

The Pet Bird Health Handbook

Our Mission

Here at CVS, our goal is to provide you prompt, professional, and courteous veterinary care for your avian or exotic pet. We strive to give you the tools and knowledge you need to make informed medical decisions about your pet and to keep him or her

Appointments

Patients are seen by appointment, referral, or emergency. Referred patients are transferred back to your family vet as soon as indicated by the nature of the case. Unlike our other specialty services, patients can be seen with or without a referral. Primary and preventative care services are offered. Dr. Powers is on-call after-hours for exotic pet emergencies. She can help determine if a condition is an emergency, and examine and treat the patient at our Huntersville location. Please call in advance before arriving to make sure that Dr. Powers is available.

Fees

Carolina Veterinary Specialists is a specialty, referral, and emergency center. While our examination fees tend to be a bit higher than in general practice, we offer valued services such as hour-long appointments (longer, if necessary) and 24-hour care for hospitalized patients.

About Dr. Powers

Dr. Powers graduated from Tufts University School of Veterinary Medicine in 1994 and completed a two-year residency in Avian Medicine and Surgery at NCSU in 1997, becoming board-certified in avian medicine later that year. She recertified in 2006. She is a member of the Association of Avian Vets, the Association of Exotic Mammal Vets, the Association of Reptile and Amphibian Vets, and the American Association of Zoo Vets, among others. She is a regular speaker at national and local veterinary conferences and has written many scientific articles in journals, magazines, and books.

The Avian & Exotic Pet Service is based at our Huntersville office. Patients are seen as appointments, referrals, and daytime and after-hours emergencies. After-hours emergencies for exotic pets can also be seen by our veterinary interns at our Township Road location. Dr. Powers can be consulted by the interns on an as-needed basis.



Carolina Veterinary Specialists

Avian & Exotic Pet Service

12117 Statesville Road
Huntersville
North Carolina
28078

www.carolinavet.com

Phone (704) 949-1100

Fax (704) 949-1101



Getting To Us

Directions from I-77 South: Take Exit 23, take a left off the ramp onto Gilead Road, get into your right lane and take a right onto Statesville Road. We are about 0.5 miles on the right, just past the car dealerships.

From I-77 North: Take Exit 18, take a right off the ramp onto Harris Blvd, take your first left onto Statesville Road. We are 2.5 miles on the left.

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Birds are Unique Pets

Birds have enriched the lives of many of us. They are spectacularly beautiful and possess the unique ability for flight. They are long-lived, and many of the parrots can mimic human speech. Not to mention, they are comical and entertaining. We will help you to achieve many long years of enjoyment with your friend!

Your bird is probably genetically identical or closely related to its wild relatives. In the wild, if a bird shows signs of illness, it is picked out of the crowd by predators. Your bird instinctively hides symptoms of illness until it is too sick or weak to do so. If your bird is ill, do not wait to get veterinary attention! What might have been a treatable problem on the first day of illness may no longer be treatable two or three days later. To keep your friend healthy and fit, you must do your homework. You should become familiar with the natural background of your pet. You should learn as much as you can about where the species lives in the wild, what kind of social groups it forms, and learn about its natural diet. The husbandry and nutritional needs of different groups of birds are often distinct. There are frequently vast differences between even closely related species.

The Wellness Exam

There are several reasons why you should have your bird examined soon after it joins your family and at least once a year thereafter. As mentioned before, birds have a distinct knack for hiding illness. Your pet may look healthy, but be hiding a serious illness inside. During a wellness exam, your bird is weighed, examined, and tests are offered that can screen your pet for underlying and often silent illness.

What is an Avian Veterinarian?

Unfortunately, the four years of veterinary school are crammed with important classes and most new veterinarians do not graduate with enough experience or knowledge to properly treat birds. Many vets feel comfortable offering grooming services, but are less comfortable with a sick bird. Do not assume that all veterinarians treat birds. While there are many excellent avian vets in practice, do not simply rely on their ads. Get personal recommendations from other pet bird owners. Get to know them by scheduling a wellness exam. Ask questions. How many years experience do they have treating birds? Do they attend conferences on avian medicine? Do they subscribe to avian medicine journals? Are they a member of the Association of Avian Veterinarians? Membership in the AAV is different from board-certification.

Numbers You Should Know

Animal Poison Control
(800) 548-2423 or
(888) 232-8870
**Fee charged to a major credit card

CVS Animal Emergency Hospital
(Township Road, Charlotte)
(704) 588-7015

Board certified avian vets have years of documented experience or have gone through a residency training program in avian medicine and have passed a rigorous exam and written scientific papers.

Specialized Services

Here at Carolina Veterinary Specialists, we provide many services vital in our ability to offer you and your pet bird complete and comprehensive veterinary care. Many of these services are not available in most general veterinary practices, including:

- Endoscopy (Storz rigid 2.7 mm arthroscope, biopsy and grasping forceps, Teflon-coated aspirating needle)
- Electrosurgical equipment, to minimize surgical bleeding
- Microsurgical equipment
- Avian Hospital Cage Unit for heat and supplemental oxygen, as well as nebulization (Snyder)
- Rapid, in-house testing for psittacosis (QuickVue)
- Ultrasound (sonogram) services
- 24-hour nursing care and treatment
- High detail X-ray film and cassettes, for taking ultra-crisp X-rays (mammography film, extremity cassettes)
- Isolation ward, for hospitalizing potentially contagious animals.
- Isoflurane and sevoflurane anesthesia
- In-house CBC and chemistry testing
- Access to computed tomography (CAT scans)

Recognizing an Emergency

The following symptoms should be a cause for concern and should prompt you to contact an avian veterinarian as soon as possible.

