Household Hazards for Pet Birds

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Introduction

Birds are totally reliant upon us for the maintenance of their environment. Their longevity, freedom from sickness and stress are dependent upon our quality of care. We must provide adequate shelter and proper nutrition for a long and healthy life. Many household objects can be dangerous and sometimes fatal for pet birds. Natural curiosity, powerful beaks and the ability to fly can lead to harm if birds are not carefully monitored.

The Cage

The cage should be of the proper size for the variety of bird. Ideally speaking, no cage is large enough. There is the potential for injury if the cage is too small. In addition, a cage of improper size can lead to battered wing tips as well as damage/fraying to wing and tail feathers. It is truly a shame to see the damage done to the beautiful tail of a macaw if it is placed in an inadequately sized cage. The cage should be constructed of a material suitable for the type of bird. It must be of sturdy construction for the larger birds as they can easily dismantle a cage designed for a smaller bird.

The material used in the construction of the cage should be non-toxic. If the cage is wood or if you are fabricating your own cage, make sure that the wood has not been treated with wood preservatives as they have the potential to be poisonous. Psittacine birds have a great need to chew so that over time there is the potential that they may acquire sub-lethal levels of toxic components. Some toxic preservatives include, creosote, bitumen paint, naptha compounds and pentachlorophenol to name a few. If a preservative is to be used be sure it is non-toxic. Avoid materials containing lead such as solder or lead-based paint. That old cage from Grandpa's attic that had been repainted might have been repainted with lead-based paint.

If you are using galvanized metal in your cage be aware of "new wire disease" which is a frequently encountered heavy metal poisoning caused by the zinc in the wire. Galvanized wire and clips used to construct cages or galvanized containers and dishes, which are not properly treated, are common sources of zinc. The white rust on galvanized metal is also toxic. The brighter or shinier the metal the more zinc is present. Scrubbing the galvanized metal with a brush and a mild acidic solution (vinegar) will remove the ‘loose’ zinc and can reduce but not totally eliminate the risk.

Birds suffering from new wire disease may show GI problems, drink and urinate excessively, lose weight, exhibit weakness, anemia, cyanosis and seizures. A blood sample checking for zinc levels can confirm the disease. Most often the diagnosis is made through the clinical signs coupled with exposure to an improperly treated galvanized surface. Clinically and radiographically zinc toxicity is difficult to distinguish from lead poisoning. Fortunately the

treatment for both conditions is the same, CaEDTA, an agent that 'chelates' or combines with the metal in the system to prevent further absorption.
Proper bar spacing is very important, particularly when a smaller bird is placed in a large cage. Too wide of bar spacing could lead to escape or worse yet, trapping of the head between the bars. It is a good idea to check the cage for any sharp edges or projections that may pose a hazard. Larger birds will damage a cage over time so it is recommended that you be on the lookout for any loose or bent pieces of metal, which could cause injury.

Cage Furnishings

Perches

The perches should be made of an easily washable material and thoroughly cleaned regularly. A variety of perches, including various diameters, flat perches, and different surfaces may help to even out wear on the bottom of the feet and prevent pressure sores/ulcerations. Branches from the outside make great perches, however, they should be prepared by baking at 250 degrees F for 10 minutes. Care must be taken if the branches had been sprayed with insecticides/herbicides as even tiny amounts could be lethal to a bird.

Cage Toys

Bird toys should be suitable for the particular variety of bird. Large birds can easily dismantle or destroy toys designed for smaller birds. Glass mirrors are hazardous to large birds. Watch for sharp edges and hooks on toys as they may lead to severe injury. We have seen many birds impaled on hooks used to secure certain toys. Bells may be removed from toys by larger birds and become lodged on the beak. For some reason the most frequent victim of this mishap, in my experience, is the lovebird. Certain toys contain lead weights. Some toys that are safe for smaller birds have the potential to be dangerous to larger birds as they may crack open the toy to expose the lead weight within (such as the penguin toy). It is important to avoid cluttering the cage with excessive toys and cage furnishings. We have seen some cages that are so packed with paraphernalia that it is a wonder that the bird can move about inside at all and with that is a greater risk for injury.

Food and Water Cups

The cups should be made of an easily washable material. Ideally they should be cleaned daily to minimize bacterial contamination. The cleaning should be thorough, merely running your finger around on the inside of the cups is not enough. I feel that dirty water cups may be one of the greatest sources of infection for pet birds.

