

# Your Pet

## HYPERTENSION AND KIDNEY DISEASE



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The Animal *Health* Trust is an internationally recognised centre of excellence in the field of veterinary medicine.

It has pioneered many breakthroughs in relation to improving the prevention, diagnosis and treatment of animal disease and injury and is entirely dedicated to improving the health and welfare of cats, dogs and horses.

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Animal *Health* Trust  
*the science behind animal welfare*



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## HYPERTENSION AND KIDNEY DISEASE



### What is hypertension?

It is a term used to indicate that blood pressure is increased above the normal range.

### How serious is it?

Some individuals have naturally higher pressures than others. It is only serious when blood pressure is consistently high enough to cause damage, eg to the eyes, the kidneys, the heart or the brain (through strokes).

### Do dogs or cats get hypertension?

They do, especially cats. Unlike people, where 20% of adults may have hypertension for no known reason, most hypertension in cats or dogs results from an underlying cause - often kidney disease in cats, although this is less common in dogs.

### How is blood pressure measured?

To diagnose hypertension in animals, it is essential that blood pressure is measured properly - not just taken from a single reading. An inflatable cuff is used and, for dogs, a series of 6 readings is taken and the average of the last 5 is calculated. The first is usually inaccurate. A machine designed for people has been validated for dogs ('DINAMAP'); it is automatic and does not need anyone to listen for sounds with a stethoscope. The cuff is placed on the tail, because this gives the most accurate readings. This machine can also be used in cats, but an alternative 'Doppler' machine is often used.



### What is normal?

It depends on the breed - greatly in dogs - and also on age. Blood pressure may rise with age in cats and dogs. Three different arterial pressures can be measured: peak (systolic), trough (diastolic) and the time-adjusted average (mean). Bitches have lower blood pressure than male dogs; both have similar, intermediate pressures when neutered.

### Do dogs get hypertension with kidney disease?

It is widely believed that they do - as do human patients and many cats. In fact, however, most dogs with kidney disease do not get hypertension or, at least, only slightly.

They should not be treated for hypertension unless there is real evidence that they are suffering from it.

### Is there more to be learned about hypertension in dogs and cats?

Yes, very much more. The Animal Health Trust's Centre for Small Animal Studies is actively investigating hypertension in dogs and cats. The veterinary scientists responsible for these studies are Jane Sansom and Andrew Sparkes and, with the help of our clients, we will be able to increase our current knowledge.

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