- Significant bleeding such as from a feather or the vent
- Egg binding (straining to produce an egg for more than a few hours)
- Cloacal prolapse (pushing out of internal tissues from the vent)
- Difficulty breathing (open-mouth breathing, wings out, tail bob)
- Not seen eating or drinking in 24-48 hours
- On bottom of cage, fluffed, and poorly responsive
- Head trauma (windows, ceiling fans, other)
- Lead or zinc exposure (see later section)
- Seizures
- Bite or scratch, or suspected bite or scratch, from a cat

In the Event of an Emergency

Call an avian vet as soon as possible. If the cage is small enough, cover it and use it to transport the bird. If the cage is too large, place your bird in a travel cage, pet carrier, or even a cardboard box. Holding your bird during transport is not recommended. Bring some of the cage papers so the vet can examine the recent droppings. If it's hot outside, run the air conditioner for a few minutes. If cold, preheat your car. Bring some of your bird's favorite foods in case it needs to be hospitalized.

If You Can't Get to the Vet

Occasionally, extenuating circumstances prevent you from getting to the vet. If your bird is sick and you absolutely cannot get to the veterinary hospital, place your bird in a warm, quiet, dimly lit area. The ideal temperature is 78 to 82 degrees Fahrenheit. If your bird is on the bottom of the cage, place some hand towels or T-shirts on the bottom, and jar lids containing food and water. Do NOT force liquids such as water to your bird. This is stressful, and runs the risk of choking and aspiration pneumonia.

How Often to Examine?

Your bird should have a wellness exam at least once to twice a year, especially when very young or very old. Your bird will get weighed and get examined. Often, diagnostics are recommended, such as a blood chemistry panel, complete blood count, and stool examinations.

First Aid Kit

It's a good idea to keep a supply of tools in a small tackle box or sewing kit in the event of an emergency:

- * An old towel - for catching and restraining your bird
- * Basic bandaging supplies - gauze pads and rolls, first aid tape
- * Styptic powder or cornstarch - to stop minor bleeding
- * Needle-nosed pliers, square-tipped tweezers, or scissors for pulling broken blood feathers, etc
- * Cotton swabs and cotton balls
- * Betadine solution (iodine disinfectant)
- * Hydrogen peroxide - for cleaning wounds
- * Heating pad
- * Syringes without needles, eye dropper - for medicating
- * High energy liquid - such as Pedialyte or Gatoraid

The Office Visit

Apart from emergencies, patients are seen by appointment only. You will be asked to complete a questionnaire regarding your pet bird. Additional questions will be asked during the consultation in the exam room. The bird is usually not examined until the history-taking is complete and a diagnostic and treatment plan is established. Unless you have a strong preference otherwise, birds are examined and samples collected in the treatment area of the hospital without you present. Many birds appear to hold "grudges" against their owners for not helping them during the stressful restraint. All necessary equipment is prepared in advance to minimize handling time and stress. Your bird's body weight will be measured, in grams. A full physical examination will be done, including evaluation of the eyes, ear openings, oral cavity, choana (slit on the roof of the mouth), crop (food storage organ at the base of the neck), pectoral musculing (an indicator of body condition), wings, legs, feet, nails, vent (anal opening), tail, preen gland, and plumage. The heart and lungs will be auscultated with a stethoscope. If for any reason your bird develops respiratory difficulty during the exam, it will be placed down and possibly given oxygen treatment. We will not take undue risks with your feathered friend

Diagnositics

Baseline diagnostics are generally recommended during the wellness exam or if your bird is sick.. Tests can give evidence of internal diseases and serve as a baseline for future comparison.

Blood Collection

A small sample of blood is collected, usually from the right jugular vein, while your bird is restrained on its side. The skin is prepared with a small amount of rubbing alcohol. This procedure is generally safe, but occasionally a bruise will develop around the vein. Serious bleeding is very rare and is most likely to occur with liver disease or clotting problems.

Complete Blood Count (CBC)

A Complete Blood Count (CBC) is a measurement of the circulating red and white blood cells. The Packed Cell Volume (PCV, or hematocrit) measures the percentage of blood composed of red cells (often called the "iron count" in people). A low value indicates anemia. A blood smear is made, and the specific white blood cells are counted and examined for abnormal morphology. Elevations in certain white blood cell counts could indicate acute or chronic infections, septic conditions, or certain kinds of blood cancer (leukemia). This test can be run in-house on sick birds, or sent to the laboratory. Results from the lab are usually available within 1-2 days.

Biochemical/Health Profile

The biochemistry panel is a series of blood tests that evaluates organ functions (liver, kidney) as well as blood glucose (sugar), calcium, and protein. Occasionally, additional tests will be added to more accurately detect disease (such as the bile acids level to detect liver disease). These tests are usually sent to the laboratory and results return within 1-2 business days. For sick birds, these tests can be run on our in-house chemistry analyzer.

