

## Basic Bird Health Care

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**Beak**-The beak grows constantly and should wear down with normal activity. Normal, healthy birds do not require beak trimming. If not, it overgrows and must be trimmed. Do not be fooled into thinking that an overgrown beak is merely due to 'not using the cuttlebone.' Quite often it is an indication of a disease condition. One of the most frequent causes of beak overgrowth and abnormality is hepatic lipidosis. Veterinarians should exercise caution whenever a bird comes in for a beak trim. Is it truly a grooming problem or a symptom of disease?

**Nails**-Nails should be trimmed short to prevent breakage and subsequent hemorrhage. Activity on a variety of surfaces (not just a round perch) will contribute to better care. Cement perches have been shown to be helpful in preventing overgrowth.

**Feathers**-When a feather has grown in completely, it will remain until it is plucked out of the follicle or a new one grows in at the time of molting. The follicle cannot distinguish between a complete feather or a broken / damaged one as long as the base in the follicle is intact. During the molting period, the old feathers are replaced with new ones. However, once feathers have become dirty, damaged or oily, they will remain so until the next molt. This could occur due to smoke, dust, poor cage conditions, malnutrition, overpreening, parasites, metabolic disease, certain medications, and greasy cooking. Dirty or oily feathers should be cleaned. Routine bathing or misting with plain water can be helpful, but in more extreme cases a mild dishwashing detergent can be used.

**Preening**-Preening is an activity which cleans the feathers and helps to restore feather integrity (like a person combing their hair). A normal, healthy bird will spend a large part of the day preening, while a bird that is ill quite often ignores feather grooming. With new feather growth, the bird must preen constantly to remove the protective sheaths from the developing feathers. Bathing, spraying, or misting will encourage preening.

**Bathing**-It is a very important part of the preening process, so it should be encouraged. Some birds enjoy bathing in a dish or birdbath, others roll in wet greens and some prefer to be showered or misted/sprayed. Plain water is all that is required to maintain good feather quality. Birds can bathe several times a week if they enjoy it.

**Molting**-Molting is the period of time when a bird is regenerating new feathers and shedding the old ones. Within two weeks of the loss of any feather, a new one should be replacing it. If excessive feather loss and baldness is occurring, veterinary evaluation is recommended. Ragged looking birds are sick and are probably affected with some deeper underlying problem.

Some birds follow a definite seasonal pattern to their molting period, which usually lasts for one to two months. This can occur one to two times a year. More typically, birds seem to shed their feathers on a small scale throughout the year with heavier episodes of molting once or twice a year. Perhaps this is due to the abnormal photoperiod and temperature fluctuations they face in captivity.

Molting is a time of stress, which may cause the bird to be susceptible to infection. Quite often the bird is quieter than normal or may seem to have an attitudinal change. Male canaries usually stop singing during the molt and will resume when it is completed. Nutritional needs increase during the molt. Prolonged periods of molting may also be indicative of disease or a nutritional problem. Special measures should be employed to minimize stress and prevent disease.

1.Heat-Guard against chilling by increasing the ambient temperature. If the bird is ruffled and definitely chilled, construct a homemade incubator with a heating pad on the side of the cage perpendicular in relation to the perches with the whole cage wrapped in clear plastic wrap. This positioning will enable the bird to sit closer to the pad for more heat but be able to move away if less warmth is desired. Punch holes in the plastic wrap for ventilation. Sometimes an additional cage cover can be added. An infrared light or a 150-watt light bulb could be used as alternative heat sources. The temperature should be maintained at 80-85 degrees F. If the bird is still ruffled and close to the heat source, then more heat may be required. Should the cage temperature become too hot, the bird will start breathing rapidly and open-mouthed, hold its wings out from the sides of the body, and the feathers will be held so close or tight to the body that the bird will appear unusually thin.

2.Rest-Longer periods of rest are needed-12 to 16 hours of darkness. A quiet area free from disturbance is helpful to enable rest. A cage cover is beneficial.

