

# Managing allergic conjunctivitis in the pharmacy

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## Introduction

The conjunctiva is a layer of tissue that lines the sclera (the white part of the eye) and the insides of the eyelids, but not the cornea (the clear part of the eye). Allergic conjunctivitis is an allergic reaction of the conjunctiva that occurs when a person's immune system is sensitised and overreacts to an allergen (something that is usually harmless to someone else). Allergic conjunctivitis is not contagious and cannot be transferred from one person to another.

## What is allergic conjunctivitis?

Over-stimulation of the immune system results in inflammation of the conjunctiva. There are several types of allergic conjunctivitis.

- Acute allergic conjunctivitis has a sudden onset and occurs when a person encounters a known allergen such as cat dander. Symptoms can be intense with severe itching but usually resolve within 24 hours after the allergen has been removed.
- Seasonal allergic conjunctivitis usually presents with milder but more persistent symptoms with a more gradual onset of symptoms. Symptoms often occur due to seasonal allergens such as tree, grass and weed pollens.
- Perennial allergic conjunctivitis is a mild chronic conjunctivitis mainly related to year-round (usually indoor) allergens such as dust mites, moulds and animal dander.

## Signs and symptoms of allergic conjunctivitis

Allergic conjunctivitis usually affects both eyes, although one eye may be affected more than the other. The following are typical signs and symptoms of allergic conjunctivitis and may vary from mild to very severe:

- Intense itching and burning of the eye and surrounding tissue
- Redness of the eyes
- Swelling of the eyelids

- Tearing, usually a watery discharge that can be stringy at times
- Mild crusting of the eye upon waking
- Photophobia (sensitivity to light)

Many patients also suffer from other symptoms of allergy such as allergic rhinitis (runny nose and sneezing) or allergic skin conditions such as eczema.

Allergic conjunctivitis is not usually associated with eye pain and patients reporting eye pain need to be referred to a doctor as soon as possible.

## Causes of allergic conjunctivitis

Allergy symptoms may wax and wane and vary depending on exposure, the season or the weather. Hot windy days may worsen symptoms while symptoms may be less severe on rainy days. The cause of allergic conjunctivitis depends on the susceptibility of a person, but can include any of the following:

- Pollen (trees, grass, weeds, flowers)
- Dust mites
- Animal dander
- Mould spores
- Cosmetics (make up), nail polish or perfume
- Eye drops or ointments, especially those containing neomycin or preservatives such as thiomersal
- Cigarette smoke, diesel exhaust, household detergents
- Occasionally food or food additives

## Basic precautions and eye care to alleviate symptoms

Identifying and avoiding the allergen whenever possible is the best way to avoid or reduce symptoms. The following may assist in reducing symptoms:

- Minimise house dust mite exposure by removing carpets in the bedrooms, using barrier encasings for pillows and mattresses, and washing bedding in hot water.
- Where pets are the cause, keep them outdoors and especially out of the bedroom. Wash and brush pets regularly and wash hands immediately after patting them.
- Minimise exposure to pollen by staying indoors when pollen counts are high, using air conditioning and keeping windows to cars and homes closed during peak pollen seasons. Pollen counts are also highest around mid-morning and early evening.
- Wear glasses or sunglasses when outdoors to minimise

the amount of pollen that gets into the eyes.

- Bathe and change clothes after being outside.
- Vacuum often using a vacuum cleaner with a HEPA filter and dust with a clean damp cloth.
- Clean floors using a damp cloth or mop rather than dry sweeping.
- To limit exposure to moulds, keep humidity in the home low. Clean humid areas such as the bathroom and kitchen regularly with a detergent and a 5% bleach solution.
- Limit exposure to harsh chemicals, dyes and perfumes.

Patients should avoid rubbing their eyes as that will worsen the condition. Application of a cool compress or rinsing the eye with refrigerated natural tears helps to relieve itching. Washing or rinsing of the face and hair also assists in removing allergens.

## Treatment

Artificial tears help to dilute and flush out allergens that may be on the surface of the eye. They serve a barrier function and moisten the eye, providing comfort. Artificial tears may be applied as often as necessary. Preservative-free eye drops are recommended for patients who are allergic to preservatives or suffer from severe dry eyes. Lubricant ointments provide longer lasting relief but can cause temporary blurring of the eye and patients often prefer to use the ointment only at bedtime.

Eye drops containing decongestants such as naphazoline, oxymetazoline, and phenylephrine may be used for short-term relief of redness and are also available in combination with an antihistamine to help relieve itching. Decongestant eye drops should not be used for longer than two or three days and are contraindicated in patients with glaucoma.

Antihistamine eye drops such as antazoline, emedastine and levocabastine, and antihistamines with mast cell stabilising properties (e.g. olopatadine, epinastine or ketotifen) can reduce itching, redness and swelling. Although they can provide quick relief, they are most effective when used daily and it may take up to two weeks to experience maximum symptom relief. Eye drops containing mast cell stabilisers such as lodoximide and sodium chromoglycate reach full efficacy five to 14 days after starting treatment and are not recommended for treatment of acute symptoms.

Oral antihistamines such as fexofenadine, cetirizine, levocetirizine, desloratadine or loratadine can be mildly effective in treating allergic eye conditions and are especially useful if the patient suffers from other allergy-related conditions such as allergic rhinitis. They are more effective when taken preventatively but may also be used to treat symptoms after they have started, although full benefits may

only take effect after several days of treatment.

It may be necessary to try different treatment options and combinations in order to find the most effective treatment option, as a product that works well for one patient may not be effective for the next.

## Conclusion

Although the symptoms of allergic conjunctivitis are usually mild, it can become severe and debilitating. Avoidance of allergens is the best way to avoid symptoms but is not always possible since allergens such as pollens are often present in the air. Symptoms may be alleviated by using artificial tear solutions. Several formulations of eye drops containing antihistamines and decongestants are also available and some patients may benefit from oral antihistamines. Optimal treatment may require several trials of different treatment options.

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