Fecal Wet Mount

A sample of stool is mixed with warm saline and examined under the microscope. This test is useful for detecting avian gastric yeast and intestinal parasites. This test is routinely done in parakeets and lovebirds since they are occasionally infected with avian gastric yeast.

Cloacal Culture

The cloacal culture is collected by gently inserting a sterile moistened swab into the birds vent (anus). The swab is submitted to the laboratory for culture and sensitivities. Results take about 3-5 business days. Growth of abnormal bacteria such as *E. coli* (may be a normal bacteria in cockatoos), *Klebsiella spp.*, and *Pseudomonas spp.* may warrant treatment with antibiotics.

Choanal Culture

The choanal culture is collected by gently inserting a sterile swab into the choanal slit, the opening along the hard palate that communicates with the upper airways. This test usually is only run on birds with symptoms of respiratory disease or those with an abnormal appearing choana. Growth of abnormal bacteria may indicate infection and warrant treatment with antibiotics. Results from the laboratory take about 3-5 business days.

X-Rays (Radiographs)

Radiographs are recommended when a bird has evidence of an orthopedic problem such as a possible broken bone or dislocated joint. Radiographs are useful to evaluate internal organs such as the proventriculus (stomach), liver, kidneys, lungs, and heart. Pieces of metal and other foreign objects can be detected as well. More often than not, sedation with gas anesthesia will be recommended. While asleep, birds are breathing 100% oxygen and are carefully monitored and never left alone. The procedure is usually very short. Anesthesia reduces stress to the bird and allows ideal positioning for the best results. There is a low risk of anesthetic complications with sedation for this procedure.

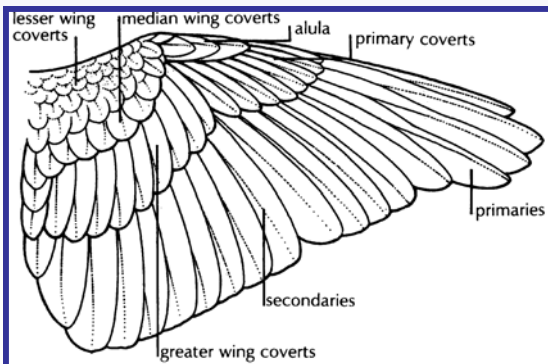
Fecal Gram Stain

The fecal Gram stain is a special stain on feces that detects and classifies bacteria. Usually, greater than 90% of the bacteria are Gram positive (purple when stained). Gram negative bacteria include *E. coli*, *Klebsiella spp.*, *Proteus spp.*, and *Pseudomonas spp.*, among others. An increase in the percentage of Gram negative bacteria may indicate infection. The Gram stain can also detect yeast and certain types of intestinal parasites. This test is done in-house.

Grooming - The Wing Clip

Typically speaking, the long flight and tail feathers molt 1-2 times yearly. The feather is pushed out by a new, growing feather. The shaft of this new blood feather is filled with blood to feed the growing structure. There is also a small nerve in the center of the blood feather. As the blood feather lengthens, it unfurls at the end. The flaky keratin sheath peels off and the blood vessel withdraws. The mature feather's shaft is hollow. A blood feather is at risk of seriously bleeding if it is broken or cut. Most often, the feather needs to be pulled from the follicle by an experienced person in order to stop the bleeding. All flight feathers should be carefully examined before the wing clip to identify any blood feathers.

A "standard clip" consists of clipping 5-8 of the outer primaries underneath the covering layer of covert feathers. There are no sharp, cut edges of feathers poking out to irritate the bird. This can be a more challenging clip to perform, so the "shop clip" is often done by breeders and pet stores. Occasionally, a "cosmetic clip" is done where the outermost 2-3 primaries are left intact for cosmetic purposes. Clipping both wings is recommended to allow even, gentle coasting to the ground. A unilateral clip more aggressively prevents flight, but the birds may spiral dangerously down to the ground. Most birds should be wing clipped for their safety with each molt. Unclipped birds risk flying into windows and ceiling fans and through open doors and windows. Unclipped birds are less well supervised and tend to be more aggressive (our other name for the wing clip is "the attitude adjustment"). However, wing clipping is a personal decision. If you feel very strongly that you can protect your bird from escape and household dangers, you may elect not to have your bird wing-clipped.



Grooming - The Nail Clip

Occasionally, the nails become very long or very sharp and require trimming. Nails are clipped with human or cat nail clippers. The "quick," or blood vessel, is comparatively longer in a bird than in a dog or cat. For this reason, nails often bleed during clipping. The nail is packed with Quik-Stop powder to prevent bleeding. If you clip nails at home, you MUST have a styptic powder or gel on hand! Concrete or sand perches can help keep the nails filed down if the appropriate size, and if placed in the cage where the bird spends a good deal of time (usually as a higher perch).

Grooming - The Beak Trim

The beak of a healthy parrot or parakeet rarely, if ever, requires routine trimming. Although the beak is a keratin structure and constantly grows, most birds are able to keep the beak properly filed down by grinding their beaks against each other or rubbing the beak on a perch or block. An overgrown upper beak tip may be a sign of liver disease. Damaged or split beaks may require regular trimming. Beaks are occasionally flaky, and a beak trim may improve the cosmetic appearance of the beak.

