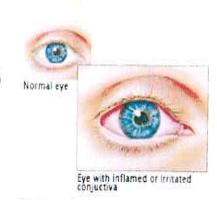


# Signs & Symptoms

It can be hard to determine the exact cause of every case of conjunctivitis. This is because some signs and symptoms of the condition may be similar depending on the cause.

#### Symptoms of conjunctivitis can include

- Pink or red color in the white of the eye(s) (often one eye for bacterial and often both eyes for viral or allergic conjunctivitis)
- Swelling of the conjunctiva (the thin layer that lines the white part of the eye and the inside of the eyelid) and/or eyelids
- Increased tearing
- Discharge of pus, especially yellow-green (more common in bacterial conjunctivitis)
- Itching, irritation, and/or burning
- Feeling like a foreign body is in the eye(s) or an urge to rub the eye(s)
- Crusting of eyelids or lashes sometimes occurs, especially in the morning
- Symptoms of a cold, flu, or other respiratory infection may also be present
- Sensitivity to bright light sometimes occurs
- Enlargement and/or tenderness, in some cases, of the lymph node in front of the ear. This
  enlargement may feel like a small lump when touched. (Lymph nodes act as filters in the body,
  collecting and destroying viruses and bacteria.)
- Symptoms of allergy, such as an itchy nose, sneezing, a scratchy throat, or asthma may be present in cases of allergic conjunctivitis
- Contact lenses that do not stay in place on the eye and/or feel uncomfortable due to bumps that
  may form under the eyelid



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### Diagnosis

#### On this Page

- Viral Conjunctivitis
- Bacterial Conjunctivitis
- Allergic Conjunctivitis

Conjunctivitis has many causes, but in most cases it results from infection with a virus or bacterium or from a reaction to an allergen. No matter the cause, conjunctivitis always involves inflammation of the thin layer that lines the inside of the eyelid and covers the white part of the eye (the conjunctiva). But conjunctivitis also has other signs and symptoms, which may vary, depending on the cause. These signs and symptoms can be used to diagnose the type of conjunctivitis.

#### Viral Conjunctivitis

Viral conjunctivitis can often be diagnosed from signs and symptoms, and patient history. For example, if conjunctivitis accompanies a common cold or respiratory tract infection and if discharge from the eye is watery rather than thick, the cause is likely a virus. The history the patient gives (for example, having contact with someone with conjunctivitis or having allergies) and examination of the eye can also help a doctor make a firm diagnosis.



Laboratory tests are not usually needed to diagnose viral conjunctivitis. However, testing may be done if a more severe form of viral conjunctivitis is suspected, such as conjunctivitis caused by herpes simplex virus or varicella-zoster virus. This testing is done using a sample of the discharge from an infected eye.

Depending on the cause of viral conjunctivitis, some patients may have additional symptoms or conditions, such as the following:

- Common cold, flu, or other respiratory infection conjunctivitis often occurs with respiratory infections; sometimes the lymph node near the front of the ear is enlarged and painful.
- Pharyngoconjunctivial fever conjunctivitis as well as a fever and sore throat can occur with this syndrome, which is most commonly caused by infection with adenovirus serotypes 3, 4, and 7.
- Epidemic keratoconjunctivitis this is a more severe type of conjunctivitis; it is commonly
  caused by infection with adenovirus serotypes 8, 19, and 37.
- Acute hemorrhagic conjunctivitis this type of conjunctivitis is sometimes accompanied with nervous system involvement; it is associated with enterovirus 70 and coxsackievirus A24.
- Herpetic keratoconjunctivitis this type of conjunctivitis is associated with herpes simplex virus and blister-like lesions on the skin; it may affect only one eye.
- Rubella and rubeola (measles) conjunctivitis can occur with these viral rash illnesses, which
  are usually accompanied by rash, fever, and cough.

