

# Avian/Exotic Anesthesia

- Anesthesia is used to prevent a patient from experiencing stress and/or pain during routine, elective, or emergency care.
- Anesthesia can be administered as injection or gas to reduce pain, anxiety, or awareness in animals undergoing medical and surgical procedures.
- Birds, reptiles, and small mammals have unique metabolic, cardiac, and respiratory systems that differ from other species.

### What Is Avian/Exotic Anesthesia?

Anesthesia is the use of medication to induce the loss of consciousness, a decreased sense of anxiety, or the loss of sensation of a specific part of the body. *General anesthetics* are medications that are used to prevent the awareness of painful or stressful procedures. *Sedatives* are used to calm a patient during a procedure. *Local anesthetics* are used to achieve decreased sensation in an area of the body where a procedure may induce pain. Birds, reptiles, and small mammals differ from other pets in that their metabolic rates vary from one species to the next, and specific precautions need to be taken when administering anesthesia to these animals. Your veterinarian knows that some of these animals eliminate medications at different rates depending upon the size of the animal or its body temperature; thus, doses vary significantly among species. In addition, due to their small size or unique methods of maintaining normal body temperature (thermoregulation), some avian and exotic animals may have difficulty maintaining their body heat under anesthesia; therefore, steps must be taken to keep them at optimal body temperature.

### How It Works

The anesthetics used in birds, reptiles, and small mammals are the same medications used in larger mammals and work primarily on the nervous system. However, many of the medications have unwanted effects on the cardiovascular and respiratory systems.

Commonly, an inhaled anesthetic is used alone when the procedure is thought not to induce post-procedure pain. However, pain management is extremely important, and if the procedure is anticipated to be painful, your veterinarian will likely include a pain medication and a sedative in the anesthetic plan. The benefit of multidrug protocols is that if multiple drugs with different modes of action are used overdoses can be avoided.

### What Is It Used For?

Anesthesia may be used simply for the collection of data on a patient or to allow your veterinarian to perform procedures in life-threatening emergencies.

Birds, reptiles, and small mammals have unique metabolic, cardiac, and respiratory systems that differ from other species.

For instance, a sedative may be used to relax a pet enough to allow for a complete physical exam, blood collection, or radiographs. Use of local anesthesia may make it possible for your veterinarian to perform a short procedure, such as obtaining a tissue sample for biopsy. General anesthesia may be needed for emergencies such as the repair of a broken limb or the relief of egg binding in birds or reptiles.

### Types of Anesthesia

- **Inhalant anesthetics:** isoflurane, sevoflurane
- **Injectable anesthetics:** ketamine, propofol
- **Sedatives:** midazolam, acepromazine
- **Pain medications:**
  - opioids—butorphanol, buprenorphine, hydromorphone
  - NSAIDs (nonsteroidal anti-inflammatory drugs), meloxicam
- **Local anesthetics:** lidocaine, bupivacaine

### Benefits of Anesthesia

In some cases veterinary care itself puts stress upon a pet's physical and emotional health. Without anesthesia, the health of our pet birds, reptiles, and small mammals would be in jeopardy. Stress is known to impair the body's ability to heal and maintain wellness. These unique animals pose a significant

challenge to veterinarians. Doctors must be acutely aware of the particular physiologic characteristics of the metabolic, cardiac, and respiratory systems of each species. The reduction of stress and pain using an anesthetic plan that addresses the specific needs of each patient will provide for a speedy recovery and a better chance at continued well-being.