Permanent Identification



Domestically raised birds are often sold with closed aluminum leg band. This band is frequently marked with the initials of the breeder, year of hatch, and an individual bird number. Imported birds often have an open, USDA-licensed stainless steel band with three letters and three numbers. While leg bands serve as a useful ID, they can become caught in the cage or become crushed around the leg. Some owners elect to remove the leg bands. Removing the band is generally safe, but carries some risk of injury. You should keep the leg band in a safe place if you have it removed. Other forms of ID include a microchip - a tiny implant the size of a grain of rice that is injected into the breast muscle. We recommend this be inserted under sedation. These chips rarely migrate or cause trouble, and can be read by most universal microchip scanners. Another resource is DNA fingerprinting from a drop of blood. Speak to your avian veterinarian to further discuss your options.

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Safe Aviary Plants

Asparagus fern	African violet
Baby's tears	Bottle palm
Ponytail palm	Bromeliads
Burro's tail (donkey tail)	Coffee
Coleus	Corn plant
Dracaena	Easter cactus
Edible fig	Bird's nest fern
Mother fern	Boston, Swordfern
Brake, Ribbon fern	Button fern
Lomaria fern	Maidenhair fern
Polypody fern	Squirrel's foot fern
Staghorn fern	Fiddleleaf fig
Gardenia	Gold dust
Grape ivy	Hen and chicks
Hibiscus	Jade plant
Kalanchoe	Mango
Nerve plant	Norfolk island pine
Areca palm	Golden feather palm
European fan palm	Parlor palm
Sentry palm	Pygmy date palm
Lady palm	Bamboo fern palm
Fishtail palm	Peperomia
Prayer plant	Rubber plant
Snake plant	Spider plant
Swedish ivy	Umbrella tree
Velvet plant	Purple passion
Wandering jew	Zebra plant

Toxic Plants

Aloe vera	Amaryllis	Andromeda japonica
Apple seeds	Apricot pit	Asparagus fern
Autumn crocus	Avocado fruit and pit	Azalea
Baby doll ti	Baby's breath	Bird of Paradise
Bittersweet	Branching ivy	Buckeye
Buddhist pine	Caladium	Calla lily
Castor bean	Ceriman	Cherry leaves
Cherry seeds	China doll	Chinese evergreen
Christmas cactus	Christmas rose	Chrysanthemum
Cineraria	Clematis	Cordatum
Corn plant (dracaena)	Crown vetch	Cyclamen
Daffodil	Daisy	Devil's ivy
Dieffenbachia	Dracaena palm	Dragon tree
Elephant ears	Emerald feather	English ivy
Fiddle-leaf fig	Flamingo plant	Foxglove
Fruit salad plant	Geranium	German ivy
Glacier ivy	Gladiola	Glory lily
Hawaiian ti	Heavenly bamboo	Hibiscus
Holly	Hurricane plant	Hyacinth
Hydrangea	Impatiens	Indian laurel
Indian rubber plant	Iris	Japanese yew
Jerusalem cherry	Kalanchoe	Lilium species
Lily of the valley	Marble queen	Marijuana
Mexican breadfruit	Miniature croton	Mistletoe
Morning glory	Mother-in-law's tongue	Narcissus
Needlepoint ivy	Nephtytis	Nightshade
Norfolk pine	Oleander	Onion
Peace lily	Peach leaves and pit	Pencil cactus
Philodendron	Plum leaves and pit	Plumosa fern
Poinsetta	Pothos	Precatory bea
Primula	Privet	Rhododendron
Ribbon plant	Sago palm	Schefflera
Sweet pea	String of pearls	Sweet pea
Tara vine	Tomato (green fruit)	Tulip
Weeping fig	Yucca	
Yesterday, today, tomorrow plant		

What to Avoid

Keep the air around your bird as pure as possible. Do not smoke around your bird, and wash your hands after smoking and before handling your bird - nicotine on the hands can be an irritant to birds. Avoid scented candles, candles with lead wicks (wire wicks, made in foreign countries) as these can contain lead. Avoid incense and plug-in deodorizers and spray room or furniture deodorizers. It is not a good idea to use cosmetics or hair spray around your bird.

Cage Liners and Litters

The best cage liner is paper in the form of newspaper, butcher block paper, or paper towels. These can be cheap and easily removed and changed. Paper is by far the best substrate to monitor the appearance, number, and size of your bird's droppings. While corn cob can be aesthetically pleasing, it can get moldy when wet and harbor fungal spores. Droppings can become hidden in corn cob, walnut shells, and pelleted litters.

Pet Bird Nutrition

In general, for parrots we recommend a diet consisting of at least 60-70% pellets. Seeds and nuts such as sunflower seeds, peanuts, millet, and safflower should comprise no more than 10-20% of the total diet offered, or be an occasional treat. The remaining part of the diet should consist of green, leafy vegetables such as kale, broccoli, spinach, or red/orange vegetables such as carrots and sweet potatoes. Healthy, whole grain foods such as cereals (Cheerios, Grape Nuts) and whole grain breads and crackers are also excellent dietary choices. Fruits (grapes, apples) can be a small part of the diet.

Parakeets and cockatiels are grassland foragers. Their natural diet consists of more seed matter than a parrot. For this reason, parakeets and cockatiels prefer hard, crunchy foods over moist foods. It is frequently difficult to get them to eat vegetables, but it's definitely worth trying. An acceptable diet for these guys includes a quality seed mix and free access to hearty grains such as low fat, low sugar cereals (mentioned above), crackers, and breads. Pellets are also an excellent source of nutrition for parakeets and cockatiels. However, certain individual birds may develop very watery stools and eventually may develop kidney damage when on a pelleted diet. Seek advice if your pellet-eating bird develops very watery droppings.

