

Could Your Dog's Blood Pressure Put Them at Risk for a Stroke?

Pet Owner Guide | Canine Neurology & Heart Health

High blood pressure (hypertension) is one of the most common and preventable causes of stroke in dogs. When blood pressure stays elevated for too long, it strains the brain's blood vessels, raising the risk of both blockages and bleeds. The good news: it is measurable, manageable, and often treatable.

How High Blood Pressure Causes Stroke

Blockage Stroke (Ischemic): Prolonged high pressure damages the small blood vessels inside the brain, causing them to narrow and eventually close off. When blood cannot reach an area of the brain, that tissue is deprived of oxygen and begins to die.

Bleeding Stroke (Hemorrhagic): Chronic high pressure gradually weakens vessel walls. A weakened vessel can rupture, causing bleeding inside the brain, dangerous swelling, and serious neurological damage.

What Every Dog Owner Should Ask For

Any dog showing sudden neurological symptoms should have **both** of the following before leaving the vet:

- Blood Pressure Measurement
- Senior Blood Panel

These are low-cost, accessible steps that can identify the conditions most likely to cause a repeat event.

Conditions That Raise Stroke Risk

High blood pressure in dogs is almost always caused by an underlying health condition. If your dog has any of the following, ask your vet about monitoring every 3 to 6 months:

- Chronic Kidney Disease (CKD)
- Protein-Losing Kidney Disease
- Cushing's Disease (overactive adrenal glands)
- Underactive Thyroid (hypothyroidism)
- Diabetes
- Adrenal Gland Tumor (pheochromocytoma)
- Primary Hyperaldosteronism
- Heart Disease
- Idiopathic (Primary) Hypertension

Secondary high blood pressure accounts for many canine cases.

Routine blood pressure screening is one of the most accessible steps you and your vet can take to protect your dog's brain. Ask for it at every relevant visit.

Signs That Should Never Be Ignored — Call Your Vet Immediately

- Sudden head tilt, loss of balance, or stumbling
- Eyes moving on their own (flickering or darting)
- Sudden leg weakness or inability to walk
- Facial drooping or asymmetry
- Sudden confusion or not recognizing familiar people or places
- Multiple brief neurological episodes in a short period
- New seizures, especially in a middle-aged or older dog
- Unexplained sudden behavioral changes

Understanding Your Dog's Blood Pressure Reading (*systolic blood pressure, SBP*)

Systolic Reading (mmHg)	What It Means	Stroke Risk	What Your Vet May Do
Below 140	Normal	Very Low	Routine annual check
140 to 159	Borderline High	Low	Monitor closely; test for underlying disease.
160 to 179	High	Moderate	Begin treatment if organ damage is present; recheck soon.
180 or above	Dangerously High	HIGH	Immediate treatment. Do not wait.

<140

mmHg (SBP)

Secondary
Prevention Target

Based on ACVIM 2018
Consensus Guidelines

If Your Dog Has Already Had a Stroke or Brain Injury

A stroke, sudden loss of balance, or other brain-related event constitutes organ damage. In these cases, your vet does not need to see multiple high readings before starting treatment. **A single confirmed high reading is enough to act on.**

The goal is blood pressure **below 140 mmHg**. When the brain has already been injured, 160 mmHg is not an acceptable endpoint.

What Treatment Looks Like

Your vet may prescribe **amlodipine**, the most commonly used first-line medication. Dogs with kidney disease or protein in their urine may also receive **enalapril**. Blood pressure should be rechecked within 1 to 2 weeks of starting any new medication.

When to Ask for a Specialist Referral

Ask your vet about a neurology referral if your dog has had more than one vestibular episode, shows any sudden focal neurological sign (leg weakness, facial changes, or loss of coordination), has vertical eye movement, or has blood pressure that remains elevated despite treatment.