#### **Bacterial Conjunctivitis**

Bacterial conjunctivitis can usually be diagnosed by a doctor, nurse, or other healthcare provider from signs and symptoms and patient history. For example, if conjunctivitis occurs at the same time as an ear infection and if discharge from the eye is thick rather than watery, the cause may be a bacterium. Although not routinely done, your healthcare provider may obtain a sample of eye discharge from the conjunctiva for laboratory analysis to determine which form of infection you have and how best to treat it.

Acute bacterial conjunctivitis is the most common form of bacterial conjunctivitis in outpatient healthcare settings (Crounau, 2010). Depending on the cause of bacterial conjunctivitis, some patients may have additional symptoms or conditions, such as the following:

- Hyperacute bacterial conjunctivitis this is a more severe type of conjunctivitis that occurs suddenly, develops rapidly and is accompanied by a lot of yellow-green discharge that returns even after being wiped away from the eye(s). This is most often caused by Neisseria gonorrhoeae in sexually active adults. This infection can lead to vision loss if not treated promptly by an eye doctor (Crounau, 2010).
- Chronic bacterial conjunctivitis often develops along with another inflammatory condition (blepharitis) that promotes bacteria growing in the eyelid; flaky debris and warmth along the lid may also be present. Signs and symptoms last for at least 4 weeks with frequent episodes (Høvding, 2008). People with this condition should see an eye doctor.
- Inclusion (chlamydial) conjunctivitis more common in newborns; includes redness of the eye
   (s), swelling of the eyelids, and discharge of pus, usually 5 to 12 days after birth.

- Gonococcal conjunctivitis more common in newborns; includes red eyes, thick pus in the eyes, and swelling of the eyelids, usually 2 to 4 days after birth.
- Trachoma chronic follicular conjunctivitis that leads to scarring in the conjunctiva and cornea;
   repeat infections occur in children less than 10 years of age and is common in developing countries.

### Allergic Conjunctivitis

Allergic conjunctivitis can be diagnosed from , and patient history; for example, allergic conjunctivitis may occur seasonally when pollen counts are high, and it can cause the patient's eyes to itch intensely. This type of conjunctivitis is a common occurrence in people who have other signs of allergic disease, such as hay fever, asthma, or eczema. Allergic conjunctivitis results from a person's reaction to substances they are allergic to, such as pollen, dust mites, animal dander, medications, cosmetics, and other allergy-provoking substances. The type of conjunctivitis that is related to contact lens wear is usually diagnosed by an eye doctor during an eye exam.



## Causes

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- Viral Conjunctivitis
- Bacterial Conjunctivitis
- Allergic Conjunctivitis

Conjunctivitis is a common eye condition worldwide. It causes inflammation (swelling) of the conjunctiva—the thin layer that lines the inside of the eyelid and covers the white part of the eye. Conjunctivitis is often called "pink eye" or "red eye" because it can cause the white of the eye to take on a pink or red color.

The most common causes of conjunctivitis are viruses, bacteria, and allergens. But there are other causes, including chemicals, fungi, certain diseases, and <u>contact lens wear</u> (<a href="http://www.cdc.gov/contactlenses/index.html">http://www.cdc.gov/contactlenses/index.html</a>) (especially wearing lenses overnight). The conjunctiva can also become irritated by foreign bodies in the eye and by indoor and outdoor air pollution caused, for example, by chemical vapors, fumes, smoke, or dust.

## Viral Conjunctivitis

Viral conjunctivitis is caused by infection of the eye with a virus. Viral conjunctivitis

- Can be caused by a number of different viruses, many of which may be associated with an upper respiratory tract infection, cold, or sore throat.
- Usually begins in one eye and may progress to the second eye within days.
- Spreads easily and rapidly between people and can result in epidemics.



 Is typically mild and usually clears up in 7-14 days without treatment and resolves without any long-term effects. In some cases, it can take 2-3 weeks or more for viral conjunctivitis to completely clear up, depending on whether complications develop.

