Airport Veterinary Clinic's Pre-Surgery Safety Package

Today's modern anesthetic monitors have made surgery much safer than in the past. Here at Airport Veterinary Clinic, our veterinarians perform a thorough physical exam on your pet before administering anesthetics, to minimize the risk of complications.

Although pets may appear to be healthy based on physical appearance and activity, many clinical signs of disease do not develop until late in the disease process. Pets cannot tell their caretakers when they do not feel 100%, and because of their instinct to protect themselves, many animals will 'hide' their illness. Performing blood work will help our veterinarians detect any abnormalities, and allow us to manage any disease process properly allowing the patient to live a longer and healthier life.

Dr. Holscher, Dr. Lowdermilk, and Dr. Mellencamp believe pre-anesthetic blood testing is important in reducing the risks associated with anesthesia. Every pet needs blood testing before surgery to ensure that the liver and kidneys can process the anesthetic medications without any negative side effects. If there is a problem, it is much better to find it before it causes anesthetic or surgical complications. If serious problems are detected, surgical procedures can be postponed until the problem is corrected.

Although procedures such as neuters, spays, and dental cleanings are often considered "routine", they are actually invasive procedures that are anything but routine, especially if something goes wrong.
When surgery is concerned, pre-anesthetic testing can help ensure the best outcome for your pet.

To perform the pre-anesthetic blood work-up, your pet's veterinarian will collect a small amount of blood from your pet's vein (usually either from the neck or leg). This blood will be analyzed by state-of- the-art, Jab equipment located in Airport Veterinary Clinic's onsite laboratory.

Therefore, you may be wondering what type of tests are ran during a pre-anesthetic screen. The first test is known as a CBC, or complete blood count. This test analyzes the number, type, and in some cases, shape of the different blood cells in your pet's body: red blood cells, white blood cells, and platelets.
The CBC provides important information about your pet’s general health.
Your pet's pre-anesthetic workup also includes a chemistry profile, which contains tests for multiple chemical components in the blood's serum. The typical pre-anesthetic chemistry profile checks the levels of many chemicals in your pet's body.

- Alkaline Phosphatase (AlkPhos)/ Alanine Aminotransferase (ALT): encompasses a group of enzymes, mainly secreted by the liver and bone. This test examines your pet's liver function.
- Blood Urea Nitrogen (BUN): is primarily used, along with the creatinine test, to evaluate kidney function.
- Creatinine: creatinine is the product of phosphocreatine metabolism, which is important in muscle contractions. This test works hand-in-hand with BUN, and is extremely valuable in determining how well the kidneys are functioning.
- Glucose: is the product of carbohydrate metabolism and is the primary source of energy for the body. Low blood glucose levels will greatly increase risks associated with anesthesia.

Dr. Holscher, Dr. Lowdermilk, and Dr. Mellencamp also recommend that all patients receive intravenous (IV) fluids during surgical procedures. This helps maintain blood volume, which in turns helps the veterinary team maintain blood pressure and allows for a smoother recovery. The use of IV fluids has also dramatically changed the safety of anesthesia. Fluids aid in keeping the heart rate and blood pressure at the levels necessary to bring adequate blood to the organs. This has been shown to improve a pet's recovery from anesthesia as well as reduce the risk of organ damage. Fluids also help to offset the minor loss of blood your pet experiences during surgery. Additionally, the IV line allows instant access to administer emergency drugs in the event that your pet does have a negative reaction to the anesthesia. This instant access improves the odds of your pet surviving a negative anesthetic event. Fluids also help to prevent dehydration during the time your pet is unable to drink water. This also helps them recover and wake up more quickly from anesthetic. Do you remember that you most likely had IV fluids during your last surgical procedure?

If you have any questions regarding the Safety Package that Dr. Holscher, Dr. Lowdermilk, and Dr. Mellencamp recommend for your pet, please feel free to call our office. All of our staff members are happy to explain how these procedures are beneficial to your pet's health!