AVIAN HEALTH CARE TIPS Animal Medical Center of Corona Barton C. Huber, D.V.M. "Dr. Bart" Corona, CA (951) 493-6771

Birds get sick for many reasons but there are two main categories where most of the problems lie. These two categories are the bird's environment and diet. After these comes trauma as a source of problems, but it runs a weak third. If bird owners can optimize their birds environment and diet, many problems which we avian veterinarians see could be avoided. This means that your bird can live a longer, healthier life and your wallet will also be spared much trauma! When you do need the services of a veterinarian, make sure that the veterinarian is an avian veterinarian who sees birds on a regular basis. It is not a bad idea to call around and talk to some of the local veterinarians who claim to be "bird experts" and ask them some questions, don't be afraid to ask for references either.

DIET

Poor or inadequate diet is the number one reason for illness in birds. Whether the illness is due primarily to the deficiency or the birds get a secondary infection, diet is the key. Dietary deficiencies cause a wide range of disease, ranging from poor feather color and feather picking to severe upper respiratory infections to egg binding in laying hens (a situation where an egg is stuck in the reproductive tract of the female bird). We will break diet into five

categories then offer some ideas of optimal or healthy diets for your bird(s). The five categories are: 1.) vitamin and mineral, 2.) protein, 3.)carbohydrates, 4.) vegetables and fruits, 5.) fats.

<u>Vitamin and Mineral</u>: Vitamin A deficiency is the most common single dietary deficiency or problem seen in cage birds. Vitamin A may be provided as actual vitamin A or as beta carotene, the advantage of beta carotene is that you cannot give too much to your birds where as vitamin A, if over-supplemented could cause liver and bone disease. Many foods are high in vitamin A and this list, along with other healthy fruits and vegetables will be provided in the vegetable and fruit section. Vitamin D_3 is the next most common problem, vitamin D_3 is essential for healthy bones, feathers, and egg laying, without this vitamin, the body cannot properly use calcium. Natural sunlight will allow the body to produce normal amounts of this vitamin so will using vita lights or other full spectrum lighting if indoors. Windows absorb too much of the UV light necessary for vitamin D_3 so placing your bird by a window will not work. Vitamin supplementation is an easy and inexpensive way to ensure your bird receives proper amounts of all vitamins. It is important to use vitamins made for birds as they will contain vitamin D_3 . Your bird will not properly utilize other forms of vitamin D, they need to have D_3 . The rest of the vitamins are also necessary, I just wanted to review the two most important ones.

In the case of minerals, calcium is the most important. The only birds that require extra calcium in their diet are African Gray parrots, Blue Fronted Amazons, and any bird laying eggs. All other birds will receive enough calcium from a good vitamin/mineral supplement. Cuttle bone, mineral blocks, manu blocks, oyster shell grit, and D-CA-PHOS (Fort Dodge) are all excellent and natural sources of calcium. Do not overdose your birds with the food additive type of calcium supplements as it may cause calcification of their internal organs. Another special need element is the Budgie's (classic parakeet) need for iodine. Without iodine they will develop thyroid goiters, a condition leading to thyroid hormone deficiency. Iodine is a necessary component of thyroid hormone and budgies seem to need more than other birds. Other birds do not need this supplemented in their diet. The best way to get this to your Budgie is to place a drop (one single drop) of tincture of iodine, available in most drug stores, in their drinking water once a week. If there are any questions, please consult your avian veterinarian.

The best types of supplements to give your bird are the powder forms that go on the food. Water-soluble types are not as good as they are low in the fat-soluble (A and D_3) and vitamins break down fast in water losing potency and increase the growth of bacteria. A few brands I would recommend are Prime, Avia and Superpreen. Another supplement I would recommend in addition to vitamins would be Micracine, a lactobacillus/herbal combination that may boost the immune system and natural defenses in birds with chronic illness or recovering from illness. Only buy enough vitamins to last 6 months or less as they slowly lose their potency when exposed to air. Vitamins/mineral supplements are utilized best when mixed with wet foods not seeds or pellets.

