# How to Monitor Anesthetic Recovery Postoperatively Once Home

#### **BACKGROUND**

Pets may be placed under anesthesia for a number of reasons including elective surgery (e.g., neutering, dental work), repair of traumatic injury (e.g., lacerations, fractures), exploratory surgery, and diagnostic procedures (e.g., scans, endoscopy), to name a few. It is important to monitor until the pet has fully recovered. Your veterinarian will not send your pet home until it is past the crucial phase, but your pet may still be very groggy or disoriented. You should keep a watchful eye on him/her until your pet is acting as it did before anesthesia. Should you have any concerns, you should call your veterinarian while remaining within sight of your pet to troubleshoot any problems and report to the veterinarian what you are seeing.

### **GETTING STARTED**

Equipment/materials needed:

- · Rectal thermometer
- Vaseline
- Watch/clock with a second hand (or digital, with seconds display)
- ± Ice pack and towel

### TROUBLESHOOTING BEFOREHAND

Pets should be placed in an area that is safe and secure, specifically inhibiting their ability to jump onto objects such as couches, chairs, or beds or to fall on stairs. The area should be quiet and comfortable. Even for outdoor pets, it is best to allow them to finish recovery inside the house. For crate trained dogs, time in the crate may be ideal, especially if they had a surgical procedure.

Certain unusual behaviors are actually expected and normal during anesthetic recovery. This includes sudden swings of the head from side to side, for example, for animals that still are slightly dazed from the anesthetic, and vocalizing or howling. However, sharp, exaggerated gasping movements, as if trying to gasp for air but without howling, can be of grave concern and warrant an immediate call to your veterinarian.

## **PROCEDURE**

The following instructions apply to dogs or cats that are brought home while still heavily sedated from the anesthetic (very "groggy") and clearly not fully awake. As the anesthetic effect wears off, gradual stages of greater wakefulness and ability to rise and walk are expected, with the occasional pause to sleep.

Count and record the respiratory rate for 1 minute every hour:

- Watch the pet for exactly 1 minute, counting each respiratory cycle (1 inhalation, 1 exhalation). Usually you can just watch the chest rise and fall, but for pets with long coats you might need to place your hand on the chest gently.
- If the pet inhaled and exhaled 30 times in 1 minute, its respiratory rate is 30 breaths per minute.

The normal respiratory rate in dogs and cats during anesthesia recovery is less than 40 per minute (exception for dogs: if panting, the respiratory rate is not valid because it will be falsely very high). An increased respiratory rate may indicate that an animal is uncomfortable or having breathing-related difficulties. You should note the respiratory effort (should be comfortable) and color of the gums and tongue (should be pink in areas that are not pigmented/black). If

the respiratory rate is above 40 breaths/minute, or your pet seems to be having difficulty breathing, or the gums have a bluish tinge, call your veterinarian immediately.

Take temperature every hour:

- In calm (or sleeping) pets, this can be done with just one person, but with young, excited animals, it may be necessary to have one person distracting and/or holding the pet while another person inserts the thermometer.
- Digital rectal thermometers are timed and will sound when an accurate temperature has been obtained. Avoid mercury thermometers because the glass can break and release the toxic mercury found inside.
- Place a small amount of Vaseline on the end of the thermometer and insert it into the rectum; leave in for approximately 1 minute.
- Remove thermometer, wipe off Vaseline, and determine result.
  Clean the thermometer probe with a disinfecting solution and then dry.

Normal temperatures of dogs and cats are generally 101°F to 102°F (38.3°C to 38.9°C). Anesthesia invariably cools the body, and a goal should be to bring the body temperature above 99°F (37.2°C) using some of the methods described below (see Frequently Asked Questions).

