

## What is an allergic conjunctivitis?

Sometimes your eyes may become red, watery, and itchy due to exposure to airborne substances such as pollen or mold spores. This condition is known as **allergic conjunctivitis**—an **inflammation of the conjunctiva** caused by an allergic reaction.

The **conjunctiva** is the thin, transparent membrane that covers the white part of the eyeball and lines the inside of the eyelids. It is particularly sensitive to allergens, especially during **hay fever season**. Allergic conjunctivitis often coexists with **allergic rhinitis**, as both are triggered by similar allergens and are connected anatomically through the **lacrimal ducts**.

### Mechanism of Allergic Conjunctivitis

The same allergens that trigger allergic rhinitis—such as **pollen, dust, molds, and pet dander**—also contribute to the development of allergic conjunctivitis. These allergens activate mast cells, leading to the release of histamine and other inflammatory mediators, resulting in **redness, itching, tearing, and burning**.

### Types of Allergic Conjunctivitis

There are two main types:

#### 1. Acute Allergic Conjunctivitis

- Sudden onset
- Red, watery, itchy eyes
- Typically occurs during specific allergic seasons
- Symptoms last for a short period

#### 2. Chronic Allergic Conjunctivitis

- Persistent, less intense symptoms
- Triggered by allergens such as **dust mites** and **animal dander**
- Causes **mild itching**, burning, and **light sensitivity**

### Subtypes of Allergic Conjunctivitis

#### 1. Seasonal Allergic Conjunctivitis (SAC)

2. **Perennial Allergic Conjunctivitis (PAC)**
3. **Vernal Keratoconjunctivitis (VKC)**
4. **Atopic Keratoconjunctivitis (AKC)**
5. **Giant Papillary Conjunctivitis (GPC)**

## Symptoms

- **Itchy, watery, red eyes**
- **Burning sensation**
- **Swollen eyelids**, especially upon waking
- **Light sensitivity**
- In VKC, **giant papillae** may form on the inner eyelids

## Diagnosis

- Primarily based on **history and clinical examination**
- Testing for **specific Immunoglobulin E (IgE)** in tears may be done but is rarely required
- **Allergen challenge tests** are used in rare cases

## Treatment

### First-Line

- **Topical antihistamines** and **mast cell stabilizers** (e.g., *sodium cromoglicate*, *nedocromil*)
- **Lodoxamide**: effective mast cell stabilizer for eye symptoms

### Second-Line

- **Oral antihistamines** for more systemic symptoms
- **Topical corticosteroids** (only under ophthalmologist supervision due to risk of **glaucoma** and **cataracts**)
- **Short-course oral steroids** for severe cases (e.g., during exam periods)

## Other Options

- **NSAIDs** (e.g., *flurbiprofen*, *diclofenac*)
- **Topical ciclosporin**
- **Immunotherapy** (injections or sublingual); less effective for vernal conjunctivitis

## Prevention

- **Avoid known allergens:** pollen, dust, pet dander
- **Maintain a clean environment**
- Use **air purifiers** and keep **windows closed** during high pollen seasons

## Bacterial Conjunctivitis

**Bacterial conjunctivitis** is caused by infection of the conjunctiva with bacteria. It typically results from **poor hygiene, contaminated hands, or contact with infected individuals.**

### Common Bacteria

- *Staphylococcus aureus*
- *Streptococcus pneumoniae*
- *Haemophilus influenzae*
- *Pseudomonas aeruginosa*

In **newborns**, consider *Chlamydia trachomatis* or *Neisseria gonorrhoeae*. In such cases, **avoid topical treatment**, collect swabs, and refer to a **paediatrician**.

## Symptoms

- **Red eyes**
- **Thick, mucopurulent discharge**
- **Crusting of eyelids**
- Often **self-limiting**, improving in **2–5 days**

## Antibiotic Management

### First-Line Treatment

- **Chloramphenicol 0.5% eye drops**
  - Adults and children >2 years: 1–2 drops every 2 hours (first 24 hrs), then every 4 hrs
  - May be combined with **chloramphenicol ointment at night**
  - Continue for **48 hours after symptoms clear**

### Alternative

- **Fusidic acid eye gel**
  - Adults and children: 1 drop **twice daily**
  - Continue for **48 hours post-symptom resolution**