Water that stands for several days will pick up bacterial contaminants from the surrounding environment. The addition of vitamin and other supplements to the water make it even more suitable for bacterial growth. The condition will worsen when bits of food or droppings are in the water. I cannot emphasize how important a clean and fresh source of water is for the health of our pet birds. The food and water cups should be covered/shielded or placed in such a position that they are protected from fecal contamination. Too often do we see cups that have droppings in the food or floating in the drinking water.

Food

The food should be clean, fresh and from a reputable source. Mycotoxins are chemical metabolites produced by various species of fungi that grow on grains and foodstuffs. The toxin produced may be present even after the fungus stops reproducing. The amount of toxin present varies due to many factors, quite often it may be concentrated on certain areas of the grain causing 'hot spots'. The effects vary depending upon the type of toxin, species of bird, nutritional and physiologic status of the bird. A stressed bird on a poor diet is more likely to be affected than a healthy one. It is difficult to identify the disease as it mimics so many other conditions and quite often when the disease develops the offending food may no longer be present making diagnosis difficult. There is no specific antidote, rather prevent exposure as opposed to treating the condition. All foods and seeds made available to birds should be clean and fresh. Avoid spoiled foods and moldy or dirty grains, which may be a possible fungal source. Food should be stored in an area that is not damp or dusty. Special caution with poor quality corn and peanuts as these are common sources of toxin producing molds.

Many people refrigerate their seed. The "cooking" of seeds/pellets is a controversial topic. It is believed that by doing this, contaminating and potentially disease causing gram-negative bacteria will be eliminated or at least reduced in the food material. Opponents feel that the nutritional content of the food may be reduced. The temperatures recommended are 1) conventional oven- 350 degrees for 10 minutes and 2) microwave- 2 1/2 minutes at the low setting. After cooking, the food should be properly stored.

Fruits and vegetables should be washed thoroughly to remove any residual insecticide contaminants. Wash these foods better for your birds than you would for yourself. Birds are very sensitive to any insecticide sprays that may have been used.

Chocolate is not recommended for birds. It can result in hyperactivity, vomiting, diarrhea, heart irregularities, seizures, dark colored droppings and death. Progression of signs can be rapid if large amounts are ingested. Excess consumption of salt can cause problems. Avocados have been shown to be toxic for pet birds. At first only the pit was thought to be toxic but some studies suggest that all parts, including the fruit, are toxic. The actual toxin has not been described. There are several varieties of avocados that are commercially available which appear to vary in their toxic capacity. Signs of toxicity include ruffling, increased respirations, vomiting, weakness, anorexia and death. The progression is rapid, the lungs are especially affected. Treatment is non-specific, mainly supportive care.

Oversupplementation with Vitamins (Hypervitaminosis)

Especially important are vitamins A, D3 and calcium. Many formulated diets carry excess amounts of these nutrients and further supplementations of these diets with vitamins and minerals can result in life-threatening toxicities. Excess vitamin A can cause changes to the bones. Excess vitamin D3 can cause mineralization of certain organs, including the liver, stomach, intestines, and blood vessels. Can lead to increased calcium levels affecting heart and muscular activity. Excess calcium can lead to skeletal abnormalities.

Grit

The use of grit is another area of controversy. We recommend its use only sparingly as it is not continually required in the cage. A bird will retain grit in its gizzard and does not need to have it replenished daily. The problem is that sick birds (especially with digestive tract disturbances) will tend to overeat grit and this could lead to impaction. Observe the feeding habits of your bird as excessive intake of grit could indicate a problem. On occasion we have had clients with sick birds that thought they were still eating, when in actuality they were eating only grit. A constant source of minerals is required and plain grit is not that great of a source. Good mineral supplements include, cuttlebone, mineral block, crushed eggshells, crushed oyster shells, bones and commercial mineral preparations.

Bedding

We recommend paper as the droppings are more easily monitored as to their number and appearance. Carefully checking the droppings and watching for any unusual changes is an effective means of early detection of possible disease conditions. If corncob or wood shavings are used as bedding, an extra special effort should be made to periodically monitor the droppings as they will become lost in the bedding. The bedding must be from a reputable source. Dusty/dirty bedding may be a potential source for fungal (Aspergillus) or bacterial (Klebsiella) contaminants.

Nesting Material

Nesting material composed of fine threads should be avoided as it may wrap around the toes or legs and acting as a tourniquet, cutting off the circulation. This may lead to deterioration (necrosis) and loss of toes. The birds most often affected seem to be finches and canaries. Cedar chips and other aromatic woods in small nesting boxes may be hazardous. The aroma is too overwhelming in a small area and can be toxic, possibly leading to death.

