

TOXINS IN PET BIRDS

Toxin = Poison Poison = illness which often leads to death

There is no comprehensive list of items that can be toxic to birds. Remember that your bird with a smaller body mass, higher metabolic rate, and faster respiratory rate often will be more sensitive to a poisonous substance than a larger creature.

FATTY FOODS

We've heard about the detrimental effect that over-consumption of excess fat can have on human health. The same is true for our feathered friends. Chronic over-ingestion of fat that is not utilized by the body is either stored in the liver eventually overloading it and preventing the liver from performing its many necessary functions and/or is continually recirculated in the blood stream. "Hepatic lipidosis" (fatty liver disease) can lead to severe weakness, paralysis, seizures or (again) sudden death. Quaker parrots and Amazons, as well as other species, are common victims of this problem. The relationship between high fat intake and atherosclerosis (blocking of vessels) exists for birds as well as humans. African Gray Parrots are often afflicted with this malady and many times the only indication of illness is sudden death. High circulating fats can lead to lipomas (fatty tumors) that carry high blood volumes which tax the circulatory system and can bleed profusely if traumatized. Budgies, cockatiels, amazons, macaws, and some species of cockatoos are commonly affected. Seed-only diets are considered one cause of fat associated health problems. Annual blood work that includes triglycerides often can act as a "marker" to help diagnose these problems early. Early diagnosis allows for early life style changes or medications that can help avoid the long term effects of these problems.

ALCOHOL

The alcohol content of hard liquor, wine, and beer is destructive to the liver. With a bird's high metabolic rate and the ability to ingest a much higher volume compared to its body weight, liver failure occurs in a VERY short period of time. Yes, many birds LIKE the taste of beer but the consequences are not good.

TOBACCO

Smoking! Bad for you ---- worse for your bird!

Cigarettes, cigars, chewing tobacco, snuff and even marijuana are injurious to your bird whether he or she is allowed to eat the products or is forced to breathe the air that is contaminated with the smoke from these items. Chronic sinus and lung disease as well as dermatitis, which can lead to feather picking, have been confirmed in birds that live with smokers. Tobacco from one's hands can be transferred to a bird's feathers during handling and is then ingested during the bird's normal preening activity. Birds have highly efficient respiratory systems and rapid respiration rates. In one breath a bird can extract **70% more** air particulates than a human. No wonder a bird is more susceptible to airborne toxins than are humans!

AVOCADO

Reports of avocado associated toxicity have been reported in cattle, goats, horses, rabbits, mice, and birds. In 1989, a research group demonstrated that 6 of 8 budgies died within 47 hours of ingesting an extremely small amount of avocado. The exact toxic compound has not yet been identified but the toxicity is unpredictable. Clinical signs are those of kidney failure. **There is no antidote.** Treatment is supportive. **The prognosis is grave.** At the very least --- avocados are high in fat and fatty foods have been discussed earlier in this section. A good rule of thumb is **“When in doubt, DON’T.”** CARE-PETS ANIMAL HOSPITAL recommends **NOT** feeding avocado to birds.

CAFFEINE AND DERIVATIVES

Chocolate, soft drinks, cocoa, coffee, and tea that contain caffeine and/or its structurally similar compounds affect the muscles and central nervous system. Signs include vomiting, restlessness, and hyperactivity with more severe signs being those of staggering, muscle tremors, increased heart rate, seizures and possibly death from heart or respiratory failure. This group of toxins is dose related. Just because your bird got away with swallowing a bite or sip of one of these items without problems does NOT mean that serious problems may not occur the next time. Again, treatment is only supportive (no antidote) and the outcome is always in doubt.

