

Allergic Conjunctivitis

Frequently Asked Questions

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Q 1: What is conjunctivitis?

Conjunctivitis is an inflammation (redness and swelling) of the conjunctiva of the eye. The conjunctiva is the layer of tissue which lines the front part of the eyeball (the white part of the eye), and the inside of the eyelids. The conjunctiva, cornea, eyelids, and tears work together to form a protective barrier for the eye, shielding it from irritants such as smoke, bacteria and allergens in the air. It also protects the eye from the damaging effects of the sun and wind.

Sometimes these irritants can cause the conjunctiva to become inflamed which can be quite painful. They may also cause the eye to become very watery as it tries to flush irritants away from the surface. Conjunctivitis can be caused by a bacterial or viral infection, allergy, physical or chemical irritation. Treatment depends on identifying the cause and how severe the symptoms are.

Q 2: What causes red eyes?

An examination of the eye may be done by a doctor or healthcare professional to identify the cause/s of red eyes:

- Thick, yellow green discharge from the eye usually indicates that there is a bacterial infection.
- Clear discharge from the eye may indicate either a viral infection or an allergic cause.
- Red eyes that burn or feel “tired” and are watering may be caused by dry eye.
- Vision loss, pain, and/or sensitivity to bright light (photophobia), suggest more serious conditions which should be investigated by an eye specialist (ophthalmologist).
- A gritty sensation is common in conjunctivitis. It is important to rule out the presence of a foreign body such as dust, wood chip/s or insect/s particularly if only one eye is affected.

Q 3: What is allergic conjunctivitis?

Allergic conjunctivitis is caused by an allergic reaction.

Unlike conjunctivitis that is caused by bacterial infection, allergic conjunctivitis is not contagious, so it cannot be transferred from one person to another.

Q 4: What are the symptoms of allergic conjunctivitis?

Typical signs and symptoms of allergic conjunctivitis include:

- Redness in both eyes.
- Itching and burning of both the eye and surrounding tissues.
- Watery discharge, often accompanied by acute discomfort in bright light (photophobia).
- Swollen eyelids which may become ‘heavy’ or ‘droopy’. In some severe cases, the eyelids are so swollen that they cannot completely open.

- Swollen conjunctiva which may look light purple and affect vision. Blurred vision or any change in the appearance of the cornea (clear part of the eye that covers the pupil) requires urgent referral to an eye specialist. Speak to your doctor or optometrist for a referral.

Allergic conjunctivitis symptoms may be:

- Perennial (all year round) due to constant exposure to dust mites, animal dander, indoor and outdoor mould spores and, in some cases, foods or food additives.
- Seasonal (certain times of the year) due to airborne allergens such as mould spores and pollen from grasses, trees, and weeds. The amount of airborne pollen varies from day to day and is dependent on the weather. People with pollen allergies often find their symptoms improve in wet weather and become worse on hot windy days or after thunderstorms.

If allergic conjunctivitis is suspected, allergy testing can help identify the allergen responsible, or “trigger”. For more information about allergy testing visit www.allergy.org.au/patients/allergy-testing

Q 5: How is allergic conjunctivitis treated?

Avoiding or minimising exposure to known allergens is an important first step in managing allergic conjunctivitis. If the allergen is known, steps can be taken to minimise exposure to it or, in some cases, get rid of it completely. For example, someone with an allergy to:

- House dust mites may find that minimisation measures such as removing carpet, using dust mite covers for pillows and mattresses, and washing bedding in hot water are enough to reduce symptoms.
- Animal dander may find the best option is to remove the animal from the house altogether, particularly if symptoms are severe.

Mild to moderate symptoms of allergic conjunctivitis usually respond well to simple home treatments such as bathing eyes with cold water, ice packs and cold water compresses. Non-medicated eye drops can also help to lubricate the eye and gently flush allergens from the surface. More severe symptoms will usually require treatment with medication.

Medical treatments available for allergic conjunctivitis include the following options:

Topical medications (eye drops) treat the symptoms of allergic conjunctivitis directly. Small drops of medication are delivered straight to the surface of the eye and are available in many different types.

- Antihistamine eye drops - effective but should not be used for longer than 6 weeks without medical advice.
- Antihistamine eye drops containing a vasoconstrictor - minimise itch and remove redness by narrowing the swollen blood vessels in the eye. They should not be used for longer than 14 days without medical advice.
- Mast cell stabiliser eye drops - best used to prevent symptoms from occurring as they can take three to seven days to work. These can be used as long as necessary.
- Mast cell stabiliser eye drops with antihistamines - fast acting, effective and generally well tolerated.
- Steroid eye drops - effective in relieving symptoms quickly, but are associated with cataract formation, glaucoma and bacterial and viral infections of the cornea and conjunctiva. They should only be used under medical supervision as a short-term treatment and should never be used in the presence of herpes infections.

Antihistamine tablets or syrups help some people when it is difficult to avoid the allergen. Some side effects may include dryness of the eyes, nose, and mouth, and blurred vision. Antihistamines are usually contraindicated for people with glaucoma, advice should be sought from an eye specialist.

Allergen immunotherapy for specific allergens may benefit people with persistent, severe allergic conjunctivitis. However, relief of allergic conjunctivitis symptoms will not happen straight away.

