## Conjunctivitis

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Conjunctivitis is an inflammation or infection of the conjunctiva, the thin transparent layer of tissue that lines the inner surface of the eyelid and covers the white part of the eye. Conjunctivitis, often called "pink eye," is a common eye disease, especially in children. It may affect one or both eyes. Some forms of conjunctivitis can be highly contagious and easily spread in schools and at home. While conjunctivitis is usually a minor eye infection, sometimes it can develop into a more serious problem.

Conjunctivitis may be caused by a viral or bacterial infection. It can also occur due to an allergic reaction to irritants in the air like pollen and smoke, chlorine in swimming pools, and ingredients in cosmetics or other products that come in contact with the eyes. Sexually transmitted diseases like Chlamydia and gonorrhea are less common causes of conjunctivitis.

People with conjunctivitis may experience the following symptoms:

- A gritty feeling in one or both eyes
- Itching or burning sensation in one or both eyes
- Excessive tearing
- Discharge coming from one or both eyes
- Swollen eyelids
- Pink discoloration to the whites of one or both eyes
- Increased sensitivity to light

## What causes conjunctivitis?



The cause of conjunctivitis varies depending on the offending agent. There are three main categories of conjunctivitis: allergic, infectious and chemical:

## **Allergic Conjunctivitis**

- Allergic Conjunctivitis occurs more commonly among people who already have seasonal allergies. At some point they come into contact with a substance that triggers an allergic reaction in their eyes.
- **Giant Papillary Conjunctivitis** is a type of allergic conjunctivitis caused by the chronic presence of a foreign body in the eye. This condition occurs predominantly with people who wear hard or rigid contact lenses, wear soft contact lenses that are not replaced frequently, have an exposed suture on the surface or the eye, or have a glass eye.

## **Infectious Conjunctivitis**

- Bacterial Conjunctivitis is an infection most often caused by staphylococcal or streptococcal bacteria from your own skin or respiratory system. Infection can also occur by transmittal from insects, physical contact with other people, poor hygiene (touching the eye with unclean hands), or by use of contaminated eye makeup and facial lotions.
- Viral Conjunctivitis is most commonly caused by contagious viruses associated with
  the common cold. The primary means of contracting this is through exposure to
  coughing or sneezing by persons with upper respiratory tract infections. It can also
  occur as the virus spreads along the body's own mucous membranes connecting
  lungs, throat, nose, tear ducts, and conjunctiva.
- Ophthalmia Neonatorum is a severe form of bacterial conjunctivitis that occurs in newborn babies. This is a serious condition that could lead to permanent eye damage unless it is treated immediately. Ophthalmia neonatorum occurs when an infant is exposed to Chlamydia or gonorrhea while passing through the birth canal.

# **Chemical Conjunctivitis**

Chemical Conjunctivitis can be caused by irritants like air pollution, chlorine in swimming pools, and exposure to noxious chemicals.

## How is conjunctivitis diagnosed?



Conjunctivitis can be diagnosed through a comprehensive eye examination. Testing, with special emphasis on evaluation of the conjunctiva and surrounding tissues, may include:

- **Patient history** to determine the symptoms the patient is experiencing, when the symptoms began, and the presence of any general health or environmental conditions that may be contributing to the problem.
- Visual acuity measurements to determine the extent to which vision may be affected.
- Evaluation of the conjunctiva and external eye tissue using bright light and magnification.
- Evaluation of the inner structures of the eye to ensure that no other tissues are affected by the condition.
- Supplemental testing may include taking cultures or smears of conjunctival tissue, particularly in cases of chronic conjunctivitis or when the condition is not responding to treatment.

Using the information obtained from these tests, your optometrist can determine if you have conjunctivitis and advise you on treatment options.

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## How is conjunctivitis treated?

Treatment of conjunctivitis is directed at three main goals:

- 1. To increase patient comfort.
- 2. To reduce or lessen the course of the infection or inflammation.
- 3. To prevent the spread of the infection in contagious forms of conjunctivitis.

The appropriate treatment for conjunctivitis depends on its cause:

- Allergic conjunctivitis—The first step should be to remove or avoid the irritant, if
  possible. Cool compresses and artificial tears sometimes relieve discomfort in mild
  cases. In more severe cases, non-steroidal anti-inflammatory medications and
  antihistamines may be prescribed. Cases of persistent allergic conjunctivitis may also
  require topical steroid eye drops.
- **Bacterial conjunctivitis**—This type of conjunctivitis is usually treated with antibiotic eye drops or ointments. Improvement can occur after three or four days of treatment, but the entire course of antibiotics needs to be used to prevent recurrence.
- Viral Conjunctivitis—There are no available drops or ointments to eradicate the virus for this type of conjunctivitis. Antibiotics will not cure a viral infection. Like a common cold, the virus just has to run its course, which may take up to two or three weeks in some cases. The symptoms can often be relieved with cool compresses and artificial tear solutions. For the worst cases, topical steroid drops may be prescribed to reduce the discomfort from inflammation, but do not shorten the course of the infection. Some doctors may perform an ophthalmic iodine eye wash in the office in hopes of shortening the course of the infection. This newer treatment has not been well studied yet, therefore no conclusive evidence of the success exists.
- Chemical Conjunctivitis—Treatment for chemical conjunctivitis requires careful flushing of the eyes with saline and may require topical steroids. The more acute chemical injuries are medical emergencies, particularly alkali burns, which can lead to severe scarring, intraocular damage or even loss of the eye.

### **Contact Lens Wearers**



Contact lens wearers may need to discontinue wearing their lenses while the condition is active. Your doctor can advise you on the need for temporary restrictions on contact lens wear.

If the conjunctivitis developed due to wearing contact lenses, your eye doctor may recommend that you switch to a different type of contact lens or disinfection solution. Your optometrist might need to alter your contact lense prescription to a type of lens that you replace more frequently to prevent the conjunctivitis from recurring.

### **Self-care**

Practicing good hygiene is the best way to control the spread of conjunctivitis. Once an infection has been diagnosed, follow these steps:

- Don't touch your eyes with your hands.
- Wash your hands thoroughly and frequently.
- Change your towel and washcloth daily, and don't share them with others.
- Discard eye cosmetics, particularly mascara.
- Don't use anyone else's eye cosmetics or personal eye-care items.
- Follow your eye doctor's instructions on proper contact lens care.

You can soothe the discomfort of viral or bacterial conjunctivitis by applying warm compresses to your affected eye or eyes. To make a compress, soak a clean cloth in warm water and wring it out before applying it gently to your closed eyelids.

For allergic conjunctivitis, avoid rubbing your eyes. Instead of warm compresses, use cool compresses to soothe your eyes. Over the counter eye drops are available. Antihistamine eye drops should help to alleviate the symptoms, and lubricating eye drops help to rinse the allergen off of the surface of the eye.

See your doctor of optometry when you experience conjunctivitis to help diagnose the cause and the proper course of action.