

### **What is conjunctivitis?**

The white of the eye and the inner surface of the lids are covered by a transparent membrane called the conjunctiva. Conjunctivitis is inflammation of the conjunctiva.

There are two main types of conjunctivitis allergic and infective. Allergic conjunctivitis happens when the immune system of your body attacks something that is not really harmful, such as pollen or make-up, and causes inflammation. Infective conjunctivitis is caused by viruses or bacteria infecting your eye. The immune system fights it, causing swelling. Infection is the most common cause of conjunctivitis. Conjunctivitis caused by an infection usually clears up on its own after a few days.

Conjunctivitis is something called pink eye because the blood vessels in the eye are irritated and become enlarged, making the eye look red or pink

### **What Causes Conjunctivitis**

Conjunctivitis is most commonly caused by infection. Almost any germ, whether a bacterium or a virus, may be responsible. Some are more dangerous than others. The common cold can cause conjunctivitis, spreading from the mouth and nose to the eyes, but this is usually far less severe than infection of the eyes with Chlamydia or herpes. However, conjunctivitis caused by the common cold is very infectious and can spread rapidly between people. Other bacteria that commonly cause conjunctivitis include staphylococci, streptococci and haemophilus bacteria.

The most common cause of allergic conjunctivitis is hypersensitivity to pollen (hay fever). The pollen irritates the eye and can cause the conjunctiva to swell. Occasionally this can lead to extreme swelling and bulging of the eye membrane.

Conjunctivitis can also result from a wide range of other causes, including:

- Chemicals, dusts, liquids, gases and other environmental contaminants, which can cause an allergic reaction – one of the most common causes is the chemicals found in swimming pools,
- Radiation – especially the ultraviolet in sunlight,
- Too much wind blowing on your eyes, and
- Irritation from eye make-up or even shampoo

If you wear contact lenses these can cause conjunctivitis if they become contaminated with bacteria or, rarely, tiny creatures called amoeba. This should not happen if your lenses are stored and handled correctly. It is particularly common if you wear occasional decorative contact lenses, as you may not have been properly trained in hygiene and handling of your lenses.

### **Types of infective conjunctivitis:**

#### **Common infective conjunctivitis**

Most cases of infective conjunctivitis are caused by common bacteria and viruses – often the same ones that cause coughs and colds. Conjunctivitis commonly develops when you have a cold or cough. Sometimes it occurs alone. In the vast majority of cases, infective conjunctivitis is not serious and clears within a few days without leaving any permanent damage to the eye.

## **More serious types of infective conjunctivitis**

Rarely, infective conjunctivitis is more serious. For example:

- Conjunctivitis may develop in addition to keratitis (infection of the cornea). This is most commonly due to an infection with the herpes virus (the cold sore virus). If you have keratitis you are likely to get eye pain rather than just surface irritation, and often blurring of vision.
- A virus called adenovirus can sometimes cause a serious and prolonged conjunctivitis.
- Conjunctivitis in newborn babies by germs called Chlamydia or Gonorrhoea. These are serious sexually transmitted infections and need urgent treatment if they affect the eye of babies. Note: this is different to the very common 'sticky eye' of newborn babies caused by a blocked tear duct. A blocked tear duct with sticky eye does not cause redness and inflammation of the conjunctivitis due to Chlamydia.
- When conjunctivitis is just part of a more serious infection of deeper structures of the eye which may be indicated by pain in the eye, reduced vision, or swelling around the eye.

## **What are the symptoms of common infective conjunctivitis?**

- One eye may be infected, but it usually spreads to both eyes. The 'whites' of the eyes look inflamed, and red or pink.
- The eyes may feel gritty and water more than usual.
- Some mild soreness may develop, but it is not usually very painful.
- The eyelids may become swollen, and often stuck together with gluey material ('discharge') after a sleep.
- Vision is not normally affected. You may get some blurring of vision due to discharge at the front of the eye. However, this clears with blinking.