Protein: Birds do need protein in their diet, the amount and type varies on the bird's activity and age. More active birds (show birds and birds in large flights that fly around a lot) and breeding birds (egg laying hens, parents feeding their young) and growing birds need more protein than the average caged pet bird. Older birds or birds with certain metabolic diseases such as liver and kidney disease or gout need less protein. The quality of the protein is also important. While many seeds have decent amounts of protein, the quality is not that great unless the bird eats all the seed types in the mix in proper proportions. Since this is not realistic, I prefer to give the birds pellets. Seeds are also very high in fat and most birds prefer the taste of seeds to other foods, this may lead to obesity as well as deficiencies. There are many brands of pellets available, stick to the brand names, avoid new comers to the market that are not from a regular bird food manufacturer. Many of the pellet companies have a variety of pellets for your birds needs, consult your avian veterinarian if you are unsure of which type to feed your bird. Many birds that have been on seed will not readily accept the pellets. You may need to "cold turkey" them on to the pellets by withholding their seeds, make sure they have plenty of water and "wet" foods. If you are uncomfortable doing this type of change over, you can offer your bird a mix of pellets and seeds or place an additional bowl of pellets next to the seeds. You may want to offer a limited amount of seed so that your bird is hungry enough to try the pellets (this holds true when offering any new food to your bird that they do not seem to want). Birds are like young children, they will not make wise nutritional choices on their own, and are usually afraid to try new things. Be patient whenever you are attempting diet changes or offering new foods to your birds. If your bird will not eat pellets or you want to offer seeds, their diet should be no more than 20-50% seed (depending on their activity levels and whether they are outside or inside and the environmental temperature). Avoid sunflower seeds unless using the new low fat sunflower seeds available, the birds really enjoy the taste of sunflower seeds and will preferentially eat them over other foods. They are high in fat and not very nutritious. If you want to give your birds sunflower seeds, use them as treats or rewards. Other good sources of protein for your bird are non-fat cottage cheese, regular cheese (high in fat), lean cooked meats (beef and poultry) and well cooked chicken bones. Give these protein sources once or twice a week in addition to a balanced diet offered daily.

<u>Carbohydrates</u>: There are two forms of carbohydrates, simple and complex. Simple ones are the sugars, they are rapidly digested and absorbed and are not very good for your bird. Avoid giving treats that are high in sugar, never give your bird chocolate as there is a substance in there that can kill your bird. Fruits are high in sugar and therefore need to be given in moderation. Complex carbohydrates are the starches. These are great energy sources for you bird and serve as building blocks for non-essential amino acid (the building blocks of protein) and fats. Your bird should have starches in its diet in the form of cooked rice, beans (good for protein as well), cooked potatoes, pizza crust, pasta, corn, and tortillas.

<u>Vegetables and Fruit</u>: There are only a few things your bird should not have in this group of foods. One is avocado, there is a substance avocado that is fatal to birds and there is no treatment once they have eaten it and get sick. Iceberg lettuce is mostly water and has little nutritional value, birds seem to like it

and will eat it over other good vegetables. The following list is not complete but contains many of the vegetables and fruits that are high in vitamin A or beta carotene: broccoli, dried red chili peppers (birds do not salivate so they do not detect the hotness of these peppers like you or I would but if your bird kisses you after eating some of these, watch out!), sweet potatoes and yams - cooked or raw, carrots, winter squash, pumpkin, red cabbage, mustard greens, brussel sprouts, spinach, kale asparagus, parsley (give sparingly), dark leafy lettuce - not iceberg lettuce, papaya, apricots, peaches, mango, cantaloupe, cherries (may turn stool or droppings a dark red color which looks like blood but is harmless), and watermelon. Many of the other vegetables not listed are O.K. to eat. You can use fresh or frozen vegetables, but avoid canned vegetables as they are processed and have had most of the good nutritional value destroyed. You can give these raw or in the case of frozen, thawed out. Cooking is not necessary (you may find that your bird prefers cooked yams and sweet potatoes over raw, just make sure they have cooled down). Your bird can eat as many vegetables as it wants, that's O.K., but avoid too much fruit as it is mostly sugar and water and therefore, not all that nutritious. Always wash fresh fruits and vegetables thoroughly before feeding. If you use fruit cocktail, buy the type with no sugar or syrup added. Your bird's droppings will get more watery when you feed them fruits and vegetables, especially with fruits. Do not mistake this for diarrhea, it is usually an increase in urine production due to the high water content of these types of food, or in other words, water in, water out! The fecal portion of the dropping should remain formed but you will see less of the white stuff (urates) and more "water" (urine). This is O.K. If the fecal portion is also unformed or has an odor, then you need to have the bird checked. Remember, your vet needs to see the droppings so do not clean the cage before your visit.

