

## The benefits of pre-surgical testing

- Determination of the safety of drugs used for pre-surgical medication as well as any that may be needed post-operatively**
  - Prior to anesthesia, your pet will be given one or more medications to prepare for full anesthesia. Blood tests will help determine which medications are safe and appropriate for your pet.
- Identify unseen disease**
  - Disease detected before anesthesia reduces the likelihood of complications during anesthesia.
  - Detecting disease before clinical signs are apparent increases the likelihood of a successful outcome and often lessens the cost of treatment.
  - Early identification of a problem can prevent more obvious signs of tragic illness.
- Provide surgical peace of mind**
  - You are doing everything possible to ensure a positive outcome for your pet's procedure. Pre-surgical testing is fast, easy and affordable insurance for your pet's health and your peace of mind.
- Establish healthy baseline values**
  - Many patients show subtle changes in their blood values over time. The changes cannot be identified without the normal level for that individual patient.
  - Normal test results are great! They indicate reduced risk associated with anesthetic procedures.
- Evaluate your pet's ability to remove the by-products of the anesthetic medications from the body**

## Chemistry blood tests

**Alanine Aminotransferase (ALT)**  
Increased levels of this enzyme may be a sign of liver damage or disease. ●

**Albumin (ALB)**  
Most important protein in the body. Low levels indicate such things as liver, kidney or intestinal disease. ●●●

**Alkaline Phosphatase (ALP)**  
Elevations can indicate liver swelling or decreased bile flow caused by liver disease or endocrine disorders such as thyroid disease, diabetes, Cushing's Disease or Addison's Disease and may also be an indicator of certain bone diseases. ●●

**Amylase (AMY)**  
Amylase is an enzyme produced to help digest food. Elevated levels can indicate disease of the pancreas, intestines or kidney. ●●●

**Calcium (Ca)**  
Important to monitor for early signs of certain cancers. Imbalanced calcium and phosphorus levels are indicative of certain metabolic diseases such as those of the parathyroid gland and kidney disease. ●●

**Electrolytes (Na+, K+)**  
Potassium levels are important for normal muscle function and heart rate. Sodium levels are important for body fluid balance. Both are critical to your pet's health and aid in the diagnosis and treatment of several life threatening diseases. ●●

**Bile Acids (BA)**  
Bile acids are one of the best measures of liver function and are vital in identifying and monitoring liver disease, especially when taking medication that may affect the liver. ●

**Blood Urea Nitrogen (BUN)**  
BUN is made in the liver and removed from the body by the kidneys. It helps us evaluate both of these organs. ●●

**Cholesterol (CHOL)**  
Elevated levels may be an indication of a variety of disorders including hypothyroidism in dogs, liver and kidney disease. ●●●

**Creatinine (CRE)**  
An important value to monitor kidney function. ●

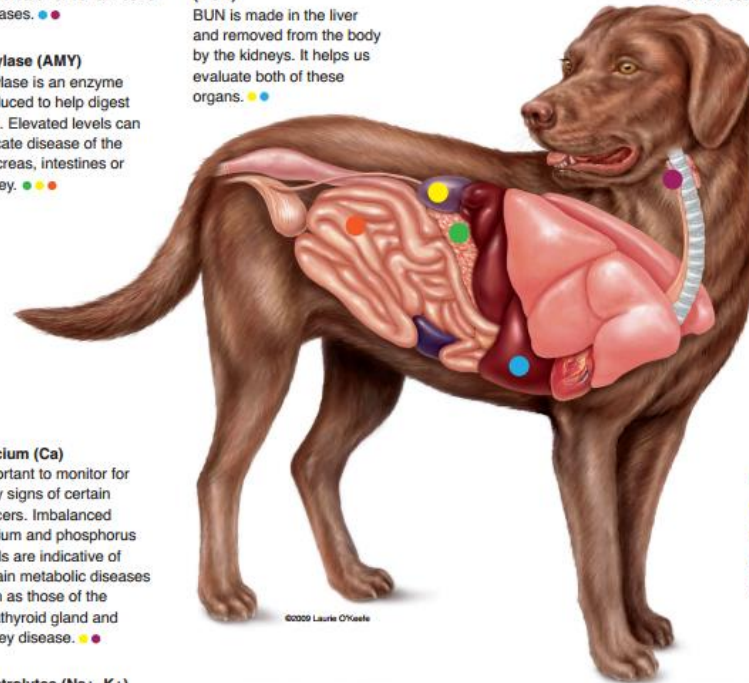
**Globulin (GLOB)**  
A body protein that indicates problems such as inflammation or infection.

