## Surgery: Why we do what we do!

**Pre-Surgical Examination:** Our doctors examine every pet prior to surgery. They listen to the heart and lungs, check ears, eyes teeth, skin, abdomen, skeletal system and more! They do this to make sure that your pet does not have any obvious physical abnormalities that could interfere with anesthetic process or surgical procedure. We want to ensure that your pet is healthy before we use anesthesia and perform surgery. If we do find any issues that



need to be addressed prior to surgery, the doctor or their surgical technician will call you to discuss their findings and a recommended plan for your pet.

**Pre-Surgical Bloodwork and ECG Screening:** This is a screening panel of bloodwork and an ECG to check the heart. The bloodwork checks your pet's liver and kidney functions, blood sugar level and protein level. Normal, healthy kidneys and liver are important to be able to metabolize and handle the medications we use for anesthesia. Our doctors use the results from these tests to help decide what medication / anesthetic protocol to use for each individual pet. If abnormalities are found, the doctor will call to discuss different options. The doctor may recommend an alternative anesthesia protocol, or opt to not do the surgery until the underlying disease/problem is treated and resolved.

IV Catheters and Warm Fluid Therapy: The IV catheter is extremely important. We place a small catheter into the vein of every surgical patient, typically in one of the front legs. This is exactly what humans have done as well (although we do have to shave a small area of hair to ensure sterility). This allows us to give all of our intravenous medications through this catheter (pets only have to be "poked" once, rather than several times) and most importantly, while your pet is under anesthesia during surgery, we have immediate access to a vein/the circulatory system should we ever experience an emergency situation. We don't anticipate any issues with your pet's anesthesia or surgical procedure and crisis situation are rare, but we must be prepared in case something were to happen. Warm fluid therapy during your pet's surgery helps to regulate your pet's body temperature as well as keeping their blood pressure normalized. IV Fluids also help the body compensate for blood loss. IV Fluids are a very important part of keeping your pet safe while under anesthesia.

Anesthetics: We use the safest medications available to anesthetize your pet. Your pet will receive injectable "pre-medications" to start the anesthesia process. Typically this involves medications that 1) help your pet maintain an appropriate heart rate while under anesthesia 2) pain prevention—we give this before surgery so it is in place working during the surgery and helps to ensure that they wake up quietly and without pain and 3) sedation—this pre-sedative helps your pet relax and begins the anesthetic process. After these medications take effect, your pet will receive another injection of a fast acting anesthetic. This action of this anesthetic allows us time to place an endotracheal tube in your pet's throat and initiate inhalant or gas anesthesia in addition to oxygen. This anesthesia will keep your pet "asleep" and without pain for the entirety of the surgical procedure. We use two types of inhalant anesthesia, Isoflurane and Sevoflurane. These are very safe and effective anesthetics. Isoflurane is the industry standard. It is what most veterinarians use on most surgical patients. Sevoflurane is the safest inhalant anesthetic available for pets. With Sevoflurane, pets wake up faster and are up and around faster because their body metabolizes this anesthetic much faster than other anesthetics.

**Surgical Monitoring:** Surgical monitoring is included in the surgical fee. All pets undergoing anesthesia are monitored not only by the doctor and surgical technician, but also with electronic monitors. We have equipment that monitors your pet's heart rate, blood oxygen levels, blood pressure, CO2 level and EKG throughout their surgery.

Laser Surgery: We have the capability to do your pet's surgery with our surgical laser. Instead of using a conventional steel scalpel blade, the laser is a beam of light that makes the incisions. The laser cauterizes blood vessels and seals nerve endings as it passes through tissues, which means that there is very little, if any, blood loss and less pain is experienced at the incision sites.

**Post Operative Pain Prevention:** All surgical patients receive an injection to relieve pain at the time of their surgical procedure. This will last several hours. We typically recommend a second injection just prior to going home to help your pet be more comfortable and less painful during the evening/night following their surgery. We also use our K-Laser and provide your pet a therapeutic laser session as they are recovering in order to reduce pain and inflammation associated with their surgery.