3.Security-Feather picking and other vices are more apt to begin during the molt. Try to keep the bird as stress free as possible during the molting period.

4.Quality diet and supplementation-Excellent nutrition is important during the molt. It is advantageous to feed a bird a balanced diet, such as pellets, during the molt. This will make the molting process less stressful because of the higher plane of provided. If the bird is on a poor diet, supplementation is required during the molt. Double doses of vitamins are recommended during molting, as they play a role in proper development of the feathers as well as being useful during any stressful period. Mineral supplementation is required in the growth of feathers. Increased protein intake during feather development is important as protein is the key element in the feather. In certain instances of molting, even a bird that is on pellets may need some additional nutritional supplementation.

Blood Feathers-Blood feathers, also called pinfeathers, are new feathers that are growing in during the molt, but will usually develop after a feather was plucked entirely out of the follicle. New feathers have a blood supply that is delivered through a small hole in the tip of the quill. The shaft of a blood feather will appear either bluish or pink due to the presence of blood and if

the shaft is damaged, hemorrhage will occur. Broken blood feathers are one of the most common emergency situations that an avian veterinarian has to deal with in practice.

When a bird is bleeding, the source of hemorrhage should quickly be identified. If it is a broken blood feather then the shaft of the feather should be grasped firmly with fingers, hemostats, pliers, or tweezers and pulled out in the direction of feather growth. Merely applying some form of hemostasis at the broken end of the feather and not removing the entire feather may result in the clot dislodging, causing further bleeding. Pressure and clotting powder should then be applied to the feather follicle. A cotton tipped applicator, dipped in the clotting powder, can be precisely applied to the follicle, which can also apply direct pressure to the follicle promoting hemostasis. Most bleeding episodes can be controlled with powder to aid in clotting, combined with steady pressure. Frequent dabbing or rubbing may interfere with clot formation, as will wing flapping. After the bleeding has been controlled, the bird should be placed in a covered cage or darkened room and periodically checked for bleeding. A follow-up visit to a veterinarian is extremely important. Agents that can be used to stop bleeding include, styptic powder, styptic pencil, silver nitrate sticks, commercial products such as Quickstop™, Monsel's™ powder (ferric subsulfate), Clotisol™, and common household materials, cornstarch, baking soda, or flour.

**Feet**-Infections of the feet can occur in spite of adequate perches. Perches must be clean, there should be a soft perch available, and the perch diameters should vary. Any weight shifting, redness, swellings, crustiness or sores on the feet / legs or lameness are abnormal and should receive veterinary care. Unless specifically indicated for treatment by an avian veterinarian, no ointments or oils should be applied to the feet and legs. As the bird preens, this will tend to spread this material onto the feathers causing them to become greasy or oily. This, in turn, interferes with the insulative properties of the feathers and in some cases may lead to feather loss.

**Legs**-The sole purpose of the leg band is for identification. It should be removed to prevent problems, such as irritation or becoming caught on something leading to a leg injury. If the leg band is necessary, the banded leg should be regularly evaluated. The leg band should be freely moveable and there should be no signs of irritation, redness or thickening on the leg. Chronic irritation of the leg from the band can lead to swelling which may then trap the band and cause it to interfere with the normal blood supply to the foot. Eventually the foot would undergo necrosis with amputation required. This scenario occurs most frequently in canaries due to the nature of their bands. Bird owners may initially notice that the bird is limping or that the foot is turning deep red or, in severe cases, black. Unfortunately, they often believe that removal of the band will resolve the problem. In less severe cases, this may prove successful. However, more commonly the band is so tightly adhered to the leg that band removal is very difficult. In these situations the leg may be accidentally broken in the removal process or once the band is removed all that remains of the tissue under the band is bone, due to the necrosis of the normal tissue architecture.

