

CARING FOR SPECIAL NEEDS BIRDS: HOW TO GIVE BIRDS WITH VISUAL DEFICITS A GREAT QUALITY OF LIFE

INTRODUCTION

Vision is arguably the most important sense for most species of birds; it is used for navigating during flight, finding food, interacting with other birds, and avoiding predators. Unfortunately, visual deficits and complete blindness occur relatively frequently in companion birds. Some of these birds are born blind while others develop blindness later in life. The good news is that, in contrast to their wild counterparts, our companion birds can learn to adapt to visual deficits quite well with time. However, it is essential that one make the necessary adjustments to their care to allow them to live full, comfortable lives.

Causes of Blindness

Visual deficits and blindness in birds have many potential causes, including congenital or developmental issues, cataract formation, traumatic eye injury, toxin or chemical exposure, infection (bacterial, viral, or fungal), nutritional deficiencies, and cancer. In conditions where vision is lost gradually, like cataract formation, birds are able to adapt more easily to the change. Diseases causing acute vision loss, like trauma or some infections, will be more challenging for the bird, and patience will be required during the adjustment process.

If you have concerns about your bird's vision, consult with your veterinarian. Your avian veterinarian, sometimes with the help of a board-certified veterinary ophthalmologist, can determine if vision impairment is present, run diagnostics to help identify the cause, and provide medical or surgical treatment options if available. Recheck evaluations may be recommended to monitor for progression of disease and response to therapy. Special testing of the eyes may be needed regularly, such as fluorescein stains (to evaluate for corneal ulceration), intraocular pressure testing (to monitor for glaucoma or intraocular inflammation), evaluation of the deeper parts of the eye via ophthalmoscopy, and sometimes even advanced imaging such as ultrasound or a CT scan.

For the most part, health monitoring for birds with visual deficits is like monitoring the health of any other bird. AAV's "Signs of Illness" handout addresses several ways to monitor for potential problems. Normally, weekly weight checks are recommended for companion birds; however, if your bird has experienced sudden vision loss, daily weight checks can tell you whether it is finding food effectively.

Follow your avian veterinarian's instructions on any at home care to treat your bird's eyes, and monitor for changes or worsening of clinical signs, such as squinting, swelling around the eye, ocular discharge, redness, rubbing or scratching at the eye, color change of the cornea, or color change deeper in the eye. Seek care right away if you are noticing problems.



Conure with congenital glaucoma.



Using tonometry to evaluate intraocular pressure in a cockatiel.



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This blind macaw is foraging for food on the floor.



This blind conure enjoys spending time on the floor of its cage, playing with toys and foraging.

Environment

Setting up a comfortable, easy to navigate, and enriching environment for a bird with visual deficits is essential. Here are some of the important considerations:

Lighting

Good lighting should be provided for birds that have some visual capacity as this will allow them to maximize their remaining vision. Even completely blind birds should be kept on a normal day/night cycle (10-12 hours of dark, quiet time is generally recommended for companion parrots) because of the pineal gland, an interesting endocrine organ that regulates the wake/sleep cycle. The avian pineal gland is located just under the skull. Since the avian skull is quite thin, light can penetrate it to reach the gland.

Minimize Changes

Blind birds can memorize their environments quite well. Different textures on different perches can help them to quickly know where they are in their cages. For example, one perch could be rope, one wood (such as manzanita or java since these have varying widths), and one could be wood wrapped in self-adherent stretch bandage (i.e., vet wrap). Auditory cues can also be used to help birds learn where things are, such as tapping on a ceramic water bowl or ringing a bell on a toy. Since the bird is navigating the cage based on a memorized map, it is important to avoid frequent changes in location of the cage furniture; however, teaching the bird to accept some degree of change is also important for enrichment purposes and to prevent fear of change.

Increased Horizontal Space

It is common for blind birds to prefer to be on the floor of the cage or on perches that are lower down in the cage. Sometimes, a new cage is needed to provide the optimal environment, especially in birds that are born blind or become blind suddenly. A cage with a flat floor (rather than a grate) and more horizontal space than vertical space is often ideal. Small mammal cages can work well in this situation. If the bird is spending a lot of time on the floor, a non-slip but easy to clean surface is important. As long as your bird doesn't try to eat them, puppy training pads or bird-safe fabrics can be used as cage liners. Some birds will do well in a normal bird cage with a grate, especially those with gradual onset blindness. Each bird must be assessed individually to determine the best cage option.

Food & Water Access

Easy access to food and water is obviously essential to survival, and a little trial and error might be needed to see what works best for your bird. Some birds may prefer raised dishes that don't require leaning over, while others might prefer wide, shallow dishes, such as reptile water dishes. The bird may prefer the food dish be placed adjacent to their favorite perch or on the cage floor. See what works for your bird and then stick with it so they are never wondering where their food and water have gone. When you place bowls back in the cage after refilling the water or food, tap on the bowl so the bird can hear that fresh food and water are available or consistently tell your bird what you are doing, such as saying, "I am putting fresh water in your cage."

Once a blind bird has had a chance to master its environment, it is often very difficult to tell that the bird is blind!



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Safety Considerations

In addition to all the usual safety considerations for companion birds, there are a few special ones to consider for birds with visual impairment:

- **Padding the bottom of the cage:** If your bird is prone to falling (especially in the early stages of vision loss), the cage bottom should be padded to reduce the risk of injury. For example, a towel or fluffy, soft blanket can be placed on the cage floor (again, make sure the bird is not ingesting these items). Paper towels or newspaper can be used on top of the padding to allow for easier cleaning.
- **Remove sharp edges:** Sighted birds generally do just fine with toys and other objects in the cage having sharp or rough edges, but blind birds are at risk of walking into these items. Therefore, be sure to evaluate anything going into the cage from this perspective. For example, avoid toys that have large triangular pieces of wood that can cut a blind bird's face if accidentally bumped.
- **Flight:** Parrots are meant to fly; this is important for their physical and mental health. However, birds with visual deficits are at higher risk of flying into things, causing injury. Evaluate how your bird does in its environment, and discuss any concerns with your avian veterinarian. Together, you can decide whether a wing trim is needed for your bird's safety.



