3 Protects your pet future health

When veterinary surgeons carry out diagnostic tests they usually compare the results to reference intervals to determine whether the results are normal, or not. A **reference interval (or range)** is where the majority of healthy pets' blood values are found. Because these ranges are relatively wide, it is possible to have significant changes within the reference intervals that reveal a trend.

Trending allows a us to make valuable observations about subtle changes that would go unnoticed otherwise. There may be a pattern that will become obvious over time. With early detection and treatment, your pet has a better chance at a positive prognosis. Preanaesthetic testing can serve as a baseline for that animal and allows you veterinarian to monitor the animal's health in the future.

Just like with people, your cat's or dog's health will change as it ages. And because pets age faster than people, major health changes can happen quickly.

Clinic stamp

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Anaesthesia and your pet

Help us keep your pet healthy with preanaesthetic testing

The top three reasons to test your pet before anaesthesia

1. **It can help us select the safest anaesthetic protocol for your pet**

   When the preanaesthetic testing results are normal, we can proceed with confidence. When not, we can alter the anaesthetic procedure, or take other precautions, to safeguard your pet's health.

2. **It helps uncover hidden illnesses**

   Healthy-looking pets may be hiding a disease or ailment. Testing helps uncover illness before outward signs appear. Early detection allows prompt intervention, improving the chance for a better outcome.

3. **Protects your pet's future health**

   These tests become part of your pet's medical record, providing a baseline for future reference. Knowing blood values in health helps more accurately identify abnormalities on future blood work.

1 Blood tests help your vet select the best anaesthetic protocol for your pet

In addition to taking a detailed medical history, we will physically examine your pet. Because the internal organs and blood cells cannot be evaluated any other means, we recommend adding blood work to your pet's examination today. Depending on the age and situation of your pet, the blood work will contain a combination of the parameters listed below.

Haematology

Complete Blood Count (CBC) A CBC provides detailed information about red blood cells, white blood cells and platelets. The total white blood cell count, along with individual leukocyte counts, can help identify underlying stress, inflammation, an inability to fight infection and potentially, leukaemia.

Low platelet numbers can indicate a potential bleeding problem. We might advise that surgery be delayed if anaemia, inflammation or especially a low platelet count is present because these conditions could cause serious surgical complications.

Blood Chemistry

Alkaline Phosphatase (ALKP) An enzyme present in multiple tissues, including liver and bone. Elevated levels can indicate liver disease, Cushing's syndrome or steroid therapy.

Total Protein (TP) The level of TP can indicate a variety of conditions, including dehydration, inflammation and diseases of the liver, kidney or intestine.

Blood Urea Nitrogen (BUN) BUN is produced by the liver and excreted by the kidneys. Abnormally high levels can indicate kidney disease or dehydration, and low levels can be associated with liver disease.

Alanine Aminotransferase (ALT) An enzyme that becomes elevated with liver cell injury.

Creatinine (CREA) Creatinine is a byproduct of muscle metabolism and is excreted by the kidneys. Elevated levels can indicate kidney disease, urinary tract obstruction or dehydration.

Blood Glucose (GLU) High levels can indicate diabetes. In cats, high levels can also indicate stress, which can be a result of the trip to the veterinary hospital. Low levels can indicate liver disease, infection or certain tumours.

Albumin (ALB) A protein that is produced by the liver. Reduced levels of this protein can point to chronic liver, kidney, inflammatory or intestinal disease.

Cholesterol (CHOL) Elevated levels of cholesterol are seen in a variety of disorders, including hypothyroidism and liver or kidney disease.

Total Bilirubin (TBIL) Bilirubin is a breakdown product of haemoglobin, as well as a component of bile. Blood bilirubin levels are useful in indicating liver disease and may help identify certain types of anaemia.

Amylase (AMYL) An enzyme produced by the pancreas. The pancreas secretes amylase to aid in digestion. Elevated levels in the blood can indicate pancreatic disease.

Lipase (LIPA) Elevated levels of lipase in the blood, along with a clinical assessment, can signify possible pancreatitis, gastrointestinal disease and certain drug treatments.

Phosphorus (PHOS) Elevated phosphorus can be an indicator of kidney disease.

Calcium (Ca^{2+}) Increased levels can be seen with diseases of the parathyroid gland and kidneys, or as an indicator of certain types of tumours.

Electrolytes

Sodium, Potassium, Chloride (Na^+, K^+, Cl^-) The balance of these electrolytes is vital to your pet's health. Abnormal levels can be life-threatening. Electrolyte tests are important when evaluating vomiting, diarrhoea, dehydration and cardiac (heart) symptoms.

Urinalysis

(UA) The urine contains byproducts from many organs, such as the kidneys, liver and pancreas. Abnormal levels of these byproducts can indicate diabetes, or liver or urinary tract disease.

Endocrinology

Thyroxine (T_4) This is a measurement of the level of thyroid hormone circulating in the blood, and is helpful in identifying thyroid disease. Thyroid disease occurs in both dogs and cats, and can have a serious impact on health if left untreated. Testing is especially important in cats older than seven years.

Other Tests

- Coagulation tests: to help ensure the blood is clotting
- Cardiopet proBNP: an indicator of heart "overload"
- Electrocardiogram (ECG): to understand the electrical activity coordinating the heart beat
- Feline Immunodeficiency Virus (FIV) and Feline Leukemia Virus (FeLV)
- UPC: to investigate the kidney function

2 It helps us detect hidden illness

Blood tests help us to look at the function of the internal organs that we cannot examine with our eyes, ears and fingers during the clinical examination.

Liver

Biochemistry tests can indicate:

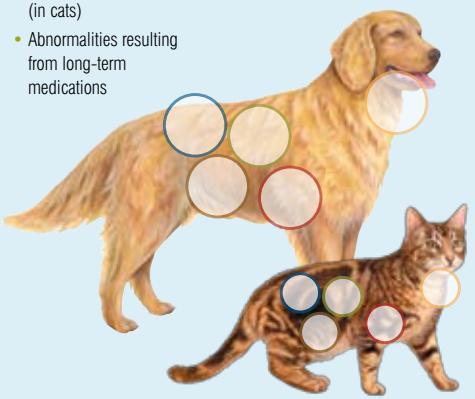
- Liver disease
- Dehydration (in cats)
- Cushing's syndrome (in dogs)
- Obstruction of the bile ducts (in cats)
- Abnormalities resulting from long-term medications

Heart and Lungs

Immunoassay tests can detect heartworm infection, which can cause disease in the heart as well as in the lungs.

Thyroid

A T4 test can indicate thyroid disease.



Teeth

Dental exams uncover abnormalities in teeth and the soft tissue of the mouth. Oral disease may indicate secondary health problems.

Kidney

Blood and urine tests can indicate:

- Early kidney disease
- Kidney failure
- Infection
- Stones
- Cancer
- Abnormalities resulting from long-term medications

Urinalysis and urine protein:creatinine ratio tests are used to better evaluate:

- Kidney function
- Urinary Tract
- Kidney infection

Pancreas and Intestine

Biochemistry tests can indicate:

- Pancreatitis (inflammation of the pancreas)
- Diabetes mellitus
- Abnormalities resulting from long-term medications
- Cancer

Faecal tests identify parasites that can cause:

- Diarrhoea
- Weight loss
- Blood loss
- Infections in humans (zoonosis)

Blood

CBC is used to screen for:

- Anaemia (low red blood cells)
- Inflammation
- Infection
- Stress
- Leukaemia
- Bleeding problem
- Inability to fight infection
- Hydration status