

# Special Diseases of Pet Birds

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**T**he main characteristics and basic prevention and control strategies for many of the disorders and diseases that will be discussed here have been covered in a previous chapter on *Infectious Diseases*. The chapter you now are reading provides additional features that will apply first to all types of pet birds, and then to selected diseases found mainly in only one or two types.

## All Bird Types

Noninfectious and miscellaneous disorders have been listed first because they generally are the types of problems most people face keeping pet birds.

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**Beak Deformities.** Abnormally overgrown upper beaks may occur. Parakeets frequently need the upper beak trimmed, filed or ground back until it overlaps the lower beak only slightly. This often applies to large parrot types and raptors as well. In some cases, beak deformity is the result of mites, inherited defects, poor nutrition, injury or tumors.

**Bumblefoot.** Predisposing causes in pet birds, besides those discussed under general diseases, include vitamin A deficiency and confinement to hard potentially abrasive cement floors. Padding of perches, vitamin A injections and surgical treatment may be required to correct this condition in raptors and other valuable birds.

**Claw Deformities.** Small perching birds, especially canaries and other finches, may be prone to fractured bones if claw deformities are not cor-

rected. This usually requires trimming away claw overgrowth and the control of any concurrent leg mite infestations.

**Egg Binding.** This life-threatening condition is the result of a bird's inability to complete laying an egg. Found in nearly all pet bird types, it is most often seen in parakeets, cockatiels, finches, and canaries.

Lack of exercise, allowing poorly conditioned hens to breed, infections of the oviduct, and obesity have all been implicated in predisposing birds to this problem. Low calcium intake when seeds or grains are overfed also may play a role.

A generally helpful home remedy has been to place the affected bird in a steaming bathroom (85° to 90° F and 70 percent humidity) for 1 or 2 hours. Consult your veterinarian when additional treatment is required.

### **Excessive Egg Laying**

Birds in high egg production risk egg binding and general exhaustion if their diet is not complete in all essential vitamins and minerals and formulated to supply an increased supply of protein, calcium and energy (calories).

**Feathering Ills.** Abnormal molting or feather loss can occur in all avian species. Such problems may be related closely to malnutrition, hormonal imbalances, parasites, tumors, obesity, and boredom. A veterinarian should be consulted to fully evaluate the situation. The stress of fright or overheating also may be involved.

Light daily misting of birds with water from an atomizer stimulates many birds to preen their feathers more actively, with significant improvement in the appearance of their plumage.

**Hernias.** Weakened abdominal muscles in any type of bird and especially in parakeets leads to abdominal ruptures that can be mistaken for tumors. Treatment may not be required. Surgical correction sometimes is indicated.

**Injuries.** Many veterinarians are skillful and innovative in treating avian injuries. Broken beaks, wings and legs, punctured crops and severe lacerations (cuts or tears) are frequently treated successfully by prompt surgical attention.

**Lameness.** Refer to earlier chapter on *Miscellaneous Diseases* for a brief discussion.

### **Dieting Can Help**

**Malnutrition.** Deficiencies are prevalent in all pet birds causing beak, skeletal, nervous, muscular, feathering and reproductive problems. In parakeets, lipidosis, a serious problem taxing vital internal organs, is treated by gradually increasing a bird's exercise routine while decreasing feed consumption, especially seeds. Veterinarians can prescribe a reducing diet.

**Poisoning.** Homes often contain many items toxic to pet birds. The list includes several house plants, aerosol can propellants, natural gas when a pilot light fails, rodenticides, mothballs, cigarette butts, and denture cleaners.

Overheated non-stick frying pans or fumes of burned meat or fat have been reported to cause sudden widespread avian deaths in some home aviaries. Lead poisoning can result from pecking and eating curtain weights, lead shot and some paints and wine bottle foils.

**Tumors.** Pet birds, especially parakeets, appear susceptible to a wide range of benign and malignant tumors. Fatty skin tumors often may be treated by dietary changes. Skin or superficial tumors frequently can be removed sur-

gically, but large internal tumors usually are inoperable.

### **Protozoan Diseases**

**Coccidiosis.** Various *Eimeria* and *Isospora* species of coccidia have been found in various types of birds. Although the number of recognized infections is rather low, the disease does produce loss of appetite and watery stools.

