

## **Anesthetic and Pre-anesthetic Protocols**

### **Why do we recommend pre-anesthetic blood work?**

Most anesthetic drugs are metabolized primarily by the liver, the kidneys, or a combination of both organs. Having an accurate knowledge of the current status of a patient's internal organs allows us to detect in advance of the anesthetic procedure any abnormalities that may make anesthesia contraindicated. If we detect an abnormality, we may select a different anesthetic that would be safer for that patient. If the abnormalities are severe, we often postpone further plans for anesthesia, if possible, until the problem is further examined and resolved. Part of our pre-anesthetic profile may include looking for any abnormalities on the complete blood count. This would include indications of anemia, inflammatory, or infectious problems. These factors can affect the animal's ability to stay well oxygenated during the anesthetic, as well as the body's stress response to surgery or anesthesia. Lastly, we may include in our pre-anesthetic profile, measurements of electrolytes. These can affect muscle function and neurological function. The greatest concern is the effect of the anesthesia on the heart muscle and brain during anesthesia and recovery. This is recommended for all ages of animals undergoing anesthesia. We occasionally find significant abnormalities in the blood work of apparently healthy young animals, and more frequently in that of our geriatric patients..

### **Why do we recommend intravenous fluids be administered at the time of the anesthetic procedure?**

All anesthetic drugs, even the safest ones available will cause a decrease in systemic blood pressure. If general anesthesia is to last for more than 5 minutes, which is usually the case for a surgical or radiographic procedure, we will often recommend that an intravenous catheter be placed and fluids be administered by this route. In delivering fluids in this fashion, we are not only replacing fluid loss for the time the patient will be fasted and recovering from the anesthesia, but more importantly, we are supporting the blood pressure and the cardiovascular system. The fluids help to counteract some of the detrimental effects of anesthesia on the heart rate, blood pressure, and peripheral circulation. Having intravenous access in place also provides an added safety advantage should we need to use drugs in an emergency fashion and the outcome depends on rapid access and action of these drugs. In geriatric patients or those in a debilitated or dehydrated state, the use of intravenous fluids may be required by the doctor for the safety of the patient.

### **Why do we recommend ECG (electrocardiogram) and Pulse Oximeter (oxygen blood saturation) monitors?**

We recommend these monitors in addition to our regular respiratory monitors because the ECG and Pulse Oximeter add an extra level of safety to our anesthetic and surgical procedures. The ECG would warn us of any conduction disturbances in the heart, and the pulse oximeter measures the oxygen levels in the blood. These machines also monitor your pet's pulse and body temperature.

### **Our track record:**

We have an excellent track record in performing anesthesia on healthy, ill, geriatric, and young animals. Our stringent adherence to precautions with anesthesia has afforded us a very low complication rate. Our staff is committed to highest quality of care for your pet.