

For Clinicians

Español: [Para médicos](#)

Conjunctivitis can result from many causes, including viruses, bacteria, allergens, contact lens use (especially the extended-wear type), chemicals, fungi, and certain diseases.

Infected children should be allowed to remain in school once any indicated therapy is implemented, except when viral or bacterial conjunctivitis is accompanied by systemic signs of illness. However, infected students should refrain from attending school if their behavior is such that close contact with other students cannot be avoided. [1]

Viral Conjunctivitis

Viral conjunctivitis can be caused by the following viruses, with adenoviruses being one of the most common causes:

- Adenoviruses
- Rubella virus
- Rubeola (measles) virus
- Herpesviruses, including
 - Herpes simplex virus
 - Varicella-zoster virus, which also causes chickenpox and shingles
 - Epstein-Barr virus, which also causes infectious mononucleosis (mono)
- Picornaviruses, such as coxsackievirus A24 and enterovirus 70 (which has caused outbreaks in other countries)

Viral conjunctivitis is highly contagious. Most viruses that cause conjunctivitis are spread through hand-to-eye contact by hands or objects that are contaminated with the infectious virus. Hands can become contaminated by having contact with infectious tears, eye discharge, fecal matter, or respiratory discharges. Viral conjunctivitis can also spread by large respiratory tract droplets.

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
- Pharyngoconjunctival fever – a syndrome that can produce conjunctivitis as well as a fever and sore throat, and is most commonly caused by infection with adenovirus serotypes 3, 4, and 7
- Epidemic keratoconjunctivitis – a more severe type of conjunctivitis, commonly caused by infection with adenovirus serotypes 8, 19, and 37
- Acute hemorrhagic conjunctivitis – a type of conjunctivitis that is often associated with large epidemics worldwide, especially in the tropical and subtropical regions. The viruses most commonly associated with it include enterovirus 70, coxsackievirus A24, and adenoviruses.
- Herpetic keratoconjunctivitis – a type of conjunctivitis 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

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Bacterial Conjunctivitis

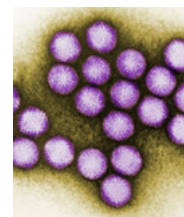
Acute bacterial conjunctivitis is the most common form of bacterial conjunctivitis in outpatient healthcare settings. [2] The bacteria that most commonly cause bacterial conjunctivitis in the United States are

- *Staphylococcus aureus*
- *Haemophilus influenzae*
- *Streptococcus pneumoniae*
- *Moraxella catarrhalis*

Bacterial conjunctivitis is highly contagious. Most bacteria that cause conjunctivitis are spread through direct hand-to-eye contact from contaminated hands. People can get conjunctivitis just by touching or using something that an infected person has touched or used. It can also spread by large respiratory tract droplets. Bacterial conjunctivitis is less common in children older than 5 years of age.

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Colorized transmission electron micrograph of adenovirus.

(CDC Public Health Image Library (<http://phil.cdc.gov/phil/details.asp?pid=10010>))



This scanning electron micrograph depicts numerous clumps of methicillin-resistant *Staphylococcus aureus* bacteria, commonly referred to by the acronym MRSA.

(CDC Public Health Image Library (<http://phil.cdc.gov/phil/details.asp?pid=10048>))

Topical antimicrobial therapy is indicated for bacterial conjunctivitis, which is usually distinguished by a purulent exudate.

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

- Hyperacute bacterial conjunctivitis – a more severe type of conjunctivitis that occurs suddenly, develops rapidly and is accompanied by a large amount of yellow-green discharge that returns even after being wiped away from the eye(s). It 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. [2]
- Chronic bacterial conjunctivitis – often develops along with another inflammatory condition (blepharitis) that promotes bacteria growth in the eyelid; flaky debris and warmth along the lid may also be present. Symptoms last for at least 4 weeks with frequent episodes. People with this condition should see an eye doctor. [3]
- 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 – a chronic follicular conjunctivitis caused by *Chlamydia trachomatis* that leads to scarring in the conjunctiva and cornea and is the leading global cause of preventable blindness of infectious origin. It is transmitted from person to person, through shared items or by flies. Repeat infections occur in children less than 10 years of age, and it is common in developing countries. [Learn more about trachoma and other hygiene-related diseases.](#)

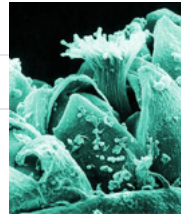
Allergic Conjunctivitis

Allergic conjunctivitis is common in people who have other signs of allergic disease, such as hay fever, asthma, and eczema. It 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
- Animal dander
- Molds

- Contact lenses and lens solution
- Cosmetics

Related Pages



Scanning electron micrograph of an *Ambrosia trifida* plant, more commonly known as ragweed.

(CDC Public Health Image Library (<http://phil.cdc.gov/phil/details.asp?pid=243>))

Causes of Conjunctivitis

Causes of Newborn Conjunctivitis

Footnotes

¹ American Academy of Pediatrics. *Recommendations for care of children in special circumstances*. In: Kimberlin DW, Brady MT, Jackson MA, Long SS, eds. Red Book: 2015 Report of the Committee on Infectious Diseases. 30th ed. Elk Grove Village, IL: *American Academy of Pediatrics*; 2015.

² Crounau H, Kankanala RR, Mauger T. [Diagnosis and management of red eye in primary care \(http://www.aafp.org/afp/2010/0115/p137.html\)](http://www.aafp.org/afp/2010/0115/p137.html). *Am Fam Physician*. 2010;81:137-44.

³ Høvdig G. [Acute bacterial conjunctivitis \(http://www.ncbi.nlm.nih.gov/pubmed/17970823\)](http://www.ncbi.nlm.nih.gov/pubmed/17970823). *Acta Ophthalmol*. 2008;86(1):5-17.

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