

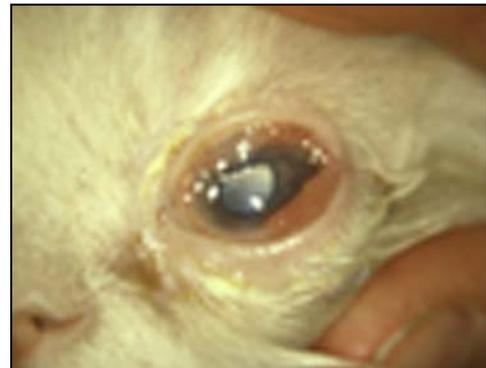
Conjunctivitis in Cats

What is conjunctivitis?

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. The cat has a third eyelid, or nictitating membrane, in the inner corner of the eye. This is also covered by conjunctiva. In normal cats the conjunctiva of the eyelids is not readily visible and has a pale, pink color. When conjunctivitis occurs, *the* conjunctival membranes become swollen and bulge from the lids, take on a deep red color and the tears may become cloudy. Conjunctivitis can affect one (unilateral) or both (bilateral) eyes.

What are the clinical signs of conjunctivitis?

If you see excessive tearing or watering from one or both eyes, cloudy, yellow or even greenish discharge, and prominent or reddened conjunctival membranes, your cat may have conjunctivitis and should be examined immediately by your veterinarian. Your cat may squint or keep its eyes closed, either because of **photophobia**, a reluctance to be in bright light, or may rub at its eyes or paw at its face. In severe cases, the third eyelid or conjunctival tissue may be so swollen that it may partially or fully cover the eye.



Picture courtesy of
Ontario Veterinary College

How is conjunctivitis diagnosed?

A diagnosis of simple conjunctivitis is made after the veterinarian rules 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. Because there are many causes of conjunctivitis that do not directly involve the eye, a specific diagnosis may involve blood tests.

What are some 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.

Infectious Causes of Conjunctivitis

Infectious agents such as bacteria, viruses, and fungi are the most common causes of conjunctivitis in cats. In many cases virus infections such as Feline Viral Rhinotracheitis (FVR), also known as feline herpesvirus, or Feline Calicivirus are the initial cause of inflammation.

Primary viral infections are often complicated by secondary bacterial infections with a variety of bacteria including *Streptococci* and *Staphylococci*. Two special organisms, *Chlamydia* and *Mycoplasma* are also capable of initiating primary conjunctivitis.

Non-infectious Causes of Conjunctivitis

Breeds such as Persians, Himalayans and other long-haired breeds may be born with a turning in of the eyelids called **entropion**. Entropion causes corneal irritation when the eyelashes constantly rub against the eyeball. 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 believed to be a common cause of conjunctivitis because the allergens are difficult to pinpoint and avoid

How is conjunctivitis diagnosed?

Since secondary bacterial infections cause many of the symptoms in most cases of conjunctivitis, and because there is a need to reduce the immediate pain and inflammation, treatment is usually begun without a specific diagnosis. Most viral infections tend to improve without treatment within five to fourteen days. In cases that are not improving or where there are other animals at risk, further testing will be performed to reach a definitive diagnosis.

Specific tests will be performed, based on the medical history and results of an examination of the eye and surrounding tissues. Your veterinarian may measure the tear production from each eye and the intraocular pressure, or pressure within the eyes. The cornea may be stained to look for underlying corneal injuries or ulcers, and conjunctival scrapings or biopsy samples may be obtained and sent to a diagnostic laboratory for specialized testing. The nasolacrimal ducts, or tear ducts, may be flushed to ensure proper drainage. Blood tests may be performed to determine if the conjunctivitis is related to a systemic condition.

How is conjunctivitis treated?

The general approach to non-specific conjunctivitis is to use ophthalmic preparations containing antibiotics to control the bacteria and anti-inflammatory drugs 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 pills.

When a specific diagnosis has been reached, one of the following treatment regimens may be used:

1. Herpesvirus conjunctivitis
 - Although these infections are usually mild and self-limiting, the infected cat remains a carrier of the virus, and may have intermittent relapses.
 - No treatment may be required for mild cases
 - Antiviral medications are used in severe or poorly responsive cases
 - L-lysine may be used to promote healing in chronic cats
 - Interferon-alfa may be used as an immune stimulant. (\$\$\$!)
 - Topical, symptomatic treatment with dilute Betadine eye washes and artificial tears as needed

2. Chlamydia or mycoplasma conjunctivitis
 - Tetracycline ophthalmic ointment
 - Azithromycin oral antibiotic

3. Eosinophilic or Allergic conjunctivitis
 - Topical corticosteroid ointment or drops

How do I administer eye medications?

Regular and frequent treatment is essential in successfully treating conjunctivitis. Most ophthalmic drops need to be administered three to six times a day at the start of treatment. Ointments may require less frequent administration, but may be more difficult to administer. Two people may be necessary; one to hold the cat and the other to administer the eye medication, 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 each eye and then close the lids to smear the ointment across the eyeball. Liquid preparations can be applied directly onto the surface of the eye; one or two drops per eye are usually sufficient (more than 2 drops will run off the eyeball and be wasted!). If you have any doubts as to how to give your cat's medication, please ask us to demonstrate the proper procedure for you.

When should I expect a response?

Normally you will see a rapid improvement after a few days. But even if the conjunctivitis has resolved, *do not* stop treatment until the end of the prescribed period. Stopping your cat's medication early may allow a resurgence of the infection and make it harder to eliminate the next time.

What is the prognosis for a cat diagnosed with conjunctivitis?

The prognosis depends on the specific diagnosis. With some non-infectious causes, if the underlying cause is not removed the conjunctivitis will recur. Some of the viruses that cause infectious conjunctivitis are incurable, and may persist in a hidden form, with flare-ups from time to time, especially during periods of stress or illness. The therapeutic goal for these patients is to minimize the frequency and severity of recurrences through optimum nutrition, appropriate vaccination against preventable causes of disease and medical management when indicated.

ADDITIONAL INSTRUCTIONS:

1. For eyes, 1-2 drops of dilute Betadine solution (available over the counter from your pharmacy) every 12 hours. Dilute solution to color of weak ice tea
2. For eyes, 1-2 drops of over-the-counter allergy eye drops with **pheniramine maleate** every 8-12 hours as needed
3. For eyes, any artificial tear solution (i. e. Alergan's Refresh Tears)
4. If sneezing occurs, 1-2 drops of Pediatric Afrin Nasal Spray or equivalent in each nostril every 12 hours. See DVM if not clearing in 48hrs