Never feed avocados, as they are poisonous to birds. Avoid alcohol, caffeine, and chocolate. Avoid salty and greasy foods as well. Be aware that an abrupt diet change can be very dangerous to a bird, especially if ill. During a dietary change, you may be asked to return to the hospital every 2-3 days to check your bird's body weight.

Vegetables, Grains, and Fruits

In general, vegetables contain more nutrients than fruits. The dark green leafy vegetables (kale, spinach, collards, broccoli) and red-orange vegetables (sweet potatoes, carrots) are very high in beta carotene (the precursor to vitamin A). Many green leafy vegetables are a rich source of calcium. Whole grains are an excellent dietary choice as well. Commercial cereals are usually vitamin and mineral fortified.



Seeds and Nuts

Before we knew better, we believed a vitamin-fortified seed mix was the best diet for a pet bird. Now we know better. Most birds eat more than just seeds in the wild. Oil seeds such as sunflower and safflower are very high in fat (40-60% fat) and virtually devoid of vitamin A, calcium, and certain essential amino acids. Spraying a vitamin/mineral spray over the seeds (the standard for seed companies) doesn't help, as birds crack the shell and eat the meat, letting the vitamin-rich shell fall to the ground. Seed-exclusive diets can lead to obesity in certain species (such as budgies, Amazon parrots, and rose-breasted cockatoos), vitamin A deficiency (especially obvious in Amazon parrots and eclectus parrots), and calcium deficiency (especially in egg laying birds).

Pellets (Formulated Diets)



Pelleted diets are commercially formulated products that are designed based on what is known from studies mostly on poultry nutrition. Brand names include Roudybush, Kaytee exact, Zupreem, Lafeber's, and Pretty Bird. Little scientific research has been done regarding the specific nutritional needs of the different species of parrots and parakeets. While these products contain a known quantity of nutrients, vitamins, and minerals, no company can guarantee that it provides the perfect nutrition for every bird. Pellets should be part of a varied, complete diet. Most pellets are similar in composition. Some people prefer Harrison's diet because it is certified organic. Pellets come in a variety of shapes, colors, and flavors. The flavoring agent is typically sprayed onto the pellet. Different colored pellets taste the same, although birds may show a preference for certain colors. Birds have a very poorly developed sense of smell. Pellets are relatively low in fat (6-10% fat) and are less tasty than seeds for this reason.

WHAT NOT TO FEED YOUR BIRD

- Avocados
- Caffeine (coffee, soda, etc)
- Alcohol
- Chocolate
- Salty foods
- Fatty foods

Water, the Essential Nutrient

Water should be provided in a bowl or in a bottle and changed daily. You can use city tap water if it's clean and healthy. Filtered tap water is acceptable as long as the filters are changed regularly. Bottled water can also be used. Many birds like to soak their food in the water bowl. This "soup" can quickly spoil and be a source of infection. Water provided in bottles stays cleaner. However, you **MUST** make sure the bottle is working, and is not plugged, on a daily basis. Birds have been known to stuff food into the sipper and plug the bottle. You can cover your bases by providing more than one bottle.



Vitamins and Supplements

Parrots and parakeets do not require supplemental grit. Over their lives, they retain several small mineral pieces in their stomach that assist digestion. Some ill birds will overconsume grit and become impacted. Adding vitamins to the water or food is guesswork. Many vitamins break down quickly on exposure to light. Food and water additives may change the appearance and taste, making them less palatable. Birds may refuse to drink supplemented water and become dehydrated. Supplements should never be trusted to make up for a nutrient-poor, seed-based diet. You don't get complete nutrition by eating nothing but potato chips and taking a multivitamin! Cockatiels and parakeets should be provided a cuttlebone or mineral block to supplement them with calcium, especially if they are egg laying.

Converting to a Better Diet

These steps work best for the parakeet or cockatiel, but can be adapted to larger parrots. Dietary changes are a tricky and dangerous thing. Use a stepwise process to convert your parakeet or cockatiel from a seed-based diet.

Step 1: Place additional food cups in the cage containing pellets and grains. Leave them there around the clock. Offer another bowl containing vegetables and fruits, but remove this bowl after a couple hours to prevent spoilage

Step 2: Watch your bird closely for signs they are eating the new foods. If your bird does not begin to eat the new food within two weeks, add a very small amount of the foods to the seed mix, but not enough to completely obscure the seeds.

Step 3: After two weeks, and after you've seen your birds eating the new foods, remove the seed cup.

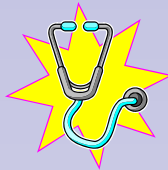
Step 4: Offer the bowl with the seed mix twice daily, for 30-60 minutes in the morning, then again at night.

In this way, your bird will not starve (and they have been known to starve to death during a diet change if they do not recognize the new diet as food) since they get their old reliable seeds twice a day. But if they become hungry during the day, they must select from the healthy foods.