Q 6: What other issues related to allergy can develop in the cornea?

The cornea is a clear area at the front of the eye that is mainly responsible for filtering light and focus. There are very few blood vessels in the cornea and because of this, it is not usually involved in an allergic reaction. The epithelial cells in the cornea can become inflamed in a condition known as epithelial keratitis (inflammation of the cornea). This usually happens because of exposure to a chemical or drug (medication).

Conditions involving the cornea, which are associated with allergy, are:

Keratoconus

- An inherited condition that results in a cone shaped thinning of the cornea.
- Sometimes associated with atopic dermatitis (eczema).
- May lead to changes in vision and often requires the use of corrective lenses or glasses. Contact lenses can be worn but can cause further irritation of the inflamed conjunctiva.
- It is important to consult an eye specialist if this condition is suspected.

Atopic cataracts

- A condition that causes the cornea to become cloudy, resulting in blurred vision.
- Often associated with long term steroid use, it is thought that 8-10% of people with a severe form of atopic dermatitis are at risk of developing this condition.
- May develop in children and young adults, even without steroid therapy.

Atopic keratoconjunctivitis

- Inflammation of the conjunctiva and cornea, most often occurring with atopic dermatitis (eczema).
- Conjunctiva may be swollen and red with a clear or pus containing discharge.
- Skin of the eyelids usually appears red, scaly, and weeping.
- May cause severe photophobia, making it difficult for people to open their eyes in bright light.
- Secondary bacterial infection with *Staphylococcus aureus* is common and may cause infection of the eyelash follicles.
- The condition can persist for many years.
- Conjunctival scarring may occur if the persistent condition is not treated properly.

Vernal keratoconjunctivitis

- Results in small, raised lumps on the inside of the upper eyelid, and a stringy, mucus discharge.
- Usually affects both eyes and is severe, occurring seasonally and mainly in children.
- More often seen in warmer or more temperate climates than in cold climates.
- Frequently associated with allergic rhinitis, atopic dermatitis, or asthma.
- May be associated with a single allergen but more usually with multiple sensitivities.
- Usually starts in late childhood and is more common in boys than girls. The prevalence equals in the twenties and is rarely seen after the age of thirty.
- Usually lasts between five to ten years.
- Treatment consists of intermittent short courses of topical (eye drops) or systemic (oral tablets) steroids, with ongoing topical cromolyn or antihistamine preparations.
- Sleeping in an air-conditioned room, ice packs and cold compresses can help with symptom relief.

Q 7: Can eye symptoms be due to contact allergy?

Yes. Eye symptoms can happen after a person has come into contact and reacted with an allergen.

- Many cosmetics (nail polish in particular) can cause contact allergy of the eyelids due to frequent, often unintentional, touching of the face and eyes.
- Medications that come into direct contact with the eye including antibiotic eye drops (particularly neomycin), and eye drops containing the preservative thiomersal can cause contact allergy. Usually there is an initial improvement of the condition once the eye drops are used, however, symptoms eventually return, gradually get worse and then only improve once the eye drops are discontinued.
- Some plants including grevillea 'Robyn Gordon', African violets, bulbs such as hyacinth, daffodils and tulips, and the Rhus tree are known to cause contact allergy. Since the Rhus tree has been declared a noxious weed the number of cases of this serious contact allergy has declined.

It can be difficult to know what has caused the reaction unless allergy testing (usually through a patch test) has been done. For more information visit www.allergy.org.au/patients/allergy-testing

Treatment for eye symptoms caused by contact allergy involves bathing the eyes with cooled boiled water, which will ease the discomfort as the condition improves.

Q 8: Can contact lenses cause symptoms?

Yes. People who wear contact lenses can develop a condition known as either giant papillary conjunctivitis (GPC) or giant follicular conjunctivitis (GFC). These conditions are similar in appearance to vernal keratoconjunctivitis.

GPC and GFC usually occurs in people who wear soft contact lenses, but occasionally it is seen in people who wear hard lenses. This may be due to the material of the lens itself, or the cleansing solution used as many of these contain a chemical called thiomersal.

Sometimes the condition improves if the person simply reduces the amount of time they wear their contact lenses. It may also help to change to a lens made of a different material, soaking the lens in sterile water after cleansing with an antibacterial solution, or changing to a different brand of cleansing solution.

Q 9: What happens to the eye during anaphylaxis?

Anaphylaxis is the most severe form of allergic reaction and should always be treated as a medical emergency. It usually occurs after exposure to an allergen, usually a type of food, insect, or medicine. Symptoms of anaphylaxis can include swelling, itching and redness of the conjunctiva and soft tissues around the eyes. It is important for all people who are at risk of anaphylaxis to be referred to a clinical immunology/ allergy specialist.

Swelling and redness of the eye can sometimes happen after eating foods containing monosodium glutamate (MSG) or the preservative sodium metabisulfite. This reaction is sometimes mistaken for an allergy however it is not a true allergic reaction. Symptoms will be less severe than those seen in a true allergy.

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For more information go to www.allergy.org.au/patients/allergic-rhinitis-hay-fever-and-sinusitis and www.allergy.org.au/patients/allergy-treatments

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