Offer food and water slowly:

- Introduce a small amount of water only after your pet is sufficiently awake to stand. Assuming your pet does not vomit, offer a small amount again 30 minutes later.
- If your pet does not vomit after drinking water, offer a small amount of food. Again, if your pet does not vomit, offer another small amount of food 30 minutes later.
- Not all pets want to eat within 12 hours of being under anesthesia.
  This is acceptable, as long as your pet eats and drinks normally the following day.
- For the first 24 hours, if your pet's appetite returns quickly, do not allow your pet to eat or drink as much as he or she wants, as doing so could cause vomiting.
- If your pet vomits, withhold all food and water until the following morning. If vomiting continues, call your veterinary hospital.
   Restrict your pet's physical activity:
- Do not allow your pet to jump on or off furniture. Your pet may be off balance, causing him/her to fall and become injured.
- Ask your veterinarian when regular exercise may continue. This will largely depend on the procedure performed. *Incision:*
- If your pet has a surgical incision (with or without visible stitches), look at it daily. Do not allow the pet to lick the incision. Pets may need to wear an Elizabethan collar (E-collar) to prevent licking. Pets can damage the incision with only a few licks.
- If your pet has an incision, your veterinarian may ask you to apply an ice pack to the incision for 5 minutes several times a day for the first few days postoperatively. Ice packs can be homemade—put a bag of frozen peas or green beans inside a towel and place on the incision.
- If the incision was closed with sutures (stitches), ask your veterinarian if/when you should return to the hospital to have them removed. Some incisions are closed with sutures that will dissolve; others are closed with sutures that must be removed 10 to 14 days postoperatively. All skin staples must be removed.

 If the incision ever appears red, raised, irritated, or develops a puslike fluid discharge, call your veterinarian for a prompt recheck.

Medication:

 Antibiotics or pain-relieving medication may have been prescribed for your pet. Ask your veterinarian when to start this medication.

#### **AFTERWARDS**

Do not hesitate to call your veterinarian with any concerns. It is better to address concerns immediately rather than wait and possibly allow the condition to worsen.

# FREQUENTLY ASKED QUESTIONS

My pet wants to run, jump, and play, but he just had surgery today. What do I do?

Do not allow your pet to run around; he or she may damage the surgical incision or even injure himself/herself. If there is an incision, delayed healing, onset of infection, and swelling are all possible with premature physical activity. Anesthesia affects different patients differently; some pets will still be heavily sedated/groggy for many hours when arriving home, and their activity level must be monitored and restricted.

Why can't my pet lick the incision area? He is just cleaning it up.

Pets can lick and chew enough to remove sutures within seconds. This would necessitate a second surgery for your pet that could have been avoided. Pets also harbor a large number of bacteria in their mouths. If they lick the incision, they may introduce an infection.

My pet is very thirsty and wants to drink excessive amounts of water. Why can't I let him?

Most patients have not been allowed to eat any food for at least 12 hours leading up to anesthesia; therefore, you should introduce liquids slowly, then solid food when liquids are tolerated (not being vomited). Anesthesia can also make a patient feel nauseated, and for this reason as well, gradual reintroduction of water and then food is essential.

My pet's temperature is only 98°F (36.7°C); what can I do to warm her up?

You may wrap a warm blanket around your pet to help increase the temperature. Place a blanket in a clothes dryer for 10 minutes, remove from dryer, and wrap around your pet. If the body temperature does not increase above 98°F (36.7°C), you may need to reheat the blanket periodically to maintain the warmth. Additionally (or alternatively), gentle massage of your pet can increase circulation and restore normal temperature faster. Finally, making sure that the bedding on which your pet is lying is dry and well insulated from a cold floor is important to prevent excessive cooling and a delayed recovery.

My pet has diarrhea tonight. What should I do?

Some pets experience stress while undergoing anesthesia, which may induce diarrhea. You may offer your pet a small amount of a bland diet for dinner. Cook 4 parts white rice to 1 part chicken. Boil the chicken as you would the rice, and mix after each ingredient has been cooked. Allow the food to cool before offering. Refrigerate remaining food.

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