LEAD

Lead toxicity is well documented in all species --- including humans. Sources include lead-based paint, lead shot, solder, linoleum, curtain weights, stained glass, tiffany lamps, glitter from trendy clothes, Christmas ornaments, and foil from the top of wine bottles. Only a very small amount is necessary for toxicity. All species are susceptible but Amazons and Macaws seem to be especially sensitive. Signs usually appear several days after ingestion but proceed rapidly. Depending on the amount consumed, death can occur within 48 hours. Signs can be vague. However, there is usually a sudden onset of weakness, vomiting, loss of appetite, or neurological signs (lack of coordination or seizures). If a bird suddenly becomes listless, won’t eat, and regurgitates, seek immediate veterinary assistance and request a radiology (x-ray) evaluation. Time is critical once signs occur. Antidotes are available as well as supportive and/or surgical therapy. A new, critical problem that has arisen in the last few years is the ingestion of lead based Swarovski crystals. These are used for decorative purposes including cell phones. These crystals do not release lead into the blood stream so blood lead tests are negative. Only radiographs can find these very characteristically shaped crystals. Birds can die very quickly from internal hemorrhage. Surgical intervention, once the crystals are identified, is the bird’s only chance for survival.

ZINC

Zinc toxicosis is thought to be more commonly seen in bird medicine than previously. It is often under-diagnosed due to the variable clinical presentations. Signs of zinc toxicosis vary depending on the quantity ingested, concentration of zinc in the ingested material, and the species of bird. Signs have been reported as regurgitation, lameness, mental aberrations, marked depression and sudden death. History of ingestion varies from a few days to chronic low-grade exposure over years. Often the owner is not aware that his bird is nibbling on an item that may contain zinc. Cockatoos are especially deft at chipping off metal objects and ingesting them. A little prevention could save your bird/s life. CARE-PETS ANIMAL HOSPITAL recommends replacing all galvanized cage hardware with stainless steel. Common sources of zinc are:

- Paint primers of powder-coated cages especially cages produced before 1995.
- Bronze coating on metals
- Hardware used in decorating (nails, clasps, chains)
- Galvanized products (the brighter the metal the higher the zinc level)
- Anodized aluminum --- or ANY anodized surface
- Costume jewelry and sequins
- ALL portions of metal zippers (zipper keys are often ingested whole)
- Many hardware products --- washers, bolts, screws, etc.
- U.S. pennies produced after 1982 and Canadian pennies after 1996
- Many topical dermatologic creams (sun block, Desitin, calamine lotion)
- Some artificially colored food pellets (CARE-PETS ANIMAL HOSPITAL recommends feeding non-colored or natural colored products.)
- Many rubber products

OTHER HEAVY METALS

Various other metals are also toxic to birds.

- TIN: Found in aluminum foil, gum wrappers, and cans. There is no antidote. Death can occur in less than 72 hours without surgical removal.
- COPPER: Found in some toys, old pennies (dated earlier than 1982), furniture and home electric cords. Signs are similar to those of zinc toxicosis.
- IRON: Found in rusted steel products. Signs often are those of nervous system impairment or blindness. Blood testing for heavy metal is negative.

Signs of illness are variable but most often are those of neurological or gastrointestinal origin. Many times feather picking is a presenting complaint as well. Radiographs are very important in the diagnosis of any heavy metal toxicosis. Even if a metal can be found on a blood test, it is often of critical importance not to have to wait for those results to be available. That's why radiographs (x-rays) are so important. However, radiographs will not be able to differentiate one heavy metal from another except in the case of Swarovski crystals. That's where history of exposure is important. One must be very careful what a bird has access to in your house. Birds should never be left unattended to roam freely.

FUMES/VAPORS

We've mentioned the extremely efficient respiratory system that birds have which makes them highly sensitive to airborne products. Many individuals have heard about miners taking a canary (known as the "sentinel bird") into coal mines. The canary would expire in the presence of toxic gases before the miners would notice any odor thus warning the miners of impending danger in time to escape the mine. Today's birds are in danger from many household cleaners as well as kitchen and bathroom fumes.

KITCHEN: Non-stick cookware, when heated above 530°F, emits an invisible, odorless vapor. The irritating vapors accumulate in the lungs causing fluid production and subsequent *anoxia* (lack of oxygen). Birds seem to be highly sensitive to this toxin compared to other animals or humans. Often the only sign of problems is sudden death which can occur in as little as 1-5 minutes after exposure. To be on the safe side, do not keep your bird in the kitchen and be acutely aware of which product contains a non-stick surface.