**Glucose (GLU)**  
Elevated levels can indicate problems such as diabetes. Low levels can be associated with liver disease or other issues. ●●

**Thyroxine Test (T4)**  
An excellent screening test for function of the thyroid gland in dogs and cats. The thyroid glands play a major role in metabolism. ●

**Total Bilirubin (TBIL)**  
An important value to evaluate the liver and when there is a low red blood cell count. ●

**Total Protein (TP)**  
We utilize this value to determine many conditions such as anemia and diseases of the liver, kidney and gastrointestinal tract. ●●●



- pancreas
- kidney
- intestine
- liver
- thyroid

**Gamma Glutamyl Transferase (GGT)**  
Measurement and monitoring is important for differentiating types of liver disease. ●

**Phosphorus (PHOS)**  
Important to monitor for kidney disease as well as its balance with calcium to monitor many conditions. ●

## Hematology blood tests

**The Complete Blood Count (CBC)** is a test that provides measurements of red blood cells, white blood cells and platelets. The CBC is an important tool that can detect conditions such as anemia, leukemia and other blood disorders as well as assess stress levels, inflammation, infection and blood clotting capabilities.

### CBC Components

**Red Blood Cells (RBCs)** carry oxygen to the tissues of the body and transport carbon dioxide to be exhaled by the lungs. Anemia results when RBCs are not present in sufficient numbers. Determination of the cause of anemia is vital.

**White Blood Cells (WBCs)** play a major role in your pet's immune system function. Normal baseline levels are very important to determine the importance of changes seen with infection or inflammation. Elevations noted without signs or symptoms can help us treat your pet more effectively.

**Platelets** are a crucial component of the blood clotting system. Adequate numbers must be present to prevent or stop bleeding. Therefore, it is very important that platelet numbers are known prior to any surgical procedure being performed and to identify clotting issues before they become critical in the non-surgical patient.

### Coagulation Testing

In addition to platelets, a system called the coagulation cascade must be working properly to control and stop bleeding. Genetics, medications and toxins can affect this coagulation cascade.

## Evaluating your pet for pre-surgical disease

Name \_\_\_\_\_  
 [Patient Name]  
 Age \_\_\_\_\_

Breed: \_\_\_\_\_

When did your pet last eat? \_\_\_\_\_  
 (INITIAL: \_\_\_\_\_)

Has your pet ever had an anesthesia problem or reaction in the past?  Y  N

If yes, please fill out the following information:  
 Name of clinic where anesthesia occurred: \_\_\_\_\_

Contact phone number: \_\_\_\_\_  
 Date of procedure: \_\_\_\_\_

### Does your pet have any of the concerns listed below?

1. Decreasing Appetite or not eating  Y  N
2. Vomiting  Y  N
3. Diarrhea  Y  N
4. Weight Loss  Y  N
5. Beginning to act "his or her age"  Y  N
6. Are there changes in water consumption or urine output?  Y  N
7. Is the litter pan more saturated routinely?  Y  N

### Has your pet ever been diagnosed with any of the following diseases?

1. Seizures / epilepsy  Y  N
2. High blood pressure  Y  N
3. Heart disease  Y  N
4. Hyperthyroidism (Feline)  Y  N
5. Diabetes mellitus  Y  N
6. Kidney disease  Y  N
7. Liver disease  Y  N
8. Hyperadrenocorticism (Cushing's disease)  Y  N
9. Hypoadrenocorticism (Addison's disease)  Y  N

## My next appointment

Pet: \_\_\_\_\_

Date: \_\_\_\_\_

Doctor: \_\_\_\_\_

Contact Number: \_\_\_\_\_

Reason for Appointment: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_



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## A PET OWNER'S GUIDE TO AVOIDING UNNECESSARY COMPLICATIONS

### PRE-SURGICAL AWARENESS



**T**HE well-being of your pet is important when undergoing anesthesia for any procedure. Anesthetics used during your pet's operation are extremely safe and a healthy pet undertakes minimal risk during anesthesia. However, it is important to remember that all anesthetic procedures carry some degree of risk.

Prior to anesthesia, our team will review the history of your pet's health and perform a complete physical examination and necessary blood work providing a complete physiological picture of your pet's current health status.

Reducing the risk of anesthesia for your pet, we use state-of-the-art monitoring equipment and the safest anesthetic available. To reduce the risk of anesthesia for your pet, we fully evaluate your pet's health, use state-of-the-art monitoring equipment, and use the safest anesthetic possible.

### Testing recommendations

Testing recommendations are made based on your pet's breed, age or history. These may include:

**Level 1\*** Chemistry Panel, Coagulation Testing, Complete Blood Count

**Level 2\*** Chemistry Panel, Coagulation Testing, Complete Blood Count, Urinalysis

**Level 3\*** Chemistry Panel, Coagulation Testing, Complete Blood Count, Urinalysis, Thyroid Testing, Blood Pressure, Electrocardiogram

Age	0-20 lbs	21-50 lbs	51-90 lbs	>90 lbs
0 months	13-16	13-16	13-16	13-16
2	24	24	24	24
3	28	28	28	32
4	32	33	34	38
5	36	37	38	42
6	40	42	45	49
7	44	47	50	56
8	48	51	55	64
9	52	56	61	71
10	56	60	66	78
11	60	65	72	86
12	64	69	77	93
13	68	74	82	101
14	72	78	88	108
15	76	83	93	115
16	80	87	99	123
17	84	92	104	
18	88	96	109	
19	92	101	113	
20	96	105	120	