

CONJUNCTIVITIS IN DOGS

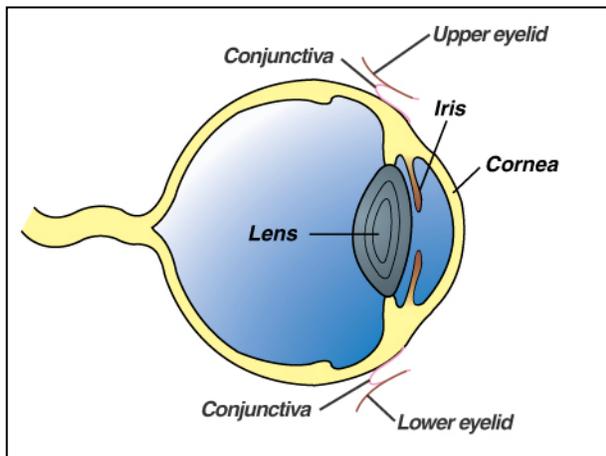
What does "conjunctivitis" mean?

Any medical term that ends in "itis" means "inflammation of". Conjunctivitis is defined as inflammation of the conjunctiva. The conjunctiva is a mucous membrane, similar to the lining of the mouth and nose. It is a layer of epithelial cells with mucus-secreting cells that covers the eyeball and lines the eyelids. Dogs and cats have a third eyelid, or nictitating membrane, in the inner corner of the eye. This is also covered by conjunctiva.

In normal pets the conjunctiva of the eyelids is not readily visible and has a pale, pink color. With conjunctivitis the conjunctival membranes become a deeper red color and the tears may become cloudy. The inner lining of the lids and/or the third eyelid may appear swollen and bulge out from behind the lids. Conjunctivitis can affect one (unilateral) or both (bilateral) eyes.

How will I recognize conjunctivitis in my dog?

If you see excessive tearing from one or both eyes, cloudy, yellow or greenish discharge, or prominent and reddened conjunctival membranes, your pet may have conjunctivitis and should be seen by a veterinarian. He or she may be reluctant to face light (photophobia), close or squint the affected eye(s) or the swelling of the conjunctiva may partially close the eye. The third eyelid may protrude and cover the eyeball. The dog may also rub its eye.



How is conjunctivitis diagnosed?

Inflammation is diagnosed by simply looking at the eye but we usually can't easily identify the cause. We try to rule out conditions such as a foreign body in the eye, blocked tear ducts preventing normal drainage of tears or injury to the eye and cornea.

What are some of the causes of conjunctivitis?

Causes of conjunctivitis can be roughly divided into two categories: **infections** from bacteria, viruses or other infectious organisms and **non-infectious** causes, such as trauma. Bacterial infections are more common in dogs whereas cats are more prone to viral infections in the eye.

What are some of the non-infectious causes?

Foreign bodies such as dust or sand may become trapped inside the eyelids, or exposure to irritant chemicals may initiate conjunctivitis that may become secondarily infected. Allergies are a common cause of conjunctivitis.

How can these causes of the conjunctivitis be differentially diagnosed?

Because most cases are caused by bacterial infection and because there is a need to reduce the immediate pain and inflammation, treatment is usually begun without a specific diagnosis. In cases that are not improving or where there is need to make a definitive diagnosis, swab samples may be taken from the eyes and sent away for specialized laboratory culturing and microscopic examination. Blood samples may also be useful.

What treatments are used?

The general approach is to use preparations containing antibiotics to control the bacteria and sometimes anti-inflammatory drugs, usually a steroid, to reduce the inflammation and encourage healing. These preparations come as either drops or ointment for instilling into the eyes. Local treatment may need to be supplemented with injections and/or pills.

How should eye medication be administered?

Regular and frequent treatment is essential. Most ophthalmic drops need to be administered at least 3 times a day. Ointments may require less frequent administration. Two people may be necessary: one to hold the pet and the other to administer the ointment, at least until the discomfort and sensitivity of the eyes has decreased.

Apply 1/4 to 1/2 inch (0.6 to 1.25 cm) of ointment to the eye, anywhere between the lids, onto the surface of the eyeball. Do not poke the tip of the tube in the eye. Do not smear the ointment on your finger to wipe onto the eye. This would introduce bacteria from your finger into the eye. You don't need to rub, the ointment will spread with the tear fluid to coat the eye.



Liquid preparations can be applied directly onto the surface of the eye; one or two drops per eye are usually sufficient. Hold the lids open so the drop falls in the eye and not onto the eyelid.

There are additional tips on administering eye medications below.

When should I expect a response?

Normally you will expect a rapid improvement, within 2-3 days. Once the conjunctivitis looks entirely gone, you should continue the ointment or drops for three additional days. Stopping eye medication too early may allow a resurgence of the infection and make it harder to eliminate the next time.

