

When to Worry About Your Dog's Dilated Pupils

In many cases, dilated pupils are nothing to panic about, but there are times that they can signal pain, injury, or neurological problems. Here's how to know.

Reviewed by Dr. Tracy Duffner

STORY AT-A-GLANCE

- Dilated pupils are not always alarming — they often occur naturally in low light, during play, or when your dog is startled, but they can sometimes signal serious health issues
- Eye diseases can be to blame, including glaucoma (an emergency that can cause blindness), iris atrophy, progressive retinal atrophy, and age-related nuclear sclerosis
- Neurological problems such as head trauma, brain tumors, and seizures can disrupt the nerves controlling pupil size and often require urgent veterinary care
- Pain, toxin exposure, or certain medications may trigger dilation; poisoning from household items, plants, or human drugs often comes with other severe symptoms like vomiting or tremors
- Seek immediate veterinary attention if one pupil is larger than the other, pupils stay large in bright light, or dilation is paired with vision loss, redness, seizures, or sudden behavior changes

Your dog's eyes can tell you a lot about how they are feeling, whether they are curious, excited, scared, or relaxed. But sometimes, their eyes might reveal something more important — a change in their health. One sign that often catches pet owners off guard is when their dog's pupils look unusually large or "blown out."

In many cases, dilated pupils are nothing to panic about. They can be a natural reaction to dim light, playtime, or even excitement when you walk through the door. But other times, they can signal pain, injury, neurological problems, or even serious diseases that require immediate attention.

Understanding Your Dog's Pupils

Your dog's pupils — the black circles in the center of their eyes — are like tiny camera lenses, constantly adjusting to control how much light enters the eye. In bright light, they shrink (constrict) to protect the retina. In dim light, they expand (dilate) to let in more light so your dog can see better. This adjustment happens automatically, thanks to a team effort between the optic nerve (which sends signals to the brain) and the muscles in the iris (the colored part of the eye).

But pupils respond to more than just the light — they also react to emotions, pain, and certain medical conditions.¹ So if your dog's pupils stay large for longer than they should, even in bright conditions, it can mean something is interfering with this normal system.

In Many Cases, Dilated Pupils Are Perfectly Normal

Before we dive into possible problems, let's talk about the everyday reasons your dog's pupils might look bigger.^{2,3}

1. **Low light** — If you are in a dimly lit room or outside at night, your dog's pupils will naturally expand to help them see better. This is a normal and healthy reflex.
2. **Excitement or play** — When your dog is about to pounce on a toy or greet you at the door, their body is flooded with adrenaline. That adrenaline can cause their pupils to widen, sharpening their focus for whatever has their attention.
3. **Fear or surprise** — The "fight or flight" response is not just for humans. When your dog is startled — by a loud noise, a stranger, or an unfamiliar animal — their pupils can dilate as part of their instinct to either face the threat or run from it.

In these instances, your pet's pupils are dilated temporarily. Once the light changes or your dog calms down, their pupils should return to normal size.

However, if the pupil dilation is prolonged, and is persistent or unexplained, you need to be more alert. There could be some medical causes, some of which are serious.

Eye Conditions

Certain eye diseases directly affect the way pupils respond to light. Glaucoma is one example; this happens when the pressure inside the eye is elevated. The excess pressure can damage the optic nerve and cause the pupil to stay enlarged. Other symptoms of glaucoma include:⁴

- Cloudy-looking eyes, particularly the cornea (the front windshield to the eye)
- Eye pain (pawing at the face and squinting, rubbing the face against objects)
- Vision problems (bumping into objects)

Glaucoma is a medical emergency, and if you delay treatment, it can lead to permanent blindness. Consult with a veterinarian immediately. Other possible eye conditions include:⁵