During a diet change, use newspaper, paper towels, or butcher paper to line the cage. Change the papers daily and monitor the number and appearance of the stools. Droppings that are absent of feces (the green to brown tubular part) are a sign of serious anorexia. Dark, olive colored, stringy feces also is evidence of anorexia. If you are at all concerned that your bird is not eating, stop the diet change immediately and provide the old diet right away. Call the veterinarian as soon as possible. Many people own digital scales that measure in grams and are able to weigh their birds daily during a diet change. A loss of 1-2% of body weight for more than 3 days is cause for concern.

SYMPTOMS

Anorexia (Poor Appetite)



Frequently, sick birds have a reduced appetite or refuse to eat. However, birds have been known to apparently die while eating in their seed cup. A poor or absent appetite for 24-48 hours is cause for concern. Droppings with no fecal material (the green to brown part) indicate the bird is seriously anorectic. Fecal material that has become stringy, olive green, small and scant indicates the bird is not eating.

Diarrhea (Loose Fecal Material)

Diarrhea is different from loose, watery stools (polyuria). Diarrhea is when the normally tubular fecal material (the green to brown portion of the stool) becomes loose, loses its shape, and may become mucousy. Diarrhea is usually associated with an intestinal problem such as a bacterial, viral, parasitic, or yeast infection. Excessive amounts of watery foods such as fruit can temporarily cause diarrhea.

Regurgitation, Vomiting

Birds can regurgitate food to their loved ones, as they would to their mates in the wild. While disgusting, this is a normal behavior (but one that should be discouraged). If your bird is bringing up food while away from you, you should be concerned. Head shaking or head bobbing may be evidence that the bird is trying to regurgitate. Crusty, brown material on the top of a parakeet's head is usually regurgitated food. Regurgitation can be a sign of an impaction with foreign material such as cloth. It can also be evidence of a stomach yeast or viral infection, or lead poisoning, among other problems.

Feather Plucking or Chewing

Self-trauma to the plumage can be associated with a large variety of behavioral and medical problems. Medical causes include skin infections, "colic" from abdominal discomfort, intestinal parasites, vitamin deficiencies, and poor wing clips. Behavioral causes include separation anxiety, phobias, boredom, stress, sexual frustration, and habit. The longer the problem goes undiagnosed and untreated, the more habitual it becomes. Seek veterinary attention as soon as you notice significant damage to the plumage.

Lameness

Lameness could indicate trauma, such as a broken leg bone, soft tissue injury, or infection. Lameness in parakeets is often associated with a kidney tumor. The ischiatic (sciatic) nerve to the leg runs right through the kidney. Swelling of the kidney from a renal adenocarcinoma causes lameness to the leg on the same side. X-rays may be indicated to further evaluate the bones, joints, and internal organs.



Lethargy, Depression, Weakness

A lethargic, poorly responsive bird is cause of great concern. Please seek veterinary attention immediately if you think your bird is weak, excessively tired, poorly responsive to sound or movement, or very depressed.

Difficulty Breathing

Dyspnea, or difficulty breathing, is cause for alarm. These birds might be open-mouthed breathing, might keep the wings away from the body, and may have a tail bob with breathing. Dyspnea can be caused by airway obstruction (such as from an inhaled seed hull or fungal abscess), Teflon fume poisoning, pneumonia, or liver disease (ascites).

Sneezing, Nasal Discharge

Birds normally sneeze occasionally to clear their upper airways. Frequent sneezing is cause for concern, as is any kind of nasal discharge or bleeding, or clawing at the nostrils. Sneezing can be associated with an upper respiratory infection, impacted material in the airways, or irritation from impurities in the air.

Watery Droppings (Polyuria)

With each dropping, there is a fecal portion (the green to brown tubular part) and the whitish, crystallized material called urates. Urates are a form of urine. Watery droppings, or increased amounts of urine, often indicate a kidney problem. They can also be associated with zinc poisoning, normal egg laying, excessive playing in water, excessive amounts of fruit in the diet, and stress. Seek veterinary attention if the problem persists over 1-2 days and the bird is not egg laying, or if the bird shows other signs of illness.



INFECTIOUS DISEASES

Infectious diseases are all too common in pet birds. This may be due in part for the impressive ability of sick birds to mask their illness. Although importation of parrots into the United States has been banned since the early 1990's, many pet birds were caught in the wild. We have a lot of more research to do to better understand infectious diseases in birds.

Quarantine

Due to the often silent nature of bird infectious diseases, quarantine is strongly recommended for any new birds entering the multi-bird home. This means separate air space, separate food dishes, and separate toys. Birds in quarantine should be fed, cleaned, and handled after the other birds in the home. The quarantine period should be at least 30 to 45 days. During the quarantine, your bird should be examined by a veterinarian. Tests for certain contagious diseases may be recommended. We strongly discourage you from taking your bird to bird fairs and bird club meetings. Consider hiring a licensed, bonded pet sitter with bird experience to take care of your pet while you are away, rather than risk exposure to other birds at a boarding facility.

Psittacosis (Ornithosis, Chlamydiosis)

Chlamydiosis in birds is caused by the bacteria *Chlamydia psittaci*. It is carried from bird to bird by fecal material, respiratory secretions, and feather debris and can be airborne. It can live for up to weeks, even months, in organic material.