BATHROOM: Some curling irons contain non-stick coatings and are capable of emitting toxic vapors. Fumes from hair spray, colognes, and perfumes can be deadly. Rubbing alcohol and products containing it should never be in a bird's area where it may be ingested. (Birds are curious creatures and they "learn" about their environment with their beaks.)

HOUSEHOLD CHEMICALS: Cleaners containing phenol derivatives (Lysol, Pine-Sol) emit extremely toxic fumes. Fumes from bleach (chlorine gas) and ammonia are toxic. Fumes from "curing/breathing" wood (new construction) and new carpets are a danger. Paint fumes as well as fragrances in candles, air fresheners, plug-in air fresheners, and even hand lotion have caused serious health problems and even death.

The rule of thumb "When in doubt, DON'T" applies here. Always err on the side of caution and protect your bird from these fumes. Some household projects may involve removing the bird from the house and ventilating the house thoroughly before bringing him or her back in. Yes, extra time, trouble, and work --- but it may make the difference between a live bird and a dead one.

PLANTS

Many people use plants for enrichment. Some SAFE plants, if dried, include eucalyptus, pine, oak, Manzanita, and fir. Plants TOXIC to birds include Japanese Yew, oleander, poinsettia, dumb cane, redwood, Bird of Paradise, mistletoe, nightshade, ground-cherry, and pits/seeds of apples, apricots, peaches, and cherries.

This is, by no means, an all-inclusive list of "good" and "bad" plants. Remember the Rule of Thumb "**When in doubt, DON'T.**" Keep house plants away from your bird and you will not need to worry about toxicity.

SIMPLE SUGARS

Foods like sweet rolls, Danish, candy, glazed products, and even oversized portions of sweet fruits or fruit cocktail have caused acute toxicity or death in some patients. The cause stems from the simple sugars causing a fermenting process in the lower bowel. This changes the bowel environment from an aerobic (with oxygen) to an anaerobic (without oxygen) one. A bacterium already existing in the bowels proliferates in the anaerobic conditions and creates a toxin that can cause acute illness, shock and even death if proper antibiotic and fluid therapy is not instituted very quickly. Unfortunately, birds seem to have an affinity for these sweet foods so BE EXTREMELY CAUTIOUS.

ACIDIC FOODS

There have been reports of acute illness in birds following ingestion of acidic foods such as tomatoes, citrus fruit, raspberries, tart apples, and pineapple. Again small birds seem to be more susceptible as this appears to be a dose related problem. Acidic foods lower the pH in the crop and slow or stop the crop's normal function as a passageway to the lower gastrointestinal (GI) tract. This leads to the absorption of "normal" toxic food by-products, causing dehydration, depression, regurgitation, shock, and sometimes death.

CHEESE

Some birds LOVE it. However, the facts are: 1) Birds are lactose intolerant. This is agreed upon by the entire veterinary community. 2) Most cheese is made with various gums that give it shape and texture and is non-digestible. 3) Signs of problems can go unnoticed because of the relatively small amount of cheese that is consumed. However, not knowing a problem exists does not necessarily mean that it isn't there. There is much debate within AND without of the veterinary community about the damaging influence of cheese in the avian diet. CARE-PETS ANIMAL HOSPITAL recommends caution in this area and to remember the Rule of Thumb "**When in doubt, DON'T.**"

IN CONCLUSION

Our pet birds are still very much wild creatures. As such they are past masters of hiding signs of illness. This is because, in the wild, if you are a prey animal and show signs of weakness/illness, you're the first to be culled from the flock. It's important to monitor behavior, appetite, and droppings very closely and act upon any suspicious changes quickly. If you KNOW your bird has ingested any of the heavy metal products listed above, don't wait to get help. Exercise good judgment in offering food treats to your bird. Birds are curious creatures and cannot discern what may be harmful to them. Our modern homes offer protection from many of the dangers birds face in the wild. However, there are a whole host of other dangers to which they can be exposed. It's up to us to be the discerning individuals who help them stay safe and healthy so they can continue to give us many years of companionship and love.