

# Acute Infectious Conjunctivitis



## Causative agent

Conjunctivitis is an inflammation of the conjunctiva, the protective membrane that lines the inner eyelids and covers the outer surface of the eyeballs. Conjunctivitis takes various forms, e.g. infectious and allergic. The most common form is acute infectious conjunctivitis (red-eye syndrome) which is mostly caused by bacteria and viruses. Bacterial conjunctivitis can be caused by a variety of bacteria, with *Haemophilus influenzae* and *Streptococcus pneumoniae* being the commonest. *Chlamydia trachomatis* (*C. trachomatis*) may also be a cause for bacterial conjunctivitis in both neonates and adults. Viral conjunctivitis is often associated with an upper respiratory tract infection, and is often caused by adenoviruses and enteroviruses.

## Clinical features

Clinically, bacterial and viral conjunctivitis are very similar. Both eyes are often affected though the symptoms usually start in one eye. The discharge is thick, whitish or yellowish in bacterial conjunctivitis, and watery in viral conjunctivitis. Other symptoms include tearing, foreign body sensation, itchiness, pain, swelling and redness of the eyes, matted eyelids after sleep, and sensitivity to light. Vision is not affected unless scarring of the cornea occurs after the infection.

The clinical course of acute infectious conjunctivitis is usually mild and self-limiting. Recovery usually occurs in 1 to 2 weeks if it is properly treated. Infection can occur at all ages, but children under 5 are most frequently affected.

## Mode of transmission

An infected person can spread conjunctivitis as long as there is an active infection. Transmission occurs through direct contact with discharge from the eyes or upper respiratory tracts of infected persons, or indirectly through contaminated fingers, clothing, and use of contaminated articles, such as shared eye makeup applicators, towels and topical eye medications. In addition, swimmers can contract conjunctivitis when swimming in contaminated water. *C. trachomatis* can spread via sexual contact, and also from mothers to newborns during delivery, causing conjunctivitis.

## Incubation period

The incubation period is usually 1 - 3 days after exposure for bacterial conjunctivitis; 1 - 12 days for viral conjunctivitis. In chlamydial conjunctivitis, the incubation period ranges from 3 days to several weeks.

## Management

Infected individuals should seek medical treatment immediately and follow doctor's advice in administering medication and taking rest. Application of antibiotic ointments or eye drops to the eyes is generally effective in treating bacterial conjunctivitis. Oral antibiotics are needed to treat chlamydial ocular infections. There is no specific treatment for viral conjunctivitis.



## Prevention

Acute conjunctivitis is a highly infectious disease, capable of spreading widely in the community. The most effective way to prevent acute conjunctivitis is to maintain good personal hygiene.

- Perform hand hygiene frequently, especially before touching one's mouth, nose or eyes; before eating; after using the toilet; after touching public installations such as handrails or doorknobs; or when hands are contaminated by respiratory secretion after coughing or sneezing.
- Wash hands with liquid soap and water, and rub for at least 20 seconds. Then rinse with water and dry with a disposable paper towel or hand dryer. If hand washing facilities are not available, or when hands are not visibly soiled, hand hygiene with 70 to 80% alcohol-based handrub is an effective alternative.
- Avoid hand-to-eye contact. If such contact is unavoidable, perform hand hygiene before and after contact with the eyes.
- Do not share personal items, such as towels, pillows, eye droppers, eye medicines, eye or face makeup, makeup brushes, contact lenses and other items that may come into contact with eyes.
- Infected individuals should refrain from work, school or swimming until their symptoms have resolved in order to prevent spread of infection.