Small bands can be carefully removed with sharp wire clippers or suture scissors. Stainless steel quarantine (open) bands can be easily twisted open and should never be cut off due to the risk of trauma to the limb. Most closed bands on parrots can be cut off with quality, sharp wire clippers. Closed stainless steel bands need bolt cutters, cutting attachment on a Dremel™, or some other

means. Unfortunately, most means of removing these bands have dangers and should only be attempted if the practitioner is experienced with the methods. Isoflurane anesthesia facilitates risky band removals.

Clients should be warned in a severe case of necrosis or if the band is embedded that damage, such as fracture, may occur in the removal process. They should be also informed of the possibility that toes or the foot may be lost, a certainty with blackening of the toes or feet. Following removal where there has been significant trauma, antibiotic therapy and bandaging is usually indicated.

**Skin**-Since the skin is protected by feathers, no special care is needed. As previously mentioned, never apply any oil or grease to the skin or feathers.

**Eyes, Ears and Nose**-A discharge from any of these areas indicates trouble. The area should be kept clean. Wipe the area with warm water or a mild antiseptic solution. Nothing oily should ever be applied to these areas unless recommended for treatment by a veterinarian. Discharges from these sites should receive veterinary attention.

**Uropygial (Tail/Oil/Preen) Gland**-Not all birds possess this gland which secretes an oily material that is used during preening. However, birds that do not have the gland preen effectively and if a bird had the gland removed surgically it will still preen normally. This gland should be checked annually during the physical examination. If the bird is pecking excessively at the top of the tail there may be a problem with the gland. Problems include impaction, infection or tumor.

**Weight**-Once a bird becomes an adult, the weight should remain relatively constant. Checking the weight occasionally, especially at the yearly physical examination, will provide valuable information about the bird's state of health. Merely looking at a bird will give no indication as to its weight due to the feathering. Feeling the breastbone may give some idea, but weighing on a scale is ideal.

**Sex Determination**-This can be difficult and mistakes are made as the reproductive organs of the bird are internal and few species of pet birds are sexually dimorphic. Some birds such as Eclectus parrots are obviously sexually dimorphic (male is green and the female, red) while in other birds it may be subtle. In most other birds there are no easy guidelines.

A reasonable guesstimate can be made with a few common species of birds. The cere (contains the nostrils) of the budgie is deep blue in most males and may be pale blue to dark brown in the female. A further subtle distinction may be made as the nostril of the female is usually encircled by a pale rim while the nostril of the male lacks the rim and is blue. Males also tend to be more vocal and more likely to talk.

Gray cockatiels can be distinguished when they have undergone their first molt at about eight months. Before this point of reaching sexual maturity both sexes have identical feathering. At the time of the first molt as the new feathers grow in, the head of the male becomes more yellow, the orange spots by the ears brighter, the bars (stripes or spots depending upon ones perspective) on the underside of the flight feathers disappear and the speckling of the tail feathers is replaced by

solid gray feathers. The female undergoes very little change but her colors may become somewhat brighter, however, they retain the bars on the underside of the flight feathers and the speckling of the tail feathers. Mutations of cockatiels such as lutino (yellow birds) and other color mutations are difficult to distinguish. Astute, experienced breeders determine sexes of very young cockatiels by behavioral differences. The males tend to be more vocal and rambunctious. This tendency can be helpful and also serve as a guide for the inexperienced because as the birds mature, the males are more vociferous and are more likely to talk. Breeders can also be reasonably sure of the sex of some babies due to the knowledge of their pairs and genetic backgrounds.

Canaries can sometimes be visually sexed but it may take a bit more practiced eye. In males, the vent region protrudes somewhat, while in the female the vent is more flush with the surrounding skin. The difference is subtle, but with experience, one's level of certainty can increase.