<u>Fats</u>: Fat deficiency is rare to non-existent in birds, especially in the pet bird. There are cases where birds require a certain type of oil in their diet, but fat is usually quite plentiful. Most cage or pet birds tend to have diets that are too high in fat. This is usually due to a high seed intake. Most seeds are high in fat, a good rule of thumb is the larger the seed, the greater the fat content (by percent of makeup), sunflower seeds are the largest contributor to obesity in birds. Peanuts are another high fat food that birds love to eat, so offer them as treats only (or not at all). Large nuts are also high in fat. Seed treats like honey sticks are very high calorie, high fat foods and should only be given to your birds once a month or less. Many people think that since these birds eat high fat foods in the wild that they need them in captivity, however, your bird is not getting the exercise that a wild bird gets when flying around looking for food! Besides, if a wild bird gets an obesity problem, it falls easy prey for a predator or gets sick and dies, not a good outcome.

The best way to minimize your bird's fat intake is to minimize fatty foods. Seeds should constitute only 20-50% of the diet if you want to feed seeds. Pellets are good, since they are low in fat, your bird can eat all it wants and won't get fat! If you bird likes regular cheeses, give them sparingly. The yolk of hard-boiled eggs is high in fat and should be given judiciously; egg whites are a good protein source and have no appreciable fat content. Chicken and turkey skin and meat trimmings are very high in fat and should be avoided. Do not supplement your birds diet with any fats or oils unless you consult your avian veterinarian first.

THE OPTIMAL DIET

What should your bird eat? Here are some suggestions, this is offered only as a guideline, some variation is O.K. A good rule of thumb is that anything that is good for a human with a heart condition (remember, no avocado or chocolate!).

Diet 1. Maintenance pellets (Roudybush, Pretty Bird, Exact, etc.) offered on an as eat basis. If your birds are breeding/laying, you may need to go to a pellet designed for production. Offer vegetables and fruits - 75-90% vegetables, the rest fruit, daily, mix your vitamins in with this. Change the bowl daily, clean and disinfect it on a regular basis. If you live in a humid climate, you may need to change this bowl two to

three times a day to prevent spoilage. Offer daily table foods, part of your breakfast, lunch, or dinner if you want. Remember, moderation is the key. Treats such as honey sticks and nuts should be given once a month or less.

Diet 2. Use a safflower based seed mix in place of the pellets. Sunflower and peanut type diets, while they taste good, are too high in fat and not nutritious enough for your bird. If there is leftover seed at the end of the day you are probably offering your bird too much seed. Make sure your bird eats the other goodies. Some times it is best to offer seeds twice a day for 15-30 minutes then remove the seed bowl so the bird will eat the other foods. (If your bird is overweight despite a low fat, healthy diet, consult your avian veterinarian.)

Diet 3. This is not really a diet as much as a place to put table food! Offer your bird what you are eating. Do not offer your bird food off your fork or spoon, out of your mouth, or anything you have bitten off of as this is a great way to make your bird sick. The bacteria in our mouths are not good for your bird.

Another treat you can give your bird is Zu-preem Monkey Chow. This is a good brand since it is not oily and has a low bacterial count. Purina Monkey Chow is very oily and has a high <u>E.coli</u> count so it should not be used. Dog and cat food, while a good source of protein and a balanced meal, is designed for dogs and cats. It is high in bacteria, which will not hurt your dog or cat but could get your bird sick. With all the good commercial diets available for your bird, using foods formulated for other species is not really necessary.

Water: Birds need plenty of fresh water, not only for drinking but also for bathing. If your bird does not like to take baths, there is nothing wrong with him; he just does not like to take baths! The water bowl should be large enough for the bird to get its head into, not just his beak. You should change your bird's water daily, if your bird is a messy eater, or likes to dip his food in his water, you may need to change it more often. Depending on the number of birds and their location, the water bowl(s) should be disinfected on a regular basis. This will be covered in the section on disinfecting. It is best to use bottled or filtered water since many municipal supplies are borderline at best and may be high in minerals and contaminants. Tap water sometimes has low levels of bacteria, which may be harmful to your bird. Water that is safe for human consumption is not necessarily safe for your bird! If your bird has a habit of defecating in its water then you need a covered or hooded bowl for water; this helps to keep the water clean. You should never add anything to your bird's water without consulting with your avian veterinarian. As mentioned earlier, vitamins should not be added to your bird's water. Your bird may like to be misted with a spray bottle on a regular basis. If this is to be done, make sure that the water is fresh and has no additives. Outdoor birds should be provided with misters or sprinklers that can be turned on in the hot weather to help cool the aviary as well as allows your birds something to play in.