Overgrown Toenails and Beaks

Check the toenails and beak regularly and be aware of overgrowth or unusually rapid growth. For example, in fatty liver disease of parakeets a rapidly overgrowing upper beak with areas of hemorrhage (seen as black spots) may be diagnostic. Deterioration and beak overgrowth may indicate Beak and Feather Disease in a cockatoo. Therefore it is very important to be a good observer as many such changes seen may help aid in the early diagnosis with better success in treatment if identified properly. Nonetheless, the usual problem caused by overgrown beak and toenails are impairment to eating and movement. If they are too long there is the potential for cracking leading to severe injury or hemorrhage.

Leg Bands

If they are not absolutely necessary for identification they should be removed. Bands are a hazard as they may become hooked whereupon the bird may injure its leg (sprain, dislocation or fracture). The band may also become irritating to the leg and possibly cause swelling and inflammation of the leg. There is a potential hazard that the band may become constricting on the leg and act as a tourniquet with resultant loss of the leg if the problem is not soon identified. This problem occurs mainly with canaries and cockatiels, although any banded bird may be at risk.

Always be certain that the band moves freely on the leg. Examine the legs periodically and watch for any unusual changes.

Dangers in the Household

Exercise caution whenever birds are allowed freedom in the house. Many seemingly innocent common household furnishings can be dangerous. If you are not at home to monitor your bird, it is best to keep it caged.

Windows/Mirrors

Windows and mirrors do not appear to be a barrier to flying birds. They may unwittingly proceed headlong into them, possibly causing severe injury or loss of consciousness. If your bird flies free try to keep these surfaces covered. If you want to prevent this type of injury it would be a good idea to keep the wings clipped.

Open Doors/Windows

The danger is obvious. The loss of a pet bird is not uncommon due to this and can easily be avoided if proper precautions are taken.

Open Containers of Water

The risk of drowning exists whenever there are open containers of water. Birds have drowned by falling into sinks, commodes, pots of water, etc. If your bird flies freely in your home, such containers should be covered. Caution must be exercised whenever your bird is nearby and you are in the kitchen cooking or at the sink.

Ceiling Fans

These can cause serious injury to flying birds. Surprisingly injuries from this occur much more frequently than you (and myself) would imagine. If your bird is free flying be extremely careful when the ceiling fan is in operation.

Loud Noises

Birds do have sensitive hearing so that loud noises can cause stress, leading to lowered resistance to infection or emotional problems such as feather picking.

Other Pets in the Household

A very frequent cause of injury for pet birds. A cat bite or cat scratch can be lethal to a bird unless properly treated. The bacteria from this type of cat injuries can cause a systemic infection, so even if the bird looks fine there can be severe disease developing. Seek veterinary care if it does occur for proper therapy. Injuries due to dogs are moreso due to blunt trauma or puncture wounds. We have had two instances of ferrets causing the death of pet birds, one of them being a cockatoo. Even though a bird may be large it may not be able to defend itself adequately. Jealous or aggressive birds may cause severe injuries to other birds in the household. Beaks can be traumatized or even ripped off. However, one of the more common injuries is of the toes. Toe lacerations, fractures, and amputations are seen if a bird lands on the cage of an aggressive bird or vice versa. So even if your pets seem to live in harmony, always be on your guard for potential

confrontations. Your pets relish your attention so that sometimes jealousy can motivate them to attack one another.

Cooking Food
Hot cookware, hot food and hot range tops can be dangerous. Remember, even though a burner is turned off it still remains hot enough to blister the feet of a bird for some time. A good rule is to keep the bird away from the range while you're are cooking.

Potentially Poisonous Compounds for Pet Birds
A listing of some poisonous compounds. Birds are particularly sensitive to many of these due to their small size and very efficient metabolism.
-agricultural/gardening chemicals -insecticide/herbicidal sprays
-rodenticides -mothballs (napthalenes)
-drugs in excessive quantities/improper usage -denture cleansing solution
-salt (in large amounts) -cigarette butts
-disinfectants (phenols and cresols used more concentrated than manufacturers recommendations)
With disinfectants people feel that if a little is good then alot is better. The disinfectants can lie in pools on the bottom of aviaries and dry on the perches. Adequate rinsings are necessary whenever disinfectants are used.

