

INHALATION ANESTHESIA

I use inhalation anesthesia for routine examination and grooming procedures on pet birds. This treatment technique has been developed over 35 years of avian practice and is time-tested, safe, cost-effective, and overwhelmingly accepted by almost all of my clients.

The main reason to use isoflurane inhalation anesthesia is to alleviate stress to the bird, the veterinarian, and his assistant. Macaws and large cockatoos, in particular, may scream continuously. Restraining them with a towel, trying to avoid being bitten, and attempting to do a thorough physical exam and grooming can be challenging. Sedation allows the bird to be calm and still. An assistant is not necessarily required. Often the owner can sit with the bird to observe what is being done.



Hyacinth macaw sedated with Isoflurane gas for routine examination and grooming. Owner observes and assists as needed

Anesthesia is performed with the bird's head and body placed under a plastic hood that has a built in exhaust fan in the back. Waste anesthetic gas is forced through this fan into a length of 4" vinyl dryer hose and evacuated to the outside of the room and facility, either via a window, door, or other appropriate exit. This prevents gas exposure to any people in the room where I am working.



Oxygen moves through appropriate tubing from the cylinder to the precision vaporizer where Isoflurane is added. The anesthetic is then delivered to the bird via the facemask. Waste gas is evacuated through the exhaust fan at the rear of the hood, into the dryer hose, and finally to the outside via an opened window.

FOR MOST OF THE PROCEDURES I PERFORM, ANESTHESIA IS EITHER REQUIRED OR RECOMMENDED

- 1. Clients will be asked to read and sign a consent form regarding the use of isoflurane for each treatment to be performed and the risks involved. They will be given the opportunity to decline anesthesia for certain procedures if they wish.**
- 2. My clinics are designated for “clinically healthy birds” only. All of the treatments I perform are elective procedures. Owners with birds that they perceive to be sick are encouraged to take them to a local avian veterinarian. Nonetheless, I always rely on any history the owner may give me before proceeding.**

- 3. I observe the bird in its cage or carrier or while being held by the owner. I'm looking at the bird's general posture, physical condition, and respirations.**
- 4. I observe the bird after being caught and physically restrained with a towel. I am looking at how the bird is breathing. Are the respirations rapid, labored, open-mouthed or raspy? Are there any signs of upper respiratory disease? Is there poor color to the facial skin or mucus membranes of the mouth? Does the bird's voice sound normal?**
- 5. I feel the crop, breast musculature, and abdominal region for any abnormalities.**
- 6. I always have a stethoscope available to monitor the bird's heart before and during treatments.**
- 7. If I perceive everything is normal, then I will mask the bird down with isoflurane and start a more thorough examination and whatever treatments the owner requests.**
- 8. If I see anything out of the ordinary I will not proceed with the use of inhalation anesthesia. I will do the requested treatments with manual restraint or discontinue them altogether. Recommendations and or referral to a local avian veterinarian may be indicated.**
- 9. All birds are induced at a concentration of 5% isoflurane and an oxygen flow rate of between 1.5-2.5 liters/minute, depending on the size of the bird. Once the bird is relaxed, the concentration of isoflurane is reduced to between 2-3% for the duration. The level of anesthesia is monitored by skin color, response to pain, depth and rate of respirations, and auscultation with a stethoscope. Anesthesia time for pet birds is usually less than 8 minutes, even in the largest species. Anesthesia time for breeder birds that are only being surgically sexed is usually less than 3 minutes.**

10. Afterwards an assistant will usually hold the bird in a towel until it starts to arouse. At this point the bird is returned to its cage or carrier where it is monitored over the next 10-15 minutes until fully recovered.



Anesthetized birds recover in their carriers for 10-15 minutes before being returned to their regular cages or leaving the clinic.

Picture 2: Table setup showing exhaust hood that birds are kept under to prevent exposure to waste gas. Exhaust fan directs excess gas from hood, through vinyl hose to the outside.

Picture 3: Isoflurane is mixed with oxygen and delivered to the bird via a face mask. Once sedated, treatment procedures can be performed more thoroughly, quickly, and stress-free.

- 11. Birds are recovered in their carrier, cage, or are held in a towel by an assistant or owner once they have started to rouse. They are then monitored visually for another 10-15 minutes to make sure they are fully awake before the owner is allowed to leave.**

12. I have found in some situations that recovery is actually much smoother for the bird if it is placed on the floor and allowed to gently wake up and “walk about” to regain its balance and become fully conscious. Cockatoos in particular can wake up and have a short frenzy during which time they scream, flap their wings, and thrash about. Had they been confined to a carrier, they may injure themselves or start bleeding from broken blood feathers.