ENVIRONMENT

This is another very important area that you need to pay attention to when you have a feathered friend. Cage, location, lighting, noise, routine, toys, perches, cleaning/disinfecting, Teflon and other toxins, heat and drafts are all important factors. Bathing will also be covered at the end of this section.

Cage: The cage should be large enough for your bird to spread and flap its wings without hitting the bars. Cages are important as they protect your birds from the "outside" world (other pets, children, friends and relatives) as well as keeping the bird out of trouble. Birds are like two year olds; they should not be left out alone because they have a way of getting into trouble. Many a nice piece of furniture and curtains have been ruined by an all too curious bird. Lead poisoning in birds is usually due to the bird being left out alone or unattended and he finds something neat to chew. If the cage is painted, make sure it is with non-

leaded paint, the label should read safe for children/infants, contains no lead. If the cage is painted and is of questionable or unknown origin, have the paint removed and re-apply the proper paint. It is imperative that the old paint be removed, not covered, as the bird can chew through the new layer of paint to the old layer. Playground areas are nice for your bird; they allow exercise and "fresh air" and a time to socialize with other birds in the house (if they get along!). There are many types of playgrounds; wood and PVC are the most popular, make sure the perches are the right size for your bird's feet. If using PVC, make sure that it is either roughened or has a gripable material on it so that the bird will not slip. More about perches will be covered under the toy and perch section.

Perches and Toys: The best perches are the natural hard woods such as manzanita, ribbon wood and eucalyptus (very hard when it dries). Other woods may or may not be safe but it is best to stick to one of the three mentioned above. PVC, as mentioned earlier, is also a popular perch/playground material which is easy to clean. If you cover it for better grip, use a material that can be easily changed for easy cleaning. Terra cotta is a recently introduced perch material that seems to work well, is sage, and does seem to help keep the nails a bit shorter. Another new perch material is rope. These perches are fine except they are easily destroyed by larger birds and need to be replaced often as the frayed and loose strand may entangle your bird's feet. With any of the perching materials, varying diameter perches need to be offered to prevent fatigue to the bird's feet and simulate more natural perching behaviors. Sandpaper covers should be avoided as they may irritate the skin on the bottom of the feet and lead to bumble foot, a seriously debilitating foot disease. Toys should be made of very strong materials, especially for the larger parrots, macaws, and cockatoos. Large dog choker chains are very good for suspending things. Dog chews such as the large one-piece cowhide (do not use pig ears) can make fun and chewable toys. Many of the acrylic toys, while expensive, are excellent and safe toys. Human infant teething toys that are not fluid filled are good for young birds that are still developing jaw strength and for small birds of all ages. It is natural for birds to be destructive so do not be surprised when your macaw or cockatoo (or even some of the other birds) break these "unbreakable" toys and perches. Expect to buy more and you won't be let down.

Dishes: Ceramic, plastic, and stainless steel are your best bets. All are good and depend on your birds needs and the design of the cage. If you get ceramic crocks, get them from a reputable manufacturer that has lead free claims. If the glazing gets chipped off, and it will, the porous clay underneath is easily chewed off by your bird. If there is lead in the clay, your bird could end up being poisoned. Always replace crocks with chips or cracks. I have found that many of the high impact plastic bowls that clamp on the cage are easy to use, easy to clean, cheaper than other bowls, and come in many colors. These are my personal favorite. Disinfect your bowls on a regular basis; see the section on Disinfecting.

Light: Outdoor birds enjoy the benefit of natural sunlight. If your birds are outdoors, make sure they have access to sunlight but also make sure they have a way to get out of the sunlight or adverse weather conditions if necessary. Indoor birds need 12-16 hours of light a day. It is best to keep your bird(s) on the same schedule so their internal clocks are not constantly being reset. Fluorescent lights, especially full spectrum or gro-lights, are better than incandescent lights. The UV component of full spectrum lights is important for the natural production of Vitamin D_3 . If D_3 is provided in the diet via supplementation then the type of lights are less important.

Noise and Routine: There are multiple theories on these two subjects. I have found that most birds will get use to whatever they are raised with. Birds raised in quiet homes with very strict routines do not do well when placed into a more hectic situation. My own birds are very use to a "non-routine" routine of lighting, feeding, and cleaning schedules, being up at midnight was no big deal to them! Certain birds like the African Gray Parrots are more susceptible to change. It is important when a change has occurred that the bird is watched closely for signs of illness or unhappiness. These include excessive sleeping and

fluffing, decrease or loss of appetite (watch for change in droppings), decreased vocalization, aggressive behavior, etc. If any of these should occur, call your avian veterinarian as soon as possible.

