LIVERMORE
FAMILY PET HOSPITAL

ANESTHESIA INFORMATION

General anesthesia is used for many surgical procedures or procedures where your pet must be fully asleep. General anesthesia, simply put, is a controlled unconsciousness, where your pet's level of consciousness changed so they don't feel pain and don't move. In this state, we are able to perform the procedure safely, accurately, painlessly, and without fear. Most healthy pets - even senior pets - don't have any problems with anesthesia. Potential risks are more closely related to the type of procedure being done and your pet's general health rather than to the anesthesia itself.

Like any medical procedure, anesthesia does have risks. These risks can run from minor problems, such as mild vomiting after recovery from anesthesia, to life-threatening problems, such as cardiac arrest or blood clot formation. Anesthesiarelated deaths are rare, though, and while complications can occur, the veterinary team will take all of the necessary precautions to ensure that your pet is safe and can handle anesthesia. The risks of anesthesia should always be considered along with the benefits, and compared to the risks and benefits of the alternative non-anesthetic options (if available). In an emergency, the risks of anesthesia are usually minimal compared to the risks of not performing the emergency procedure. For elective procedures, there's more opportunity to postpone anesthesia if some risks that are present can be reduced by treatment prior to the anesthesia and procedure.

Before Anesthesia

Prior to receiving anesthesia, your veterinarian will perform a thorough physical exam on your pet, review your pet's medical history and discuss any risk factors. Your veterinarian will recommend blood testing and any other warranted tests (such as chest x-rays or an ECG). If you have any questions about your pet's health or his or her anesthetic risk, ask your veterinarian for an explanation that will help you make an educated decision. Please understand that if any diagnostic recommendations are

declined, your veterinarian will be unable to fully understand your pet's possible risk level.

Prior to anesthesia, your pet will likely be given a pre-anesthetic sedative to reduce his or her stress and ease the process. An intravenous catheter is usually placed to allow administration of fluids and medications. The anesthetic may be delivered by gas inhalation (using a gas anesthesia machine), intravenous infusion, or a combination of the two.

During Anesthesia

While under anesthesia, your pet will receive monitoring and care comparable to what you'd receive if you underwent anesthesia. This may include intravenous fluids and/or medications to support your pet's circulation and blood pressure; an endotracheal tube inserted into your pet's trachea (windpipe) to deliver the anesthetic gas and provide oxygen to your pet's lungs; pulse oximetry to measure the oxygenation of your pet's blood; blood pressure monitoring; temperature monitoring and warming blankets to prevent hypothermia (low body temperature); monitoring of CO2 levels; and electrocardiography (ECG, also called EKG) to monitor your pet's heart. Appropriate medications and adjustments will be made as needed based on these monitoring parameters.

After Anesthesia

Once the procedure is done and it's time for your pet to wake up from the anesthesia, your pet will be placed in a quiet, semi-dark kennel with blankets and warmers to recover. Pets are closely monitored during this time to make sure that they are recovering normally. Depending on the procedure and your pet's medical condition, he or she may be sent home later in the day (once adequately recovered from anesthesia) or he or she may need to be referred to a 24 hour care facility (Sage or IronHorse Vetcare, both in Dublin, or VEG in San Ramon). Your veterinarian will discuss this prior to the procedure if this is anticipated, or after the procedure if a situation arises that warrant these recommendations.

Once at home, your pet may continue to be "groggy" for 24-48 hours. Some pets are ready to eat that night, but some pets take 24-48 hours to regain their normal appetite. Less commonly, some patients have vomiting and/or diarrhea after anesthesia. If your pet has experienced this in the past, please alert your veterinarian so that they can provide proactive medications to help prevent this.

What is "high risk" anesthesia?

Anesthesia is considered "high risk" when your pet has health problems that increase his or her risk of death while anesthetized. This does not mean that death is expected, but your pet may be less able to tolerate anesthesia or the procedure and you should be

prepared in case of any catastrophic events. The benefits of the procedure being performed should be weighed against these risks to determine what's best for your pet. In some cases, your veterinarian may refer you to a specialty center or referral hospital that has an on-staff anesthesiologist and other specialists readily available to address any problems that occur.

***SPECIAL NOTE FOR BRACHYCEPHALIC (SHORT-NOSE) BREEDS:** Flat faced breeds such as English bulldogs, Boston terriers, and pugs are at increased risk for anesthesia due to their poor airway systems (known as brachycephalic syndrome). Most of these dogs will still recover normally from anesthesia. If complications do occur, they can often be managed, although they may require include longer hospitalization or ICU care for recovery. However, in rare instances, these complications can lead to death. These breeds are also more susceptible to pneumonia after anesthesia, so it is important they be monitored for significant cough, lethargy, fever, or persistent inappetence that can develop within 24-72 hours after anesthesia.

What Can You Do to Reduce Your Pet's Risk?

- Let your veterinarian know if your pet has ever had a reaction to sedation or anesthesia
- Make sure your veterinarian is aware of all medications and supplements (including over-the-counter products) your pet is receiving
- Keep your pet healthy with regular preventive care
- Keep your pet at a healthy weight
- Perform recommended diagnostics prior to anesthesia when able
- Follow your veterinarian's instructions before anesthesia, especially with regards to withholding food and/or water
- Follow your veterinarian's instructions regarding any medications you should – or should not – give to your pet prior to anesthesia

This has been adapted from the AVMA:

https://www.avma.org/resources/pet-owners/petcare/when-your-pet-needs-anesthesia