



Preventive Care and Your Pet

Blood Work and Your Pet

Pets can't say how they're feeling—it's usually how they look or act that tells you something is wrong. You play a key role in helping your pet combat illness and stay as healthy as possible. Awareness of the warning signs and regular checkups, including a physical exam and blood work, are the best ways to ensure that your pet lives a long, healthy and happy life.

What tests might my veterinarian run?

Several tests are routinely performed when blood work is recommended. They may include:

- **A complete blood count (CBC)** can identify infection, inflammation and anemia.
- **A complete blood chemistry panel**, including electrolytes, provides information about your pet's liver, kidneys and pancreas as well as other functions of the body, such as blood sugar and hydration.
- **A urinalysis** identifies an infection or inflammation in the urinary tract.
- **A thyroid function test** detects whether or not your pet's thyroid gland is functioning properly. Thyroid disease is very common in older cats and dogs.
- **A fecal test** allows veterinarians to check your pet for intestinal parasites, which may live in your pet's gastrointestinal tract. Since they are usually hidden from view, the only way to detect the presence of most intestinal parasites and identify them is by doing a fecal test.
- **Infectious disease screening** identifies if your pet has been exposed to parasitic diseases, such as tick-borne diseases, heartworm or other infectious diseases.

Your veterinarian may recommend additional tests.

When can I expect results?

Many of the tests routinely recommended can be performed in-clinic, providing results quickly and allowing for immediate treatment of your pet, but some routine screening tests will be sent to the reference laboratory which provides results often the next day. Normal results can rule out certain diseases immediately, so you can worry less. If results are abnormal, your veterinarian can make fast decisions about next steps, including treatment and additional tests. This saves you time as well as trips back and forth to your veterinarian, and gives you answers that may help your pet right away.

Preventive Care for Your Pet

Your pet's health changes with age, just as yours does. But, our pets actually age much faster than we do.

Do you know how old your pet is relative to you, or in "people years?" Use the charts on the right, based on your pet's age and weight, to find out!

Regardless of your pet's age, you play a key role in helping him combat illness and remain as healthy as possible. Remember, your pet cannot describe symptoms to you, but he will show you signs of disease or illness. Awareness of the signs of the most common diseases is one way to help reduce your pet's risk. It's a little scary to consider that 10% of pets that appear healthy to their owners during their regular checkups have underlying diseases.¹

1. Rehm M. Seeing double. *Vet Econ*. 2007;48(10):40-48.



Cats

age	weight
	0-20
1	7
2	13
3	20
4	26
5	33
6	40
7	44
8	48
9	52
10	56
11	60
12	64
13	68
14	72
15	76
16	80
17	84
18	88
19	92
20	96
21	100
22	104
23	108
24	112
25	116

Dogs

age	weight				
	0-20	20-50	50-90	>90	
1	7	7	8	9	
2	13	14	16	18	
3	20	21	24	26	
4	26	27	31	34	adult
5	33	34	38	41	
6	40	42	45	49	
7	44	47	50	56	
8	48	51	55	64	senior
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	geriatric
16	80	87	99	123	
17	84	92	104	131	
18	88	96	109	139	
19	92	101	115		
20	96	105	120		
21	100	109	126		
22	104	113	130		
23	108	117			
24	112	120			
25	116	124			

Charts courtesy of Fred L. Metzger, DVM, DABVP

Understanding Your Pet's Test Results

Testing can frequently detect illness in your pet before we see any outward signs of disease. Testing gives us immediate insights that we might not otherwise discover. And, treating your pet early can lead to a better outcome and possibly lower treatment costs. Once your pet's results are back, you can use the guide below to help you discuss and understand the results in depth with your veterinarian.

Complete blood count (CBC)

Red blood cells: Red blood cells (RBCs) are the most numerous and longest-living of the different types of blood cells; they typically make up almost half of the blood's volume. RBCs contain a special protein called hemoglobin (HGB) that binds to the oxygen in the lungs and enables the RBCs to transport oxygen as it travels through the rest of the body.



CBC is used to screen for:

- Anemia (low red blood cell count)
- Inflammation
- Infection
- Stress
- Leukemia
- Bleeding problem
- Inability to fight infection
- Hydration status

Reticulocytes: These are immature RBCs increased during times of increased red cell production, such as blood loss or immune-mediated anemia.

White blood cells: White blood cells are primarily responsible for fighting infections. There are five different types of white blood cells and each one performs specific functions to keep the body healthy.

Platelets: Platelets play a critical role in preventing bleeding.

Chemistry

Kidneys: Kidneys are responsible for filtering metabolic waste products, excess sodium and water from the blood stream, which are then transferred to the bladder for excretion.



Blood and urine tests can indicate:

- Early renal disease
- Renal failure
- Infection
- Stones
- Cancer
- Abnormalities resulting from long-term medications

Liver: The liver is a large organ with many different functions. It processes the blood by removing both bacteria and toxins as well as further breaking down many of the complex nutrients absorbed during the digestion of food into much smaller components for use by the rest of the body.



Biochemistry tests can indicate:

- Liver disease
- Cushing's syndrome
- Certain cancers
- Dehydration
- Obstruction of the bile ducts
- Abnormalities resulting from long-term medications

Pancreas: The pancreas is a small organ located near the small intestines and is responsible for producing several digestive enzymes and hormones that help regulate metabolism.



Biochemistry tests can indicate:

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

Glucose: Glucose is the basic nutrient for the body. It is highly regulated in the bloodstream, but does fluctuate for a few hours after eating. Glucose changes may be seen with a variety of metabolic diseases, such as diabetes, and various organ system abnormalities.

Electrolytes: Electrolytes (Na, K, Cl, tCO₂, Anion Gap) are critical to body function and must be maintained in very narrow limits. Dehydration is a common cause of electrolyte imbalance, despite how effective the body is at regulating the concentration levels.

Urine

Urinalysis: Although not a blood test, a urinalysis is essential for a comprehensive evaluation of kidney function. A urinalysis includes physical, chemical and microscopic evaluation of urine. This evaluation provides additional information about the kidney and liver, as well as the general well-being of your pet.

Thyroid

Thyroid: Thyroxine (T₄), a hormone produced by the thyroid gland, is essential for growth and metabolism. As your pet ages, thyroid function can become abnormal and cause signs of illness.



Endocrine tests can indicate:

- Hypothyroidism
- Hyperthyroidism

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