- **Iris atrophy** — In older dogs, the muscles in the iris can weaken and thin, a condition known as iris atrophy. This can leave the pupils partially or fully dilated, even in bright light. While it is often age-related and not painful, it can make your dog more sensitive to light.
- **Progressive retinal atrophy (PRA)** — This is a slowly progressive disease that causes the retina to deteriorate, leading to vision loss. One of the early signs is dilated pupils, especially noticeable in bright conditions. You might also notice your dog hesitating in dark rooms or bumping into furniture at night.
- **Nuclear sclerosis** — This condition, which is where the lens becomes cloudy, develops in aging dogs. Please note, this cloudiness differs from glaucoma; lens cloudiness is behind the iris, glaucoma cloudiness is in front of the iris. Nuclear sclerosis causes trouble focusing and sometimes indirectly causes the pupils to appear larger than they are. While nuclear sclerosis is usually harmless, it can make vision less sharp.⁶

Neurological Problems

The brain plays a big role in controlling pupil size, so any injury or disease affecting the nervous system can cause dilation. A head trauma, for example, can lead to pupil changes. When your pet bumps their head — whether from a fall, a collision, or being hit by something — it can increase pressure in the brain or damage nerves that control the eyes.

If your dog's pupils are dilated after a head injury, treat it as an emergency. Other possible causes include:

- **Brain tumors** — Tumors in or near the brain can interfere with nerve signals to the eyes. According to Dogster, "When a tumor invades these areas, it disrupts the standard communication and coordination between the eye and the brain, impacting the pupils' ability to function normally."⁷ Along with dilated pupils, you might notice other signs as well, such as loss of balance or coordination, head-pressing, changes in behavior, and seizures.
- **Seizures** — During a seizure, the brain's electrical activity goes haywire, often causing the pupils to widen dramatically. If you see this paired with shaking, drooling, or loss of consciousness, call your veterinarian immediately.

Pain, Poisoning, and Medication Side Effects

Dogs cannot verbalize to you when they are hurting, but their eyes might tell you. Pupil dilation is a common reaction to pain — whether from an injury, dental problem, or internal illness. Look for other clues like limping, whining, decreased appetite, or reluctance to move.⁸

Coming into contact with a toxin or poison can also cause the pupils to dilate; this may come with other severe symptoms. Common culprits include:

- Human medications (like antidepressants, amphetamines, or marijuana)
- Household cleaners and pesticides
- Toxic plants

If your dog has sudden pupil dilation along with vomiting, drooling, tremors, or confusion, get them in with a veterinarian right away.

Some veterinary eye medications, especially those for treating inflammation or infection, are designed to dilate the pupils temporarily. Other drugs, including certain painkillers and antianxiety medicines, may have this side effect as well. If you are unsure whether your dog's medication is the cause, check with your veterinarian.

These Warning Signs Require Immediate Vet Attention

While not every case of dilated pupils is an emergency, there are certain red flags that can indicate a severe condition:⁹

- One pupil is larger than the other (anisocoria)
- The pupils stay dilated even in bright light
- Sudden vision changes (bumping into things, hesitation in familiar areas)

- Eye redness, cloudiness, or swelling
- Elevated third eyelid (the whitish membrane at the corner of the eye)
- Dilated pupils after head trauma or seizure
- Dilated pupils with other symptoms like vomiting, tremors, or extreme lethargy

If any of these apply, contact your veterinarian immediately. In many cases, catching the problem early can mean the difference between full recovery and permanent damage.

Dilated Pupils — Not Always an Emergency, but Definitely Do Not Ignore

Your dog's eyes are one of the most visible windows into their health. Knowing the difference between normal and abnormal dilation, and acting quickly when something seems off, can help protect your dog's vision, comfort, and overall well-being.

Trust your instincts. If your dog's eyes do not look right, it is always better to have them examined by a veterinarian. In many cases, early action can make all the difference — sometimes even saving your dog's sight or life.

Sources and References

^{1,3,9} [Holistapet, March 21, 2025](#)

^{2,6,8} [Dialavet, July 8, 2025](#)

^{4,5,7} [Dogster, May 22, 2025](#)
