

Do Cats Get High Blood Pressure?

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Millions of people in North America have hypertension (high blood pressure) and some don't even know it. It turns out that hypertension is also an important cardiovascular disease of senior cats (10 years of age and older) and many cat owners don't know their pet is affected. Hypertension is important because it can have a devastating impact on many body systems, including the eyes, kidney, heart and central nervous system. Sometimes the first clues that a cat has hypertension come from signs noticed by the owner, such as dilated pupils due to blindness, bleeding in the eye, head tilt, loss of balance, disorientation, and even seizures. Signs of hypertension may also be general, such as poor appetite and lethargy.

The reasons why cats get hypertension are not well understood, but many cases of feline hypertension are secondary to an underlying disease. For example, hypertension occurs in 20% or more of cats with chronic renal disease (CRD). Hyperthyroidism is also associated with hypertension, but less commonly than CRD. However, CRD is often found in cats with hyperthyroidism, and hypertension may actually develop after successful treatment for the hyperthyroidism "unmasks" concurrent CRD. Anywhere from 17 to 50% of feline hypertension cases may have no obvious cause; however, some of them will be very early CRD that has not yet been diagnosed. Blood pressure (BP) measurement should be performed as part of wellness screening for all senior cats as well as those with associated conditions such as CRD, hyperthyroidism, and heart disease.

There are a number of machines on the market that can measure BP in cats. There are challenges inherent in the small size of the patient, so adaptations have been borrowed from human pediatric medicine for cats. It takes time and patience to get accurate BP measurements for cats, since they are prone to the "white coat effect" that is also well known in human medicine. The BP measurement should be done before any other procedures are carried out, such as a physical examination or drawing blood or urine samples. The procedure is best done in a quiet spot in the vet hospital, with the owner present and allowing about 10 minutes for the cat to settle down.

The BP readings can be taken with the cuff placed on a front leg, hind leg, or at the base of the tail. The cuff must be the right size for the patient, and it is placed at the level of the heart to get an accurate reading. Usually 5 to 7 readings are taken, the highest and lowest results are discarded, and the rest are averaged. Anxious, fearful or excitable cats will not have the same BP readings as they would at home in calmer surroundings. The "white coat effect" can increase the readings by 17 points or more.

Persistent increases in systolic BP above 170 mm Hg should be treated with medication. Ideally, the increase in BP should be documented on more than one occasion (i.e. two office visits, one week apart). However, a BP above 175 mm Hg measured on one occasion with concurrent signs of related eye or central nervous system (CNS) disease should be sufficient to start medical treatment.

Many drugs have been suggested for treatment of hypertension in cats, such as diuretics, angiotensin-converting enzyme inhibitors (ACE-inhibitors), beta-blockers, and calcium channel blockers. The most effective drug is the calcium channel blocker amlodipine (Norvasc®). Most hypertensive cats are started on a low dose and are re-evaluated within 1-2 weeks (earlier if the hypertension is severe). If the BP is still above 170 mm Hg at re-evaluation, the dose is increased gradually until control is achieved.

Treatment of hypertension will protect cats against serious adverse effects and improve quality of life. If your cat may be at risk for high blood pressure, please consult your veterinarian.