## **Treatment of Conjunctivitis**

Mild infections may not need treating and will clear up on their own. Conjunctivitis caused by a virus usually clears up on its own, but your eyes may be made more comfortable using an ointment.

Our tears contain chemicals that will fight infections, but if your symptoms get worse or do not improve, treatment should be considered. It can also be difficult to tell the difference between allergic and infective conjunctivitis (which is contagious). If you are not sure, visit your Doctor.

Cool water may help to soothe the redness and itching of your eyes. Wash your eyes with tepid (lukewarm) water, using a clean piece of cotton wool or gauze for each wipe. Clean your eyes from the bridge of your nose to the outer eye. Do not share towels or flannels until the infection has cleared. If you have to wipe your eyes, use tissues and throw them away immediately afterwards. Do not share your eye drops, and throw the bottle away when you are finished.

Do not wear contact lenses when you have conjunctivitis. If your conjunctivitis was caused by irritation due to wearing contact lenses, your eye specialist may recommend changing the type of lenses you use (for example from hard to soft). You should usually stop wearing lenses for a short period while your eyes heal, and your eye specialist should go over the proper cleaning and handling methods with you, before you start wearing them again.

Antihistamine drugs can be used to reduce inflammation when conjunctivitis is caused by an allergic reaction. Antihistamines can also treat related symptoms such as sneezing and rashes. Alternatively, or in addition to other treatments, drops such as sodium cromoglicate can be used to prevent the allergic reaction.

Infective conjunctivitis caused by bacteria is usually treated with antibiotic drops (Chloramphenicol 0.5%) or ointment (Chloramphenicol 0.1%), in the affected eye. These are usually effective within a day or two, and research indicates that more than 90% of people recover within a week when using antibiotic drops or ointments. Note that not all antibiotic eye drops are suitable for use during pregnancy. Do not wear contact lenses while having antibiotic eye treatments. Antibiotics are most effective when a swab has been taken to identify the bacteria and thus the medicines best suited to treat it.

In rare cases, when the cause has been proved to be an allergy, steroid eye drops may be given by an eye specialist. They must not be given in cases of viral or bacterial infections, because they can make the condition worse. Steroid eye drops are only given as a short term treatment and you will need to be carefully monitored for side effects, such as raised pressure inside the eye.

Therefore, see a doctor if any of the following occur.

- Symptoms do not settle within a few days.
- Symptoms change (for example, light starts to hurt your eyes).
- Pain becomes worse (mild soreness rather than pain is usual with common conjunctivitis).
- Spots or blisters develop on the skin next to the eye.
- Your vision becomes affected.

### **Complications of Conjunctivitis**

Viral conjunctivitis can spread to the cornea, the white of the eye. This is called keratitis and can be serious because some viruses, such as the herpes virus, can cause blindness.

Conjunctivitis can also be a symptom of other infections such as measles or leptospirosis, a bacterial infection.

If you have severe allergic conjunctivitis you may be referred to an Ophthalmologist.

### **Prevention of Conjunctivitis**

- Avoid rubbing your eyes with unwashed hands,
- If you have conjunctivitis, wash your hands after touching your eye,
- Do not share towels or flannels with a person who has conjunctivitis,
- Do not share things like pencils, pens, glass, cup or anything touched by a person suffering from conjunctivitis.
- Always follow strict hygiene measures with contact lenses, and make sure you know how to store them properly – your optician will be able to give you all the information you require, but it is important to seek advice even if you only use lenses for cosmetic reasons (for example, to change your eye colour),
- If you have allergic conjunctivitis, try to prevent future attacks by avoiding the cause of the allergy – alternatively, your Doctor may be able to prescribe antihistamines to reduce the over-reaction of your immune system, and
- When you have a cold or flu, always wash your hands after blowing your nose, and avoid touching your eyes, to prevent cross-infection.