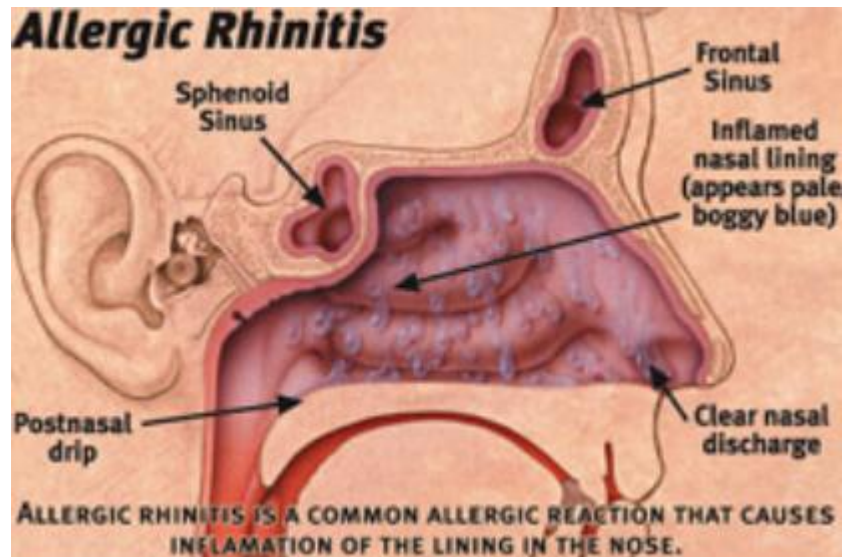


ALLERGIC RHINITIS

Rhinitis refers to inflammation of the nasal passages. This inflammation can cause a variety of symptoms, including sneezing, itching, nasal congestion, runny nose, and post-nasal drip (the sensation that mucus is draining from the sinuses down the back of the throat).

Brief episodes of rhinitis are usually caused by respiratory tract infections with viruses (eg, the common cold). Chronic rhinitis is usually caused by allergies, but it can also occur from overuse of certain drugs, some medical conditions, and other unidentifiable factors.



CAUSES

Allergic rhinitis is caused by a nasal reaction to small airborne particles called allergens (substances that provoke an allergic reaction). In some people, these particles also cause reactions in the lungs (asthma) and eyes (allergic conjunctivitis).

The allergic reaction is characterized by activation of two types of inflammatory cells, called mast cells and basophils. These cells produce inflammatory substances, such as histamine, which cause fluid to build up in the nasal tissues (congestion), itching, sneezing, and runny nose.

Seasonal versus perennial allergic rhinitis — Allergic rhinitis can be seasonal (occurring during specific seasons) or perennial (occurring year round). The allergens that most commonly cause **seasonal allergic rhinitis** include pollens from trees, grasses, and weeds, as well as spores from fungi and molds. The allergens that most commonly cause **perennial allergic rhinitis** are dust mites, cockroaches, animal dander, and fungi or molds.

ALLERGIC RHINITIS SYMPTOMS

Although the term "rhinitis" refers only to the nasal symptoms, many patients also experience problems with their eyes, throat, and ears.

- Nose: watery nasal discharge, blocked nasal passages, sneezing, nasal itching, post-nasal drip, loss of taste, facial pressure or pain.
- Eyes: itchy, red eyes, feeling of grittiness in the eyes, swelling and blueness of the skin below the eyes (called allergic shiners).
- Throat and ears: sore throat, hoarse voice, congestion or popping of the ears, itching of the throat or ears.
- Sleep: mouth breathing, frequent awakening, daytime fatigue, difficulty performing work.

TREATMENT

The management of allergic rhinitis consists of the following 3 major treatment strategies:

- Environmental control measures and allergen avoidance: These include keeping exposure to allergens such as pollen, dust mites, and mold to a minimum
- Pharmacologic management: Patients are often successfully treated with oral antihistamines, decongestants, or both; regular use of an intranasal steroid spray may be more appropriate for patients with chronic symptoms
- Immunotherapy: This treatment may be considered more strongly with severe disease, poor response to other management options, and the presence of comorbid conditions or complications; immunotherapy is often combined with pharmacotherapy and environmental control

| Topical nasal antihistamines | Oral antihistamines | Topical intranasal steroids |
|---|---|---|
| <ul style="list-style-type: none"> • They have superior effects to oral antihistamines for rhinitis symptoms, but do not reduce symptoms at other sites, eg the eyes • They are fast-acting (less than 15 minutes) so are a useful 'rescue' • Example Azelastine | <ul style="list-style-type: none"> • Regular therapy is more effective than 'as required' • Their effect is predominantly on neurally mediated symptoms of itch, sneeze and rhinorrhea • Loratadine, desloratadine, cetirizine, levocetirizine, fexofenadine | <ul style="list-style-type: none"> • They are effective for all symptoms of allergic perennial rhinitis, including nasal obstruction, itching, sneezing and watery rhinorrhoea. • Occasionally, intranasal steroids may be associated with unpleasant smell or taste or drying of the nasal lining or slight bleeding, which, if recurrent, may necessitate withdrawal of treatment. • Examples include fluticasone, mometasone, budesonide, flunisolide, triamcinolone, beclomethasone, fluticasone furoate, and ciclesonide. |

Nasal glucocorticoids — Nasal glucocorticoids (steroids) delivered by a nasal spray are the first-line treatment for the symptoms of allergic rhinitis.

Some symptom relief may occur on the first day of therapy with nasal glucocorticoids, although their maximal effectiveness may not be noticeable for days to weeks. For this reason, nasal glucocorticoids are most effective when used regularly.

Steroids taken as a pill or inhaled into the lungs can have side effects, especially when taken for long periods of time. However, the doses used in nasal steroids are low and are NOT associated with these side effects.

Allergy shots — Allergy shots, also known as allergen immunotherapy, are injections given to reduce a person's sensitivity to allergens. Allergy shots are only available for common allergens, such as pollens, cat and dog dander, dust mites, and molds. The process of immunotherapy

changes the person's immune response to the allergens over time. As a result, being exposed to the allergen causes fewer or even no symptoms.

Other treatments may be recommended for some people with allergic rhinitis:

- Cromolyn sodium prevents the symptoms of allergic rhinitis by interfering with the ability of allergy cells to release natural chemicals that cause inflammation. Sodium cromoglicate is less effective than antihistamines and corticosteroids and needs frequent use (up to five times daily), which may compromise compliance.
- The anticholinergic intranasal agent ipratropium bromide is effective in controlling watery rhinorrhoea, particularly if this is the dominant symptom.
- Leukotriene modifiers — Release of substances called leukotrienes may contribute to the symptoms of allergic rhinitis. Drugs that block the actions of leukotrienes, called leukotriene modifiers, can be very useful in patients with asthma and allergic rhinitis. They may be beneficial in patients with aspirin sensitivity.

Reference:

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