Accurate diagnosis is made by examining fecal specimens microscopically to demonstrate the causative coccidial oocysts.

**Giardiasis.** This disease is caused by a protozoan that moves about in intestinal secretions by whip-like action of its tail (flagella). Giardiasis can result in very persistent diarrhea, depressed appetite and weight loss.

Cockatiels, cockatoos, and parakeets are the most susceptible, especially the young fledglings. Microscopic examination of fecal specimens leads to accurate diagnosis and appropriate treatment.

**Malaria of Birds.** Several different forms of avian malaria affect pet birds of all types. All are transmitted by bloodsucking flies and mosquitoes. Very briefly, the major forms are blood infections with *Hemaproteus*, *Leucocytozoon*, and *Plasmodium* species.

*Hemaproteus*, while producing mild and often unnoticed infections in raptors, canaries, and other finch types, has been found to produce fatal illness in pigeons, doves, and cockatoos.

*Leucocytozoan* infections can be a serious problem in young parakeets, canaries, pigeons and raptors. Anemia and droopiness, soon followed by death, may be seen. Older birds may exhibit few, if any, signs of illness. Internally, the major changes are swelling of the liver and spleen and damage to the heart (myocarditis).

Infection with *Plasmodium* species occurs less frequently than the other avian malarias. It usually is found in canaries, finches, pigeons, and doves. Symptoms can include ruffled feathers, swollen eyelids, pale watery blood, general weakness, and in severe cases, death. Livers and spleens of affected birds often are darkened and enlarged.

**Trichomoniasis.** This protozoan infection, which also is caused by a flagellated motile (swimming) protozoan, is a problem principally in canaries, finches, pigeons, doves and raptors. The mouth is the chief site of involvement.

Advanced infections result in severe accumulations of yellow cheesy debris on the

tongue and in the back of the mouth (pharynx). Infections should be professionally confirmed and treated with appropriate drugs.

### **Bacterial Diseases**

**Chlamydiosis (psittacosis or ornithosis).** As already discussed, the disease is not limited to pet birds. It also is found in turkeys and waterfowl.

This can be an especially serious problem not only in imported parrots and related psittacines, but also in long-established domestic aviaries where prolonged, high death losses can occur. The disease has been called parrot fever.

Imported birds are treated routinely with chlamydiostatic antibiotics to control this infection. Sometimes, however, poor consumption of antibiotic-treated feed means that a portion of imported birds may continue to remain infected. Such birds may become fatally sick soon after purchase.

Chlamydiosis occurs mostly in imported birds, but also can make gradual inroads into a domestic breeding operation when an undetected carrier sheds infection throughout an aviary. Periodic cycles of antibiotic medication are

being recommended to avert this problem.

Research supported by the pet industry, private sources, and various agencies is being aimed at developing better methods to detect carriers and consistently get rid of infections. Your veterinarian can keep you informed on this progress.

Outside aviaries or pet bird collections are at risk of chlamydiosis from infected wild free-flying birds.

### **Other Bacteria**

Colibacillosis, pasteurellosis, salmonellosis (paratyphoid) and tuberculosis—were previously discussed. These also are pet bird diseases and—with the exception of tuberculosis—usually respond to antibiotic treatment. They are largely preventable through practice of the good management recommendations emphasized in later chapters on *General Management* and *Management: Pet Birds*.

For example, poor sanitation or excessive stress increases the likelihood and severity of paratyphoid infection in many types of pet birds. Pasteurellosis can be fatally introduced in small birds or pigeons by cat bites and into raptors by consumption of pasteurella-infected waterfowl.

*Pseudomonas* and *Proteus* infections appear more common in pet birds than poultry. These infections, like colibacillosis, often begin as a complication of a virus infection, poor ventilation (too drafty or too stuffy), malnutrition, or any other weakening conditions.

Tuberculosis, not only a problem in old chickens or game birds, is one of the most common bacterial diseases of hawks and several other types of pet or hobby raptors. Large, adult parrots and macaws also are susceptible.

Hemophilus infection (coryza) is discussed later in this chapter under special diseases of pigeons.

### **Viral Diseases**

**Pox Virus.** This infection in pet birds appears differently from one type of bird to another. In canaries, pox produces severe breathing difficulties and rough thickened areas around the eyes and beak. Parrots, such as Blue Front and Yellow Head or Yellow Nape Parrots, develop cheesy thickenings in the mouth and throat. Pox involvement of the head and eye may occur also in these and other parrots.

