Confirming that a living bird has PDD is difficult because the disease cannot be diagnosed by clinical abnormalities. Microscopic examination of the ventriculus, proventriculus, crop or brain of affected birds is currently the only way to confirm the disease. **Lesions** maybe noted on **necropsy** however this is not always the case and a **histological exam** is still required.

Another testing procedure uses a barium X-ray process to reveal advanced signs of PDD in a bird with gastrointestinal damage.

With this in mind, in some suspected birds, it **MAY** be possible to obtain a PDD diagnosis *before death* by submitting a **biopsy** (tissue sample) of the crop. If the result is positive, the bird is infected. If the test results are *negative* however, the bird may or may not be infected because the tissue sample taken may have been uninfected or disease free. You still can not rule out PDD at this time.

- 7) **Can my bird live with PDD?** Your bird may be able to live with PDD. Some birds living with this disease present as healthy birds that you would not know they are infected. Expect to use the same kind of care for a PDD-infected bird as for any organism whose immune system and other physiological systems are being compromised. Special attention to nutrition, hygiene, and isolation factors will help protect your bird from infections and other diseases. StopPDD.org has a "Living with PDD" section for more info regarding finding appropriate medications, vets, research programs, guidance, etc that may be helpful to you.
- 8) **What is the life span of a PDD bird?** Not enough is known about PDD to answer this question. The life span of a compromised bird depends on a wide range of variables, some of which are currently under study. It appears at this time that some birds live while carrying the disease - they are carriers that do not become symptomatic. While other birds lives may be reduced to a matter of months after exposure to PDD. It also appears that some PDD-infected birds may be able to produce PDD-infected offspring or have a rate of dead in the shell.
- 9) **The hard questions... What are my options if I find out or suspect my bird has PDD? Do I have to euthanize my bird/flock if I suspect PDD?** We've heard these questions too often to leave them out...but we do not have answers. The first step, of course, is to quarantine the bird and consult a veterinarian or research hospital with experience in identifying and treating avian diseases. But don't be dismayed by a bad prognosis - while the research is far from complete, we can be as broad in our hopes as we are in our protection measures. Educate yourself about the disease. Try to gather all the information available. Then try to figure out what is best for your bird(s)... and for you. No one can make these decisions for you. Your decisions will be based on a wide range of variables from your ethical and religious beliefs to practical factors such as expense, risk factors, and exposure to other birds.

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