Many birds that carry *Chlamydia* do not act sick. The bacteria lies dormant inside their tissues. Birds can carry the infection and spread it to other birds and people without necessarily showing signs of illness. Stress, shipping, and other factors can cause an exposed bird to become sick. Classically, chlamydiosis is associated with respiratory symptoms including sneezing, watery eyes and nostrils, and trouble breathing. A bird with chlamydiosis may also have inflammation in the liver or in virtually any organ system, and can simply act sick. Signs of a sick bird include a poor appetite, ruffled feathers, increased time sleeping, and reduced response to noise and movement. A sick bird should receive veterinary attention as soon as possible.

Approximately 100 people are reported to contract *Chlamydia* from birds each year. In people, the infection is called psittacosis or ornithosis. Symptoms in people are usually similar to a flu, including fever, cough, chills, or stiff muscles or joints.

Immunosuppressed people such as HIV/AIDS patients, organ transplant recipients, people on high doses of immunosuppressive drugs such as steroids, and the geriatric may be at higher risk of infection. If an owner is sick enough to seek medical attention for flu-like symptoms, they should notify their doctor that they have a bird.

At the current time, there is no single test that detects infection 100% of the time. DNA probes on stool and blood, blood titers, and fecal ELISA tests and cultures are available. Often, running more than one test increases the chances of picking up an infection. It is recommended that all new birds be tested for chlamydiosis, especially if anyone in the household is immunosuppressed. A negative test does NOT guarantee the bird is free of infection. A positive test strongly suggests exposure and can be diagnostic in a sick bird. Veterinarians are required to report confirmed or suspected infections to state officials.

The treatment of choice in birds is the antibiotic doxycycline. It can be prescribed to be given in a variety of ways, depending upon the nature of the case. It can be given by mouth, in the water, in a seed mix, or by injection. Your avian veterinarian will discuss the best treatment option for your bird if a diagnosis of chlamydiosis is made. Often, all birds in the home must be treated if there has been a good chance of exposure.

Polyomavirus

Polyomavirus is a leading cause of death in baby parrots. It is caused by an environmentally stable virus. The virus can be carried in your hair or clothing to your home. Small psittacines such as parakeets (budgies, or budgerigars) are potential carriers of the virus. They can shed high number of virus particles and yet look clinically normal. Disease develops rapidly in infected young parrots. Initially, the crop emptying may slow down. The bird becomes listless and may develop skin bruising. Death quickly ensues, usually within 24-48 hours after the first symptoms are noticed. Most birds are believed to develop natural immunity by the time they are about a year and a half of age. Certain species, such as eclectus parrots and caiques, may continue to be susceptible as adults. Infection in adult healthy birds is believed to be silent or mild. Symptoms include mild lethargy and diarrhea. Immunosuppressive disease such as Beak and Feather Disease may cause an exposed adult to become seriously ill or die from infection.

A vaccine is available against polyomavirus. It is a two-shot series, two to three weeks apart, followed by an annual booster. The series can start as young as 21 days, with the second shot at a minimum of 35 days. The vaccine appears to be very safe and has been proven protective in several species of parrots. The vaccine is strongly recommended for very young birds and for particularly susceptible species. We currently feel the vaccine is optional in the adult, healthy, pet bird. Vaccination may be required for boarding at certain facilities that also house very young parrots.

Proventricular Dilatation Disease-PDD

PDD is believed to be a viral infection of the nerves mainly of the stomach. Since the virus appears to be relatively delicate, it is difficult to study and characterize. The latent period (time from infection to development of symptoms) may be weeks, to months, to years. The infection seems to slowly spread from bird to bird and is not typically associated with outbreak situations. It is not believed to be contagious to other animals or man.

Symptoms of infection are related to the problems the virus causes with stomach motility. The stomach chambers dilate, making it difficult to digest and absorb nutrients. Sick birds may regurgitate, lose weight, have a poor appetite, have undigested seeds in the stool or, if just on pellets, bulky undigested-looking stools. They may develop secondary bacterial or yeast infections in their gastrointestinal tract.

Unfortunately, at this time there is no definitive blood or stool test for PDD. Often, birds will have a dilated stomach on X-rays. Lead poisoning must be ruled out, as the symptoms can be identical to PDD. A crop biopsy is usually recommended in a sick bird to look for pathologic changes consistent with infection.

Currently, there is no cure for PDD. Birds are given supportive care, easily digestible foods, and secondary infections are treated with appropriate antibiotics. Some promising results have been seen with the drug Celebrex, a human arthritis medication. This drug works as an anti-inflammatory, and may help to slow or reverse symptoms of PDD. It is unknown if birds on Celebrex continue to shed virus. There is no vaccine against PDD currently available.

Avian Gastric Yeast (Megabacteria)

Psittacines can be latently infected with avian gastric yeast (*Macrorhabdus ornithogaster*, formerly called megabacteria). This infection is spread from bird to bird, and often from the parents to the offspring during feeding. Budgies (parakeets), lovebirds, finches, and canaries seem to be among the most commonly infected. The birds may appear perfectly healthy for up to a period of several years before they develop signs of illness. The yeast colonizes the lining of the stomach and eventually plugs the glands and prevents proper digestion of food. It appears the longer they remain undiagnosed and untreated, the more serious the infection becomes. Symptoms include weight loss (called "going light" in budgies), regurgitation, decreased appetite, black stools (melena, or digested blood in the stool), and lethargy. The yeast can often be identified on a fecal wet mount, although not all infections can be readily detected by this method. The infection can be treated with oral amphotericin B (an antifungal agent) and even cured. However, relapse is common, especially in older, more debilitated birds. For this reason, we recommend that ALL budgies and lovebirds, regardless of their apparent health, be screened for this infection.

