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## Conjunctivitis or ( Pink Eyes)

### 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 can differ depending on the cause, and other signs and symptoms are similar no matter what caused the conjunctivitis.

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

Sometimes there are situations that can help your healthcare provider determine what is causing the conjunctivitis. For example, if a person with allergies develops conjunctivitis when the pollen count increases in the spring, this would be a sign that he or she might have allergic conjunctivitis. And if someone develops conjunctivitis during an outbreak of viral conjunctivitis, this would be a sign that he or she might have viral conjunctivitis.

### Diagnosis

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 (swelling) 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.
- Pharyngoconjunctival 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 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.
- Newcastle disease – conjunctivitis can accompany this disease, which usually occurs among poultry workers and veterinarians, not the general population; Newcastle disease is caused by Newcastle disease virus.



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## **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 accompanies 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.

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 develops rapidly and is accompanied by a lot of yellow-green discharge that returns even after being wiped away from the eye(s).
- 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.
- 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 signs and symptoms, 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.

## **Prevention**

Conjunctivitis caused by allergens is not contagious; however, viral and bacterial conjunctivitis can be easily spread from person to person and can cause epidemics. You can greatly reduce the risk of getting conjunctivitis or of passing it on to someone else by following some simple good hygiene steps.

If you have infectious (viral or bacterial) conjunctivitis, you can help limit its spread to other people by following these steps:

- Wash your hands often with soap and warm water. If soap and water are not available, use an alcohol-based hand rub
- Avoid touching or rubbing your eyes.
- Wash any discharge from around the eyes several times a day. Hands should be washed first and then a clean washcloth or fresh cotton ball or tissue can be used to cleanse the eye area. Throw away cotton balls or tissues after use; if a washcloth is used, it should be washed with hot water and detergent. Wash your hands with soap and warm water when done.
- Wash hands after applying eye drops or ointment.
- Do not use the same eye drop dispenser/bottle for infected and non-infected eyes—even for the same person.
- Wash pillowcases, sheets, washcloths, and towels in hot water and detergent; hands should be washed after handling such items.
- Avoid sharing articles like towels, blankets, and pillowcases.
- Clean eyeglasses, being careful not to contaminate items (like towels) that might be shared by other people.
- Do not share eye makeup, face make-up, make-up brushes, contact lenses and containers, or eyeglasses.
- Do not use swimming pools.

If you are around someone with infectious (viral or bacterial) conjunctivitis, you can reduce your risk of infection by following these steps:

- Wash your hands often with soap and warm water. If soap and warm water are not available, use an alcohol-based hand rub
- Wash your hands after contact with an infected person or items he or she uses; for example, wash your hands after applying eye drops or ointment to an infected person's eye(s) or after putting their bed linens in the washing machine.
- Avoid touching or rubbing your eyes.
- Do not share items used by an infected person; for example, do not share pillows, washcloths, towels, eye drops, eye or face makeup, and eyeglasses.
- Clean and handle your contact lenses as instructed by your eye doctor.

In addition, if you have infectious conjunctivitis, there are steps you can take to avoid re-infection once the infection goes away:



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- Throw away and replace any eye or face makeup you used while infected.
- Replace contact lens solutions that you used while your eyes were infected.
- Throw away disposable contact lenses and cases that were used while your eyes were infected.
- Clean extended wear lenses as directed.
- Clean eyeglasses and cases that were used while infected.

### **Treatment**

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. Days 3-5 of infection are often the worst, but 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**

Mild bacterial conjunctivitis may get better without antibiotic treatment. However, 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.

#### **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. 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 varicella-zoster 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.

Source: Caring for Your School-Age Child: Ages 5 to 12 (Copyright © 2004 American Academy of Pediatrics)