Lead Poisoning
One of the most common poisonings in avian practice. Due to their curiosity, birds will pick up objects, chew and occasionally swallow small fragments. Lead is absorbed into the bloodstream from the digestive tract. It is then carried to the brain and also incorporated into the bone. It can cause nervous system disorders and eventually lead to death.

There are many sources of lead around the household that you should be aware of as due to their inquisitive nature your pet bird could accidentally happen upon some. Lead is common in weights such as curtain weights, cuckoo clock weights, fishing sinkers, and some toys (usually within). Shotgun shot and bullets are obvious sources. Solder, putty, linoleum, mirror backing, costume jewelry, and some zippers are less apparent sources of lead. Ceramics not glazed to be food safe can contain lead. Wine bottle foil has been the source of lead poisonings on several occasions in our practice. The two most common sources of lead poisonings are lead-based paints and leaded glass. As most paints used now are not lead-based why does it still occur? Many times in older homes the birds will chew through the superficial layers of the safe paint to expose the lead-based paints beneath which are toxic. If you live in an older home keep a wary eye out for any evidence of chewing of paint by your birds. Also if you have any leaded or stained glass in your home make sure that you keep your birds away from the lead surfaces. Even a small chip can cause toxicity.

The diagnosis of lead poisoning is through the demonstration of lead in the digestive tract. If lead poisoning is suspected seek veterinary assistance immediately, a x-ray will confirm the diagnosis. However, the absence of metal densities in the digestive tract on an x-ray does not rule out heavy

metal toxicity. Some cases of lead poisoning may be from sources that do not show up well on an x-ray such as paint chips or leaded gas fumes. Sometimes by the time clinical signs are noted the lead may have cleared the digestive tract or there may be slow release from the bone months after exposure. Other aids in diagnosis are clinical signs which include vomiting, lethargy, anorexia, weakness, excess urination, diarrhea and nervous system signs such as ataxia, head tilt, blindness, circling, paresis, paralysis, head tremors, convulsions and death. Some birds die with no clinical signs displayed. Hemoglobinuria (blood in the urine) is a clinical sign especially in Amazons and some other birds but does not occur in all cases. It is secondary to rupture of red blood cells within the blood vessels and may be misinterpreted as bloody diarrhea.. Blood lead analysis will confirm the diagnosis but results may take several days.

Lead poisoning can be treated if identified quickly. A drug called calcium EDTA is given by injection into the muscle and it combines with the lead in the bloodstream so that it cannot enter the brain. It is given until there is no evidence of lead in the GI tract or when clinical signs resolve. Oral preparations used for chelation included DMSA and penicillamine. Mineral oil or peanut butter can be given to aid in the passage of the lead out of the GI tract. If large fragments of lead are present surgical removal may be required.

Poisonous Plants

Houseplants can be a problem as birds tend to nibble at vegetation, however actual plant intoxications in pet birds are quite rare. There are few documented cases of plant poisonings in birds and it is believed that the rapid GI transit time is thought to play a role in the low incidence of toxicity. Determining how much a bird ingests is difficult as they seem to enjoy shredding the leaves more than ingesting them. Much of the data related to poisonous plants in pet birds is extrapolated from that of mammals. I will not go into detail listing the toxic plants as several excellent resources on this subject have appeared in various articles, textbooks and online. Informational articles listing toxic as well as safe plants for aviary use are useful, once again in a variety of sources. If you have any doubts as to the toxicity of your houseplants call your local poison control center. If you suspect your bird has been poisoned seek veterinary care immediately.

Toxic Fumes

Birds have the most efficient respiratory tract in the animal world. They are able to efficiently remove oxygen from the atmosphere into the bloodstream. However, due to this efficiency and their small size, they are more sensitive to toxic elements in the air. Remember that canaries were used in mines to detect gases that would otherwise be undetectable.

Following is a listing of different elements that have been shown to be toxic for pet birds. As you will notice from the list, many have no effect on man, so care must be taken whenever they are used around birds.

-aerosol sprays (the propellant in the spray is toxic)
-polymer fumes in spray starch
-paint fumes
-burning/overheated cooking oil/butter
-fumes from self-cleaning oven
-smoke from burning food

-non-stick plastic sprays used to coat cooking utensils
-cooking gas
-carbon monoxide (car exhaust/water heater)
-cigarette smoke
-scented candles
-any material that emits fumes

Passive inhalation of cigarette, cigar and pipe smoke can cause chronic ocular, dermatologic and respiratory disease in pet birds. Birds that live in homes with smokers often show clinical signs, which include, coughing, sneezing, sinusitis and conjunctivitis due to the constant irritation of the respiratory system. Many times secondary bacterial invasion occurs into the lining of the respiratory tract, which the smoke has damaged. Clinical signs can resolve without treatment if the source of smoke is eliminated and no secondary infections are present.