In certain cockatoos sex can be determined by eye color. Females that have become sexually mature will develop a red coloration to their iris, which is very distinct from the deep brown color of the male iris. Unfortunately, not all develop this color change. Some cockatoos with brown irises may be female, but are not quite sexually mature, and have not yet undergone the change or the iris may never change color. Therefore, a cockatoo with red irises is definitely a female, but one with brown irises may be of either sex.

There are numerous techniques to determine the sex of other species of pet birds that are quite questionable. Pelvic sexing is one method that many people used as a guide for sex determination. It involved palpating the pelvic bones on the ventral abdomen of the bird. Theoretically, male birds had very little space between the pelvic bones, while the females would have the bones widely spaced. Any one that has had extensive experience with birds of known sex realizes that this technique is unreliable, as wide variations exist between the sexes. Head shape, eye shape, size, beak width and other subtleties have been used, but their usefulness for sex determination depends on the skill of the evaluator and even so, can be quite difficult.

Except for breeding purposes, there is no real need, to know the sex of a bird. Experienced breeders do an excellent job and can sex certain varieties of birds with reasonable accuracy before selling. However, most parrots cannot be distinguished externally. When needed, a veterinarian could verify the sex through endoscopy. Surgical sexing is usually performed for breeders who would like verification of the sex of a bird and also an evaluation of the condition of the gonads as well as other organs, visualized during the laparoscopic procedure. DNA analysis of a blood sample has proven to be a safe and effective technique for sexing birds. It is performed by commercial laboratories and is widely used.

***Age Determination*** - A question that is frequently posed to avian practitioners and one that is difficult to answer accurately is 'how old is this bird?' With the success of hand-raising birds, many owners know the actual hatch dates of their birds. If a bird has been domestically bred and has a closed leg band, the year of hatching may be present on the band. The year will usually be a two-digit designation rotated 90 degrees in relation to other identifying information on the band. Quarantine bands placed by the USDA on imported birds provide no information as to the age of the bird. These bands are stainless steel, open and provide a three letter and three number

designation. The first two letters refer to the actual quarantine station (each station was given a two letter designation) and the third letter and three numbers are for identification of the particular bird.

If a bird does not possess an identifying band with the year of hatching or the owner has no documentation as to the hatch date, age determination is difficult. However, with experience, a relative estimate can be made to determine if the bird is reasonably young. When a bird matures it is virtually impossible to determine an age range. There are certain birds that possess features or colorations that intensify or develop with age. For example, yellow-naped Amazon parrots develop their yellow nape as they mature and the head of double yellow-headed Amazon parrots gradually develops more yellow coloration with age. Even so, there is no certain way with these birds to determine the actual age. Rather, it may just be determined that these birds are older and mature.

Fortunately, young birds can be assessed with relative accuracy. The anatomical feature to evaluate is iris color. Young birds possess a relatively dark iris. As the bird ages, the iris will gradually lighten in color until it matches that of an adult. Therefore a reasonable estimate of age can be given by evaluating the iris. The actual age cannot be given, but it can be determined that the bird is young. In budgies, another distinguishing characteristic is the amount of black feather lines on top of the head. In very young budgies, these lines (which are oriented parallel to the cere) are present all the way to the margin of the cere. As the bird matures, solid, non-striped feathers replace these lines by the cere. So a young budgie can be evaluated by the dark iris and the presence of the feather lines.

As one becomes more experienced, feather coloration, behavior, and other features can aid in age determination. It can be quite frustrating to the owner and an avian practitioner when only a relative estimate of the age of a bird can be given. But as beginning avian veterinarians see more and more birds of varying ages, they will begin to realize that once mature, there is no accurate way to determine age. They will see 50 and 60-year-old parrots or 14 and 15-year-old budgies that are indistinguishable from birds that are much younger.

***Annual Physical Examination by a Veterinarian***-Birds hide their problems so effectively that they need annual examinations by a veterinarian. This should include a hands-on physical examination, weight check, and laboratory tests of the droppings and the blood. Yearly reminders should be sent to avian clients to encourage them to come in for the annual physical examination.

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