Pigeons develop raised pox scabs around the eyes and

face. In raptors, pox produces lumpy (nodular) thickenings of the feet, shanks, and face. The upper digestive tract also may be affected.

Vaccines have been used for pigeon and canary pox. Others may be available in the future for parrot types and raptors. Each type basically requires its own pox vaccine. In other words, a vaccine that is effective for one type of bird often is ineffective in another bird type.

**Herpes Virus.** Several different herpes virus infections are found in pet birds. They generally are limited to specific types such as parrot types, pigeons and raptors and will be discussed or mentioned under special diseases of these birds. They are different from livestock and human herpes viruses.

**Newcastle Disease.** Includes Exotic Newcastle Disease (Velogenic Viscerotropic Newcastle Disease). This is a highly contagious disease capable of infecting most birds. The disease may be characterized by respiratory, digestive, or nervous system involvement.

Signs of the disease and expected mortality rates vary depending on the strain of the virus and susceptibility of the host.

The infection may be transient or inapparent in pet birds, with carriers serving as a threat to the poultry industry—where the disease can cause nearly 100 percent death losses.

Even large psittacines (parrots, conures, and cockatoos) generally suffer more severe infections with higher mortality rates than the smaller types of birds like parakeets, canaries, and finches.

Pet bird survivors of Newcastle disease may develop chronic nervous disorders such as tremors, wing droop, partial or complete leg paralysis, or twisted necks.

Avoid "bargain" pet birds. Pet bird smuggling is not uncommon, and such birds escaping tests for Newcastle disease at licensed bird import stations pose a hazard to individual bird owners, pet dealers, and the nation's food supply. Anonymous reports of bird smuggling can be made by calling a special Department of Agriculture office at 301-436-8065, or your official State Veterinarian.

### **Parasitic Diseases**

#### **Scaly Face or Leg Mites.**

*Knemidocoptes pilae* and similar mites are responsible for a variety of common disorders



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in parakeets, lovebirds, and other psittacines. Finches and canaries are affected less frequently.

In parakeets, infestations by this burrowing mite produce crusty proliferations at the cere or corners of the mouth. The tunneling of this parasite can deform the beak eventually. Scaly accumulations sometimes also develop under the beak, around the eyes, on the legs, and near the vent.

In large hook-bills (psittacines), the damage produced by scaly mites is less obvious

and less common. Thickening around the nostrils (nares) may be the only sign of infestation.

Canaries and finches, when infested, usually develop "coat of armor" like scabs of the shank of the leg, similar to those described earlier in older backyard-type chickens. Pigeons with this parasite exhibit both facial and leg involvement. An injectable treatment and effective ointments are available.

**Tracheal and Air Sac Mites.** The trachea (windpipe) and air sacs of finches, canar-

ies, and occasionally parakeets and dwarf parrots can become the home for tiny internal mites (*Sternostoma* and *Cytodites*).

These parasites cause birds to make characteristic "clicking" or "smacking" sounds. Canaries and other birds may cease singing, lose weight, develop open-mouthed breathing and make repeated attempts at throat-clearings.

Various techniques are available for diagnosing, treating and preventing these mites. Obtain professional guidance promptly if you suspect this condition.

**Worms.** Ascarids (roundworms) may produce weight loss, depressed appetite and diarrhea in young or breeding pigeons or hook-bills, especially Australian parakeets. Examination of stools microscopically provides the diagnosis.

Capillaria worms are a serious problem in raptors. They also parasitize canaries, parakeets and other pet birds.

Cecal Worms (*Heterakis gallinae*) and gapeworms (*Syngamus trachea*) have been reported in pet birds of various types. They can be introduced through the feeding of earthworms which are intermediate hosts of these parasitic worms.

**Fungal (mycotic) Diseases.** Refer to descriptions in earlier chapter on *Infectious Diseases*.

**Psittaciformes (Parrots, Hook-bills) Brown Hypertrophy of the Cere** occurs in female parakeets. It may be influenced by the hormone estrogen. Ordinarily this change does not require treatment.

