

Creatinine Level

- The kidneys are largely responsible for maintaining the body's creatinine level within a healthy range.
- The creatinine level can be affected by many things, including certain medications and various illnesses.
- If your pet's creatinine level is abnormal, additional tests may be recommended to determine the cause.

What Is Creatinine?

Creatinine is a substance that the body produces during normal metabolism. The body eliminates creatinine almost exclusively through the kidneys' filtration process, so measurement of creatinine is an accurate estimation of how well the kidney filtration processes are working. Anything that alters the ability of the kidneys to filter efficiently (such as dehydration) can cause changes in the level of creatinine in the blood.

The creatinine level is an important part of a blood test known as a *chemistry panel*, so it is often evaluated during routine wellness checkups or pre-surgery screening in healthy pets. Often, it is evaluated along with urine tests or other blood tests that screen for abnormalities involving the kidneys. Because various illnesses can affect the creatinine level, your veterinarian may recommend measuring your pet's creatinine level if your pet has any of the following signs of illness:

- Vomiting
- Appetite loss
- Lethargy (tiredness)
- Anemia
- Increased drinking and/or urination
- Weight loss
- Dehydration

How Is the Creatinine Level Measured?

To measure your pet's creatinine level, your veterinary team must obtain a small blood sample. This procedure is usually very quick; it may take only a few seconds if the patient is well behaved. For patients

that are very frightened or not well behaved, your veterinary team may want to use a muzzle, towel, or other gentle restraint device. In some cases, such as in patients with very thick fur, it may be necessary to shave the hair from the area where blood will be drawn. The hair will grow back, and this is often a good way to find the vein quickly.

Some veterinary offices have in-house blood analysis equipment, so they can perform the test for creatinine in the office and have results the same day. Other offices send blood samples to an outside laboratory for the test to be performed. If an outside laboratory is used, results are generally available within 1 to 2 days.

Be sure to tell your veterinarian about any medications or supplements your pet may be receiving, as some products can alter the creatinine level in the blood.

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What Does the Creatinine Level Tell Your Veterinarian?

Although changes in the creatinine level are commonly associated with kidney disease, many other factors can affect the creatinine. Some antibiotics, for example, can cause the creatinine level to increase.

The following are a few conditions that cause an abnormal creatinine level:

- Dehydration
- Kidney infection
- Kidney failure
- Toxic injury to the kidneys

Tests and Procedures

- Urinary blockage
- Shock
- Severe heart disease
- Muscle wasting or severe weight loss

If your pet has an abnormal creatinine level, your veterinarian will combine that information with other vital information about your pet to decide if further diagnostic testing is recommended to investigate the abnormal result. Additional tests may include a urinalysis (a screening test to evaluate components in the urine), radiographs (x-rays), or additional blood testing. Depending on your pet's

overall condition, your veterinarian may recommend medications or other management.

Are There Risks Associated With Measuring the Creatinine Level?

Very few risks are associated with measuring the creatinine level. Drawing blood takes only a few seconds, and your veterinary team will take precautions to ensure that your pet is not injured during this procedure. Once blood is obtained, all further processing is performed at the veterinarian's office or at a diagnostic laboratory, so there is no risk of harm to your pet.