Can the conjunctivitis recur?

With some non-infectious causes, if the underlying cause is not removed the conjunctivitis will recur. This is especially likely when the cause is allergy. As long as the pet is exposed to the substance it is allergic to, medication will be needed to keep inflammation under control. If the symptoms resolve while your dog is receiving eye medication but recur within a few days once you stop, allergy may be the culprit. If this is the case, you may need to continue regular administration of an eye medication containing steroid throughout your pet's allergy season. Oral allergy medications don't seem to help much for conjunctivitis.

Note: Steroids decrease healing of corneal ulcers. If your dog has a scratch, ulcer or injury to the cornea a medication containing a steroid can cause the problem to become much worse. Do not apply a steroid ointment or drop for a new eye problem that hasn't been diagnosed.

Quick and Easy Training Plan for Administering Eye Drops

Teach Your Dog to Receive Eye Drops Even if you haven't ever had to place eye drops in your dog's eyes, training husbandry behaviors like this can really pay off in the future. Teaching your dog to tolerate poking, prodding, receiving injections, syringes of solutions in the mouth and drops in the eyes and ears can help prevent stress and heart ache in the future. Here is an article by a world renowned animal behaviorist, with a quick and easy training plan. Dr. Sophia Yin

brings to light just how easy it is to reduce and even prevent stress and fear when you suddenly find yourself having to administer eye drops to your dog.

How to Get Eye Drops in the Eye (Instead of on the Face) – A Quick Training Program If you wear contacts, eye drops are a fact of life that you quickly get used to. But when it's your pet that needs the daily drops, the situation can quickly turn sour. You might start out with a dog you can strong-arm into accepting treatment... but you're likely to end up with a dog who heads south as soon as she sees the bottle or whenever she suspects you're trying to trick her. Here's one way to train dogs to hold still and enjoy receiving drops in their eyes. If your dog already associates the bottle with the drops that she dislikes, we'll have to start by first training her to associate the bottle with good things.

Step 1: Place something tasty on the eye drop bottle. You can use canned cheese, peanut butter, cream cheese, or some other pasty substance that will stick to the bottle. Let the dog lick the treat off. It's best to spread it flat and thin, so the dog has to lick repeatedly to get it off instead of sucking up the entire treat with one quick roll of the tongue.

Repeat Step 1: As she's finishing the treat, remove the bottle out of her reach. The goal is that when she sees you holding the bottle, she waits expectantly to get a treat. Her eyes should see the bottle while her mind is thinking, "Yum, treat." When you present the bottle to her, she should immediately lick the treat.

Step 2: Once she's consistently happy to see the eye drop bottle, practice pairing food with handling her face in whichever way you will end up needing to handle her to administer the eye drops. Here, I touch the side of the dog's face while she gets treats. Start out by handling her just enough that she still feels comfortable enough to keep eating. Then systematically handle her in ways that are increasingly closer to your ultimate goal. As she's finishing the treat, and before she gets tired of you touching her face, remove the bottle and see if she looks like she still wants more before you repeat this step. (Note: you can give treats independently of the bottle too).

Step 3: In this step, I've moved on to actually parting the dog's eyelids while letting her lick the treat off the bottle. When giving eye drops you may need to part the lids pretty widely. Notice that this dog only cares about the treat. She's making a good association between the handling and the food.

Step 4a, Method 1: At some point, if you are doing this by yourself, you will need a few seconds where you are positioning the bottle and the dog is not getting the treat. Work toward this by quickly moving the bottle to the medication position. Before the dog starts to wriggle, put the treat-smear bottle back in front of her mouth. Keep switching back and forth, systematically increasing the length of time that you hold the bottle above her eye. When you're consistently able to hold the bottle above her head for 3-5 seconds you can administer drops and then hurry and follow with treats.

Step 4b, Method 2: Alternatively, you can have an assistant give the treats. Once the dog is eating the treat, you can administer the meds.

Different positioning. You may also opt to train the dog for different positioning. For instance, here I hold her muzzle while giving her treats. As with method 1 for giving the drops, I then practice holding the bottle right over her eye, but will bring it back to treat position before she starts to struggle.

Training dogs to accept hands balancing on their faces. I tend to need to balance my hand on the dog for stability when giving eye drops. To train the dog for this, you can give treats while

you practice balancing your hand on her muzzle, head, or side of the face. Give long semi-moist treats and holding them in such a way that she can only nibble off a little bit at a time as she works her way up the treat. This process may seem like it requires a lot of steps, but if you progress in a systematic manner, for some dogs you may get through in just minutes. Other dogs will need several five- to ten-minute sessions a day for a week or two. You can also work towards the goal carrying out the entire procedure and only giving a reward at the end. In any case if you follow the process detailed here, your dog will appreciate the time and learn to love a procedure she once hated.

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