

# What Happens When This Invisible Eye Part Goes Bad?

Did you know your dog had this invisible eye part? Most pet parents don't, until its sudden appearance spooks them. If that happens, get it looked at asap. It could mean severe pain and possibly even blindness. Medical treatment is critical and time is of the essence.

Analysis by Dr. Karen Shaw Becker

## STORY AT-A-GLANCE

- Unlike humans, dogs have not just two, but three eyelids
- Your dog's third eyelid is called the nictitating membrane; its jobs are to keep the cornea clean and protected, produce tears and produce antibodies to fight infection
- In most dogs the third eyelid isn't visible, and if it becomes visible, it signals a problem that needs investigating, such as cherry eye
- Cherry eye is the descriptive term for prolapse of the lacrimal (tear) gland inside the third eyelid
- Cherry eye can sometimes be medically managed, but often requires surgical correction (not removal of the gland)

**Editor's Note: This article is a reprint. It was originally published September 18, 2019.**

Did you know dogs actually have three eyelids? There's the upper lid, the lower lid and a third eyelid which is called the nictitating membrane, or haw. Third eyelids are essentially the same in different breeds and sizes of dogs, although the pigmentation can vary from breed to breed. Also, some are clear while others are cloudy.

Other animals with nictitating membranes include birds, cats, reptiles, fish and camels. The third eyelid helps keep their eyes moist in the face of wind, sand or dirt — no blinking necessary. As you can imagine, this comes in very handy when hunting for prey that can disappear in the blink of an eye.

## Everything You Ever Wanted to Know About Your Dog's Third Eyelid

Your dog's nictitating membrane is a thin, opaque tissue that sits in the inner corner of each eye, below the lower lid. And what is the need for a third eyelid, you ask? It actually serves four functions, according to board-certified veterinary ophthalmologist Dr. Deborah Friedman:<sup>1</sup>

- It acts as a windshield washer for the cornea (the clear surface at the front of the eye), clearing away debris and mucus
- A lacrimal gland inside the third eyelid produces about one-third of a dog's tears
- It contains lymphoid tissue that produces antibodies to fight infection
- It protects the cornea from injury

Human eyes function in a similar fashion, but with two eyelids instead of three. When a dog's third eyelid closes, it can appear as though his eye is rolling back in his head. And sometimes when dogs sleep, their upper and lower eyelids open, revealing the closed third eyelid or "white eyeball" as some startled pet parents describe it!

In most cases, the third eyelid remains retracted. If it becomes visible, it can be a sign of a problem that requires investigation. So, if you suddenly notice your dog's third eyelid for the first time, it could mean his eyeball has sunken into its socket due to severe eye pain.

It could also mean there's been an injury to the eye, or that the structure that holds the third eyelid in place is injured or weakened. Other causes of a visible third eyelid include allergic conjunctivitis and autoimmune disease.<sup>2</sup> In some dogs, a portion of the third eyelid is always visible — a condition called haws. When a dog is born with the third eyelid visible, this is a normal condition and does not indicate illness (although it is considered undesirable in show dogs).<sup>3</sup>

## **Cherry Eye: When a Good Haw Goes Bad**

"Cherry eye" is the descriptive term for prolapse of the lacrimal gland inside the third eyelid — a gland that is held in place by tiny tissue fibers. Prolapse can occur in one eye or both, and once one eye is affected, there's a very good chance the other eye will be as well.

When a prolapse happens, you'll see red, thickened, irritated tissue in the corner of your dog's eye. Once it prolapses, the gland can grow increasingly inflamed and even infected. Your dog may seem to be managing just fine, and fortunately, the condition isn't typically painful. However, because the gland is no longer seated in its normal position, it can prevent adequate lubrication of the eye, which can lead to dry eye.

Any dog of any age can develop cherry eye, but certain breeds are more prone to the condition than others. These include a lot of the brachycephalic (flat-faced) breeds, as well as the Beagle, Bloodhound and Bull Terrier. Other breeds with the tendency include the Cocker Spaniel, Saint Bernard and Shar-Pei.

The cause of third eyelid gland prolapse isn't well understood, but it's believed to be related to a connective tissue weakness in the ligaments that hold the gland in place.

## **Options for Treating Cherry Eye**

There are two ways to treat a prolapsed lacrimal gland — medically or surgically. Medical management of cherry eye requires quick and aggressive action. Treatment should begin as soon as the prolapse occurs and definitely within the first couple of weeks. In cases where a gland has been prolapsed for several months, there's usually no hope for nonsurgical intervention.

My approach with a dog who has just developed cherry eye is to immediately institute an aggressive protocol of herbal eye drops, specific homeopathics and nutraceuticals (including organic collagen and MSM) to control the inflammation and try to reestablish the integrity of the ligaments that are designed to hold the gland in place.

However, if medical treatment fails or isn't a viable option within a few weeks, it's necessary to perform a surgical procedure to seat the gland back in its normal position under the lower eyelid. One technique, called pocket imbrication, involves creating a new pocket in the tissue of the third eyelid to house the gland. Since there will be

inflammation after the procedure that will take time to completely resolve, surgical results won't become fully evident until weeks out.

Another technique, called an orbital rim tack, involves suturing the gland to the tissues surrounding the orbital bone. It's important to note that these surgeries occasionally can and do fail, and a second or third procedure is warranted. How well things progress after surgery also depends on the chronic nature of the condition and/or how inflamed the eye tissue is. Sometimes, lubricating eye drops are needed to supplement the tear film seasonally or periodically, throughout the rest of the animal's life.

Surgery to remove the lacrimal gland was once commonplace, but thankfully is no longer considered an acceptable form of treatment because it removes about half the lubrication capacity of the eye. Lopping the gland off is easy, but not a viable solution, long-term, without compromising the integrity of the eye. Removing the gland very often leads to keratoconjunctivitis sicca (KCS), or dry eye.

To prevent bigger problems down the road, including eventual blindness, dogs with KCS must depend on their owners to manually lubricate their eyes for the rest of their lives. If your vet suggests removing the gland as a form of "treatment," get a second opinion with a more up-to-date, qualified surgeon.

If your dog develops **cherry eye**, it's important to make an immediate appointment with your veterinarian to begin medical treatment, hopefully preventing the need for surgery and restoring the health of your pet's eyes.

## Sources and References

[dvm360 July 8, 2019](#)

<sup>1,2</sup> [Animal Planet](#)

<sup>3</sup> [PetMeds](#)

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