



Hypertension Guide

When you think of high blood pressure, or hypertension, most people think of the disease in humans. However, hypertension can affect cats in the same ways. If left untreated, it can lead to blindness and potentially fatal damage to the heart, kidneys and brain. But if the cause of the hypertension is determined and treated, the condition is quite manageable, often adding years to the cat's life.

A blood pressure reading is easy and un-invasive to obtain in cats. It involves placing an inflatable blood pressure cuff around the rear leg, just above the hock, that is attached to a handheld gauge. An ultrasound probe and ultrasound gel is placed on the bottom of the cat's foot, just below the large, central paw pad. We can hear the cat's pulse through the Doppler machine. The cuff is inflated, stopping the pulse, and then the cuff is gradually deflated until we hear the cat's pulse start back up again – this is the cat's systolic blood pressure reading. Veterinarians mostly are concerned with a cat's systolic blood pressure (the top number if you're saying 120/80).

We allow a certain amount of allowance when taking a cat's blood pressure, because they don't understand why they have a cuff around their leg and are sometimes stressed or nervous, which causes a rise in systolic blood pressure. In general, if a cat's blood pressure is higher than 170 or 180, the cat may have a problem with hypertension and further investigative diagnostic work-up may be indicated by your doctor.

Most often, affected cats have what is termed 'secondary' hypertension – that is, high blood pressure caused by some other disease. Cats rarely have primary hypertension. In a great majority of cases (about 80%), secondary feline hypertension is caused by either kidney disease or hyperthyroidism. Fortunately, both of these diseases are easily diagnosed, and your doctor can prescribe treatment to keep the primary disease controlled, therefore controlling the secondary hypertension.

The kidneys are responsible for maintaining the proper amount of fluid and salt in the body. They also produce hormones that help regulate blood pressure. However, diseased kidneys often produce abnormal amounts of these hormones or inappropriately retain salt and water. The resulting fluid retention leads to congestion in the circulatory system and, in turn, a buildup of pressure in the arteries.

In hyperthyroidism, there is an overproduction of thyroid hormone and a resulting elevation of the cat's metabolic rate. Due to this acceleration, the heart beats faster and more forcefully. This over-functioning results in increased pumping pressure, greater output of blood into the arteries, and sometimes a corresponding rise in blood pressure.

Obesity may also play a part in causing secondary hypertension in cats (just like in humans), However this has been generally under-investigated in veterinary medicine.

If left untreated, hypertension will create problems such as blindness (the increased blood pressure with detach the retinas in the eyes and cause blindness), seizures, disorientation, fluid retention, and difficulty breathing. Untreated hypertension has very dangerous effects on the body.

Feline hypertension doesn't create many outward clinical signs, but an owner may notice changes related to kidney disease (poor appetite, weight loss, increased drinking and urination) or hyperthyroidism (weight loss, good appetite, vocalization, and increase in activity). If your cat's pupils always appear dilated, even in light, this may be a sign of hypertension (caused by the increased pressure in the globe of the eye). Any cat suspected of having renal disease or hyperthyroidism should have his/her blood pressure checked.

Primary treatment for feline hypertension currently centers on two types of medication: calcium channel blockers, and angiotensin-converting enzyme (ACE) inhibitors – both of which work by relaxing and dilating the cat's blood vessels to decrease the pressure. Your doctor will also treat the primary disease responsible for causing the secondary hypertension. If hyperthyroidism is causing the hypertension, usually treating the thyroid disease will reverse the high blood pressure and the cat will not need to stay on the blood pressure medication. However, if kidney disease is responsible, most often the cat will need to remain on the blood pressure lowering medication long-term.

Please talk to your doctor or technician about having your cat's blood pressure checked.