Heat and drafts: The ambient (air) temperature of most homes is adequate for your bird. Sudden changes in temperature are not good but the changes that occur in our every day living are not drastic. If you are going away, make sure you leave your thermostat set such that your indoor pets, if left behind, do not experience sudden temperature fluctuations. They will be stressed enough with you being gone there is no need to make things worse. Birds should never be placed near vents, ducts, or drafty windows and doors, as they are unable to get out of the way of these airflows and can become sick after prolonged exposure. If your bird is sick it is important to provide them with plenty of heat and comfort. This does not replace a proper veterinary exam but may be part of the at home treatment recommended by your vet.

Teflon: Cookware coated with non-stick surfaces should not be used if there are birds in the house. When new or over heated they emit Teflon gas which is odorless, colorless, and harmless to mammals. It is fatal to birds; there is no known antidote. If you have Teflon coated cookware (pans, waffle irons, etc.), either get rid of them or make sure you keep the bird(s) on the other side of the house with windows open while using them. There are very good stainless and cast iron cookware available, that when used properly, are also non-stick. If you burn or over heat coated cookware, open all windows immediately and get your bird as far away as possible from the source.

DISINFECTING

A clean environment is just as important to preventing disease and disease spread as is good nutrition. Many diseases can be contained or prevented with proper disaffection. A detailed analysis of disinfecting with all the various chemicals could easily become a book. My goal is to give you a brief overview of what I know will work under most conditions. In time of certain disease outbreaks, the rules become more stringent check with your avian veterinarian if you are having an on going problem that you have not been able to resolve. Do not be afraid to ask for a second opinion. I will discuss only two classes of disinfectants that should be used in the average bird owner/breeder home/aviary. The first group is the quaternary ammonias such as Kenosol. Roccal-D (hard to find in California), Neon Pet Products and Pursue (Amway), just to name a few. They are good at killing Chlamydia (psittacosis), Psittacine Beak and Feather Disease virus (PBFD), Pseudomonas bacteria, and Polyoma virus. Make sure they are listed to kill Pseudomonas, many times the product needs to be used at a stronger concentration to kill the bacteria. The other class of chemicals is the chlorinated compounds. The most notable of these is bleach. Bleach used at 4 ounces per gallon of water will kill just about anything. Bleach is inexpensive but can be very awkward to use due to its odor and ability to ruin clothes and carpets. A new member to this group is the stabilized chlorine dioxides. The most notables of this group are Oxygene and Dentagene, both by Oxyfresh. This would be the best product to use during a Polyoma outbreak or during the handfeeding period in and aviary. Due to its expense, it may not be appropriate for pet birds, non-breeding birds, or in the off breeding season.

In multiple bird household and aviaries I recommend disinfecting wet food and water bowls daily, They should be cleaned with hot, soapy water to remove as much debris as possible then soaked in disinfectant for 20-30 minutes. In homes with one to two birds, the bowls should be cleaned daily and disinfected once a week. Cages may be periodically washed then sprayed with disinfectant and left to airdry, once dry, hose with fresh water. Make sure you remove the bird first!! The frequency at which you wash and disinfect your cages depends on how dirty they get and how many birds you have. The more birds you have, the more often you need to disinfect. Perched should be brushed with a wire brush as needed to remove dried feces and food, they should be replaced twice a year or as needed.

Flooring in the bird room should be easily cleaned, if your birds are on carpet, put some plastic under their cage to facilitate cleaning, your carpet will appreciate this as well as your self. Linoleum and tile can be mopped or hosed on a weekly basis, after cleaning, coat the floor with disinfectant and let it air dry, then mop it with warm water. If you cannot remove the birds from the room when cleaning the floor, make sure there is plenty of ventilation and that you do not spray the birds with disinfectant.

If you will be disinfecting electronic equipment or equipment which cannot get wet then you need to use an aerosol that contains an ortho-phenyphenol disinfectant. These are capable of killing all the problem organisms, it even kills tuberculosis, a problem seen occasionally in wild caught or imported birds. Two brands I can think of are Pursue Broad Spectrum Disinfectant Deodorizer Spray (no TFHC, environmentally friendly) and Lysol Disinfectant Deodorizer Spray. Spray these in to or on to the appropriate area, including fan and motor housings, and let air dry. If spraying in to a fan or motor, turn off before spraying and let sit for 30 minutes before starting again.