

Front Range Animal Hospital
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Understanding Preanesthetic Testing

Great improvements have been made in anesthetics over the years, and today, anesthesia in our pets is generally very safe. Nevertheless, we encourage blood tests for all our patients that are scheduled for an anesthetic.

The purpose of preanesthetic blood testing is two-fold. We want to determine: 1.) Is there any underlying health problem that would be worsened with the stress of anesthesia/surgery? 2.) Is there any underlying health problem that would necessitate a change in the type of anesthesia used, or make any anesthesia a risky affair? Most anesthetics require processing through either the liver or kidneys so we are especially interested in how these organs are working. If our tests indicate one of these organs isn't quite right, we would choose an anesthetic regimen that would avoid that organ.

Remember: Many times a physical exam will be normal in these pets.

Preanesthetic Test #1: (Recommended for pets up to 3 yrs old)

1. PCV=**P**acked **C**ell **V**olume. This measures red blood cells, which carry oxygen. Anemia (a low PCV) can make anesthesia risky.
2. TP=**T**otal **P**rotein. This measures protein in the blood stream. Pets with low protein may not heal well from surgery.
3. BUN=**B**lood **U**rea **N**itrogen. This tests kidney function.
4. ALT=**A**lanine aminotransferase. This tests for liver problems.

Preanesthetic Test #2: (Recommended for pets 4-8 years old)

1. CBC: **C**omplete **B**lood **C**ount. This includes the PCV (checks for anemia), WBC (white blood count, a check for infection), and platelet count (important for blood clotting)
2. Presurgical panel: Includes two liver tests, two kidney test, glucose, and protein (important for healing).

Preanesthetic Test #3: (Recommended for pets 9 years and up)

1. CBC: see above
2. General Health Profile: Includes 3 liver tests, 3 kidney tests, 1 pancreas test, calcium, glucose, cholesterol and 3 different protein tests. This extended panel is very important to detect underlying health problems in our older patients that may be aggravated by an anesthetic or surgery, in addition to allowing us to choose the safest anesthetic regimen for that individual patient.

EKG Screening

The EKG, or ECG (Electrocardiogram), measures the electrical activity of the heart. EKG screening can detect heart disease, abnormal heart beats, or heart rhythm problems. EKG screening prior to anesthesia can help to minimize the risk of anesthesia and is recommended for pets of all ages.