Aspergillosis (Fungal Pneumonia)

Aspergillosis is a fungal infection., most often of the respiratory tract. Fungal abscesses can be seen in the nostrils or sinuses. Occasionally, fungal abscesses can grow in the trachea (windpipe). This appears to be a particular problem to African grey parrots. These tracheal abscesses can break free and lodge further down the airways, causing an obstruction. The lungs and air sacs can also be infected. Fungal spores are inhaled from the environment. These spores are naturally found in the air, but are found in higher amounts in soil and moldy, poorly ventilated environments. Birds with suppressed immune systems are more susceptible. Birds usually present with swellings on the head or with severe respiratory difficulty. Diagnosis is done from cytology and culture of the abscess material. Blood tests (CBC, serology) can be helpful in making a diagnosis. Treatment can be challenging and is often lengthy. Because fungal spores are everywhere, good hygiene and good preventative veterinary care are the best ways to prevent this disease. Aspergillosis is not contagious from bird to bird or bird to man.

Teflon (PTFE) Poisoning

When ANY product containing polytetra-fluoroethylene (PTFE) burns over 536 F (280 C), lethal fumes are released. These fumes may go undetected by people, but any birds in the area (including upstairs, or even in adjacent apartments) are seriously at risk of DEATH. Serious symptoms (respiratory difficulty) are occasionally seen in people as well. Birds quickly develop difficulty breathing. They will breath rapidly, perhaps with their mouth open, hold the wings away from the body, sit on the floor of the cage, or even lose consciousness and die. If ANY bird in your home starts showing these symptoms, IMMEDIATELY remove it from the house and seek veterinary attention right away! Most routine use of nonstick cookware will not release the fumes. Never leave a nonstick pot or pan unattended and never preheat it without anything in it. Many bird owners are uncomfortable taking any risks and will get rid of all nonstick bakeware.

Sources of PTFE

Nonstick Cookware:	Teflon, Silverstone, T-Fal, Supra, Resistal
Nonstick drip pan	Irons (Nonstick Sole Plates)
Portable Heaters	Stir Fryers/Woks
Pizza Pans	Nonstick Stainless Steel
Self-Cleaning Ovens	Heat Lamps and Bulbs
Breadmakers	Curling Irons
Hair Dryers	Cookie Sheets
Griddle Pans, Skillets	Stovetop Burners
Waffle Irons	Deep Fryers
Roasting Pans	Cake Pans and Molds
Coffee Makers	

Lead and Zinc Poisoning

Symptoms of lead or zinc poisoning can be vague (sick bird signs) or can include gastrointestinal stasis (swollen crop, regurgitation) or neurologic problems such as incoordination, weakness, staggers, and seizures. Diagnosis is made by running whole blood lead levels or plasma zinc levels. These tests can take 2-5 days for results. Metallic objects can often (but not always) be seen on X-rays. Treatment usually consists of 5 days of an injectable chelator (CaEDTA) followed by an oral chelator (DMSA or d-penicillamine) given at home. Prognosis is good if the bird can be stabilized and the metal can be eliminated from its system.

Sources of Lead

Lead-based paint (pre-1976)	Curtain weights
Fishing sinkers	Old lead bird toys
Improperly glazed pottery	Batteries
Spilled lead shot	Some artist's paints
Putty or window caulking	Antique foils
Industrial pipe dope compounds	Tile, linoleum
Lead-containing mini-blinds	Tire weights
Some wine/champagne foil, corks	Solder
(Stained glass, Tiffany lamps)	

Sources of Zinc

Galvanized wire cages, toys, chains, keys
Galvanized water and food dishes
Hardware cloth
Zinc hardware (washers, nuts, wire)
Pennies (after 1983)
Certain combination or Master locks

Medicating Your Pet Bird

If your bird has been prescribed medication, it likely will come in a liquid form with a pre-marked syringe so you can draw up the exact amount of medication you will need. Draw up the dose ahead of time. If you're giving more than one medication, get all doses drawn up in advance in separate syringes (if you're talented, it's OK to combine most medications into one syringe just before giving them). Like everything, there is a learning curve when it comes to medicating your bird! At first it will seem like you're medicating the walls, the ceiling, yourself... Over time, you and your bird will become better at it (and your bird will become better at evading you). It is best to gently restrain your bird with a towel. You can corner your bird in the cage with a towel, aiming your grip for around the neck. Ideally, you should capture your bird in the cage so it does not escape and fly off. Don't worry too much about choking your bird. The trachea (windpipe) is solid around the circumference, unlike ours. In humans, the back portion of the trachea is like a membrane and can collapse when compressed. The trachea of a bird will not collapse when you hold it gently but firmly around the neck. Gently wrap the towel around the body. Hold the bird against your chest, as if it were perching on your chest. Its head should be upright and slightly tipped forward. You may need to hold the head securely with your fingertips against the cheeks. Slowly dribble the medication into the corner of the beak onto the tongue. Sometimes, prying open the upper beak with the syringe works. If at any time your bird starts to cough or sputter, or medication appears out the nose, put your bird down and forget about that dose. Many medications can be highly irritating if aspirated. Call for advice if your bird continues to have problems with oral medications.