**Overlaying and Exhaustion:** Repetitive laying of eggs, leading eventually to exhaustion and frequently life-threatening egg binding, is not uncommon in highly productive psittacines, such as parakeets, cockatoos and especially cockatiels. Several treatments include reducing the daily ration to halt laying, injections of hormones, and in some instances, surgery.

**Pacheco's Parrot Disease:** Also known as psittacine herpes virus infection, this acute, frequently fatal virus infection appears limited to hook-bills.

Outbreaks of this disease often occur when a recently recovered or infected psittacine or virus carrier conure (a medium-sized South or Central American hook-bill) is added to a group of susceptible birds. Psittacines most susceptible appear to be parrots, cockatoos and macaws.



Devastating infections have occurred in some aviaries. Special microscopic changes in the livers of dead birds enable diagnostic laboratories to provide your veterinarian with diagnostic confirmation in suspected cases.

Severity of outbreaks can be reduced by 1) keeping collections in small, well-separated groups, 2) keeping cages on one level so droppings from infected birds do not contaminate the feed and water of others, and 3) isolating new birds from others for a minimum of 6 weeks. Development of a licensed Pacheco's vaccine, which presently is experimental, may eventually prevent the disease.

**Parakeet Fledgling Disease:** This newly recognized disease in parakeets and some other hook-bills is caused by a papovavirus apparently transmitted from older fledglings to younger ones grown close by. Mortality rates can be up to 30 to 70 percent before birds reach 1 to 3 weeks of age. Crops are full and abdomens enlarged and reddened.

Moving breeders to another locale to enable cleanout and cleanup of the growing facility can break the cycle of continued and worsening passage of this disease from older fledglings to younger ones.

A suggested approach has been to depopulate the rearing-breeding facility so there are no newborn birds for 3 months, along with disposal of all old nests. Previously removed breeders can then be returned and reused after the premises, cages, and equipment have been thoroughly washed, scrubbed and disinfected.

Hand-feeding can help the spread of this disease. Psittacine papovavirus vaccines are currently only experimental.

**Other Important Diseases of Psittacines:** Beak deformity, candidiasis, cannibalism of fledglings by cockatoos, chlamydiosis, colibacillosis, giardiasis, gout, mites, Newcastle disease, paratyphoid, pox, tuberculosis and tumors.

### **Canaries and Finches**

**Alopecia or Baldness of Canaries:** Dull, dirty feathering, head baldness, feather pulling and lack of singing often appear metabolic or glandular (endocrine) in origin. Professional consultation is advisable.

**Toe Necrosis:** This problem can result in rotting (gangrene) of a toe or even a leg when blood circulation is blocked from strings unraveling from cloth used for cage

bedding or other sources.

**Other important diseases of canaries and finches are:** Claw deformity, coccidiosis, egg binding, feather picking, giardiasis, mites, pox, trichomoniasis, and worms.

### **Pigeons and Doves**

**Coryza:** Caused by *Hemophilus gallinarum*, this bacterial disease is also common in backyard chickens. Its main signs in pigeons are sneezing, nasal discharge, and swelling of the face, especially around the eyes. The disease responds well to proper antibiotic therapy.

**Pigeon Flies:** Dark brown flies with single wings (*Pseudolynchia canariensis*) can sometimes be found moving rapidly among the feathers of pigeons. They live on pigeon blood and may cause heavy losses to squabs. They probably contribute to the spread of pigeon malaria.

Their control depends on thorough cleaning and sanitizing of lofts every three weeks and dusting of squabs with in-

secticide powders.

**Other Important Diseases of Pigeons and Doves:** Lice, malaria, mites, pigeon encephalitis, pigeon herpes virus infection, pox, and trichomoniasis.

**Raptors (Falcons, Hawks, and Other Birds of Prey):** Most important in maintaining the health of raptors is preventing vitamin and mineral deficiencies (rickets), aspergillosis, botulism, trichomoniasis, and very importantly, avian tuberculosis. All of these have been previously discussed in earlier disease chapters.

Tuberculosis is a particularly common and serious malady of raptors. Owls, however, may be less prone to this problem.

A herpes virus infection, known as owl hepatosplenitis or inclusion body disease of raptors, is also of concern. A disease worthy of greater research, it causes listlessness, appetite loss, reduced disease resistance and severe degenerative changes in the liver, spleen and bone marrow.