## **Bacterial Conjunctivitis**

Bacterial conjunctivitis is caused by infection of the eye with certain bacteria. Bacterial conjunctivitis

- Usually begins in one eye and may sometimes progress to the second eye.
- Is a leading cause of children being absent from day care or school (Patel, 2007).
- Cases are typically mild and can last as few as 2-3 days or up to 2-3 weeks. Many cases improve
  in 2-5 days without treatment (Sheikh, 2006). However, topical antibiotics are often prescribed
  to treat the infection.

## Allergic Conjunctivitis

Allergic conjunctivitis is caused by the body's reaction to certain substances to which it is allergic, such as pollen from trees, plants, grasses, and weeds; dust mites; molds; dander from animals; contact lenses and lens solution; and cosmetics. Allergic conjunctivitis

- Occurs more frequently among people with other allergic conditions, such as hay fever, asthma, and eczema.
- Usually occurs in both eyes.
- Can occur seasonally, when allergens such as pollen counts are high.
- Can occur year-round due to indoor allergens, such as dust mites and animal dander.
- May result, in some people, from exposure to certain drugs and cosmetics.
- Clears up once the allergen or irritant is removed or after treatment with allergy medications.
- · Can occur when contact lenses are worn too long or not cleaned properly.



#### Treatment

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- Viral Conjunctivitis
- Bacterial Conjunctivitis
- Allergic Conjunctivitis
- When to Seek Medical Care

The treatment for conjunctivitis depends on the cause. It is not always necessary to see a healthcare provider for conjunctivitis. But, as noted below, there are times when it is important to seek medical care.

## Viral Conjunctivitis

Most cases of viral conjunctivitis are mild. The infection will usually clear up in 7–14 days without treatment and without any long-term consequences. In some cases, viral conjunctivitis can take 2-3 weeks or more to clear up, especially if complications arise.

Artificial tears and cold packs may be used to relieve the dryness and inflammation (swelling) caused by conjunctivitis. (Artificial tears can be bought in stores without a doctor's prescription.) Antiviral medication can be prescribed by a physician to treat more serious forms of conjunctivitis, such as those caused by herpes simplex virus or varicella-zoster virus. Antibiotics will not improve viral conjunctivitis—these drugs are not effective against viruses.

# Bacterial Conjunctivitis

Antibiotics can help shorten the illness and reduce the spread of infection to others. Many topical antibiotics (drugs given as eye drops or ointment) are effective for treating bacterial conjunctivitis. Your healthcare provider may prescribe antibiotic eye drops or ointment as conjunctivitis treatment, and the infection should clear within several days. Artificial tears and cold compresses may be used to relieve some of the dryness and inflammation.



However, mild bacterial conjunctivitis may get better without antibiotic treatment and without any severe complications. The use of antibiotics is associated with increased antibiotic resistance and increased costs, and should be a shared decision between the doctor and the patient (Crounau, 2010).

# Allergic Conjunctivitis

Conjunctivitis caused by an allergy usually improves when the allergen (such as pollen or animal dander) is removed. Allergy medications and certain eye drops (topical antihistamine and vasoconstrictors), including some prescription eye drops, can also provide relief from allergic conjunctivitis. For conjunctivitis caused by contact lenses, an eye doctor may recommend removing lenses and keeping them out for a period of time. In some cases, a combination of drugs may be needed to improve symptoms. Your doctor can help if you have conjunctivitis caused by an allergy.

#### When to Seek Medical Care

A healthcare provider should be seen if

- Conjunctivitis is accompanied by moderate to severe pain in the eye(s).
- Conjunctivitis is accompanied by vision problems, such as sensitivity to light or blurred vision, that does not improve when any discharge that is present is wiped from the eye(s).
- Conjunctivitis is accompanied by intense redness in the eye(s).
- Conjunctivitis symptoms become worse or persist when a patient is suspected of having a severe
  form of viral conjunctivitis—for example, a type caused by herpes simplex virus or varicellazoster virus (the cause of chickenpox and shingles).
- Conjunctivitis occurs in a patient who is immunocompromised (has a weakened immune system)
   from HIV infection, cancer treatment, or other medical conditions or treatments.
- Bacterial conjunctivitis is being treated with antibiotics and does not begin to improve after 24 hours of treatment.