If you notice a strange smell or fumes, remove your bird to an area free of fumes with good ventilation. As is evidenced from the listing above, many of these hazards are from the kitchen. A rule of thumb is not to keep the bird in the kitchen. Too many unfortunate situations can occur there. Many people keep their birds in the kitchen as it is a place of great activity. If you do keep your bird in the kitchen for this reason then exercise extreme caution whenever any cooking or cleaning is being done in the kitchen. However, it is preferred to keep the birds out of the kitchen.

"Teflon Toxicity"

This has been a problem that I have been addressing throughtout my veterinary career, having written many articles and giving numerous lectures on its danger. I had written a comprehensive article that had appeared in Bird Talk in 1986 where I had collected over 200 instances nationwide, of birds dying from “Teflon” toxicosis, documenting 540 deaths. In reality, it is probably only a fraction of the actual number of deaths that did occur and were not reported to me. However, it might not be such a bad idea to review some of this information for those of you that are unfamiliar with the problem.

Polytetrafluoroethylene (PTFE) is a synthetic polymer used on non-stick cooking surfaces. The most familiar PTFE coated cookware are marketed under the trade names Teflon, Silverstone and Supra. However, other PTFE coated products are available under other trade names.

Under normal cooking conditions PTFE coated cookware is stable and safe. When PTFE is heated above 530 degrees F it undergoes breakdown and emits caustic (acid) fumes. Most foods cook at lower temperatures though, water boils at 212 degrees F, eggs fry at 350 degrees F and deep frying occurs at 410 degrees F. But when empty PTFE coated cookware is left on a burner set on the high setting, it can reach temperatures of 750 degrees F or greater. Thus if a pan is being preheated on a burner and forgotten or if water boils out of a pot then breakdown of the PTFE can occur. Therefore PTFE coated cookware has to be "abused" to emit toxic fumes.

The signs of PTFE toxicity are non-specific. Birds are usually found dead in the cage or gasping for air and then dying. The lung tissue is severely damaged by the caustic effects of the toxic fumes. On post mortem examination changes are seen in the lungs only, with congestion and hemorrhage in the airways.

The diagnosis is through the signs of respiratory difficulties and death coupled with the association of a non-stick surface that was possibly overheated. Other sources of toxic fumes must be ruled out. The changes in the lungs are non-specific for PTFE toxicity so there is no **SPECIFIC** way it can be positively identified.

PTFE coated drip pans (burner pans) were developed in the late 1980's and are extremely dangerous for use around birds. The pans are exposed to the direct heat of the burners so that under a burner set on high after 5 minutes the pan can reach over 650 degrees F and after 10 minutes over 1000 degrees F. PTFE coated cookware is dangerous when abused, PTFE coated drip pans are dangerous under normal usage and should be avoided if birds are present in the household.

A real threat exists as drip pans coated with PTFE are still being marketed and distributed through mail order houses. From what I gathered speaking with a representative of one of the companiesyears ago, he stated that "hundreds of thousands" have been sold. The fact that these can cause death in pet birds under normal usage (with unknown effects on humans) and the fact that there are no warning labels on these products or no composition label (so the consumer knows if PTFE is present or not) is totally unacceptable. Deaths are still occurring and we must as concerned consumers address this problem. Warning labels and composition of the non-stick surface are two things that I would definitely like to see.

Conclusion

As you can see danger in the household lurks in many seemingly innocent places. The purpose of this article was to alert you to some of these dangers which can be averted if proper husbandry practices and caution are exercised. I have always felt that even one death or injury from any of these circumstances is too many. It is also our duty as bird owners to share this information with other bird owners so that we can prevent any further accidental death and injury of these truly wonderful pets.

For information on products and chemicals as well as assistance with poisonings, call the ASPCA National Animal Poison Control Center, a great resource for any animal poison-related emergency, 24 hours a day, 365 days a year. Call **(888) 426-4435.** A consultation fee may be applied to your credit card.

Some of the information was excerpted from *Essentials of Avian Medicine: A Practitioner's Guide 2nd Edition*. Peter S. Sakas. AAHA Press. (2002)