Foraging/play tables can be a fun way to provide enrichment for birds. For blind birds, the table can be placed on the floor or side rails can be built to prevent falls.



This aging parrot suffers from cataracts. - note the opaque area on the lens.

Enrichment

Blind birds need enrichment just as much as their visual counterparts, with only a few adjustments here and there. The following are some suggestions:

Foraging

Foraging is a wonderful enrichment opportunity for all parrots. To make this possible for blind parrots, consider building a foraging table rather than a foraging tree, with side rails if needed to reduce the risk of falls. Food and interesting foot toys can be scattered around on the table. Food can be hidden in small cardboard boxes or tubes, single use paper cups (i.e., unwaxed bathroom cups), pieces of paper, or small plastic take-out sauce cups. Sound can be used to aid in foraging efforts by shaking containers with food in them or rattling nuts like pistachios in the shell before placing these objects down to be found. Of course, these techniques can also be used in the regular cage. Another very simple foraging method is to mix pellets with shredded paper in the food bowl so the bird must sort through the paper to find the pellets.

Fresh Foods

Don't overlook the fun to be had with fresh greens and veggies! Leafy greens (such as romaine, kale, and chard) can be placed around the cage, hung in bundles from the top of the cage, or woven between the cage bars for chewing and exploration. For smaller birds, herbs, such as cilantro, parsley, and dill, might be preferred. A bell pepper cut in half, a mini cucumber, a chunk of pomegranate, or a small, washed, sugar pumpkin can be offered for both destruction and consumption.

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Skewers

Metal skewers used for bird toys are an excellent way to provide daily variety without too much change. New objects can be placed on the skewer each day, such as pieces of fruit or veggies, blocks of wood, and/or other bird-safe objects, as one might find in a build-your-own-bird-toys kit. Cardboard containers used to hold 6-packs of soda can also be used to build interesting, easy-to-find fun. In this case, the bird-safe objects or food are divided up between each “compartment” of the 6-pack box.

Slow Introduction

When introducing enrichment opportunities, go slow so that the bird does not get overwhelmed. Try introducing only one new toy or moving only one thing at a time so that the bird has a chance to adjust to the changes. Alert the bird to the presence of the new toy by tapping it or using part of the toy to make a sound, such as ringing a bell or crinkling paper.

Verbal Cues

When placing a new item in front of the bird, try using a key word each time to let the bird know something new is there. Any word can be used, but something like “reach-out” or “touch” is easy to remember.

Other Enrichment

Just because birds are blind, does not mean they can't enjoy the enrichments recommended for other birds. For example, blind birds appreciate time with their human flock and supervised time out in the sun and fresh air (in an aviary or otherwise appropriately contained). “Trick training” (aka: positive-reinforcement operant conditioning) can be modified to work for blind birds, using touch and sound rather than visual cues for desired behaviors. Having an avian companion of the same species is often the best thing we can do to improve the quality of life of our captive parrots, assuming the birds get along well. Depending on the individuals and the species, they may not be able to be housed in the same cage but can enjoy socializing in nearby enclosures and having supervised opportunities to interact.

Conclusion

Although blindness presents unique challenges, most birds adjust very well when provided with a stable environment, thoughtful enrichment, and attentive medical care. Caregivers play a crucial role in creating a safe, predictable space that supports the bird's ability to explore, forage, and engage with its surroundings. By understanding their needs and working in partnership with your avian veterinarian, you can support your bird in living a healthy, rewarding, and secure life despite visual challenges.



Metal skewers can be used to make fun toys that change daily.



This macaw became blind from a trauma and secondary infection of his eyes. A sudden loss of vision can be a more difficult adjustment for the bird.

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Avian medicine is a distinct and very specialized field that requires extensive training, advanced skills, and facilities specifically designed and equipped to treat and hospitalize birds. The Association of Avian Veterinarians was established to provide veterinarians with this special education, and to keep them up to date with the latest information on bird health. The AAV holds an annual conference on avian medicine and publishes the peer-reviewed *Journal of Avian Medicine and Surgery*. AAV also makes annual contributions toward avian conservation and sponsors studies advancing the understanding of avian medicine.

For More Information

For more information on birds, ask your veterinarian for copies of the following AAV Client Education Brochures:

- Avian Chlamydiosis and Psittacosis*
- Veterinary Care for Your Pet Bird*
- Basic Care for Companion Birds*
- Behavior: Normal and Abnormal*
- Caring for Backyard Chickens
- Digital Scales
- Feather Loss
- Foraging for Parrots*
- Managing Chronic Egg-laying in Your Pet Bird
- Protecting Your Pet Birds from Household Dangers*
- Signs of Illness in Companion Birds*
- Ultraviolet Lighting for Companion Birds
- When Should I Take My Bird to a Veterinarian?*
- Zoonotic Diseases in Backyard Poultry*



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**Available in multiple languages. All others are available in English only at this time.*

Online Resources

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Our website, www.aav.org, offers a Find-a-Vet tool to help pet bird owners locate avian veterinarians around the world. We also offer a variety of resources such as basic bird care instructions and more. Visit the website today!

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Companion birds can learn to adapt to visual deficits quite well with time.