

When I go to my doctor, my blood pressure is always checked. Is it possible for blood pressure to be measured in dogs/cats, and if so, when should it be done?

Blood pressure can, and should, be measured in dogs and cats. It is most commonly checked during surgery or following trauma to evaluate for low blood pressure (hypotension). However, during yearly wellness examinations in certain patients, blood pressure should also be measured to evaluate for high blood pressure (hypertension).

The incidence of hypertension in dogs and cats is unknown. It is diagnosed more frequently since veterinarians are now monitoring blood pressure on a more routine basis.

Similar to people, hypertension in dogs and cats can lead to eye, heart, kidney, and neurological disease. Most cases of hypertension in dogs and cats are secondary to diseases that occur in the geriatric (older) population.

In cats, hypertension is commonly secondary to chronic kidney disease and hyperthyroidism (an overactive thyroid gland). In dogs, it is commonly secondary to chronic kidney and Cushing's disease (adrenal gland dysfunction).

In rare circumstances, no underlying disease is identified and these patients are presumed to have primary hypertension. In contrast to people, primary hypertension is rare in dogs and cats.

Therefore, any dog or cat diagnosed with hypertension should be evaluated for the diseases listed above.

Also, if a dog or cat has a disease affecting the eye, heart, kidneys, or nervous system, blood pressures should be evaluated.

Otherwise, in a healthy pet, it is recommended to evaluate blood pressure during yearly wellness examinations beginning at 8 years of age.

The normal blood pressure for dogs and cats is a systolic blood pressure of 140-160mmHg and a diastolic blood pressure of <90mmHg.

One should also realize that due to the many dog breeds and their variation in size, blood pressure may vary more than the standard range used in people. For example, small breeds tend to have higher blood pressures than large breeds.

Diastolic pressures are technically difficult to obtain and are rarely evaluated due to the fact that diastolic hypertension, without concurrent systolic hypertension, has not been described in dogs and cats.

Dogs and cats, like people, suffer from “white-coat hypertension” (stress-induced hypertension during visits to the clinic). Therefore, as a general rule, therapy is not instituted until systolic blood pressure is >200mmHg. Exceptions occur in patients that have diseases exacerbated by hypertension.

Specific therapy for hypertension depends on the underlying cause. General therapies include: angiotensin converting enzyme inhibitor (ACEI), calcium channel blockers (i.e. amlodipine), and/or beta-blockers (i.e. atenolol or carvedilol). These are all similar to the drugs used in people.

Therapy should continue until the underlying disease causing the hypertension is properly managed. In some patients, the drugs may have to be used indefinitely to control the hypertension since many times the underlying disease cannot be eliminated.

This column is provided by the faculty of the OSU Boren Veterinary Medical Teaching Hospital. The large volume of questions does not allow individual direct responses to specific email questions so please watch for your answer in the column. Email your questions for the column to dvmoncall@postoffice.cvhs.okstate.edu and watch for your answer.

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