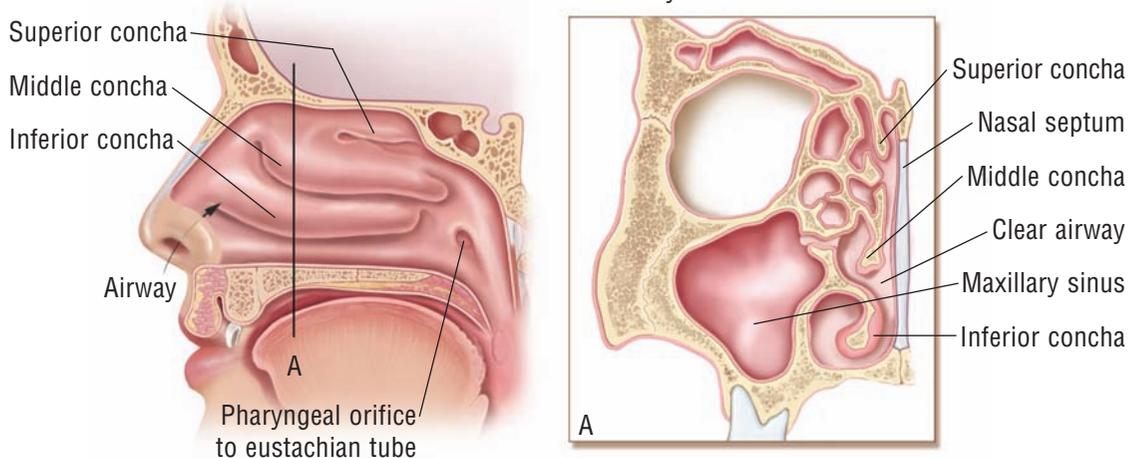
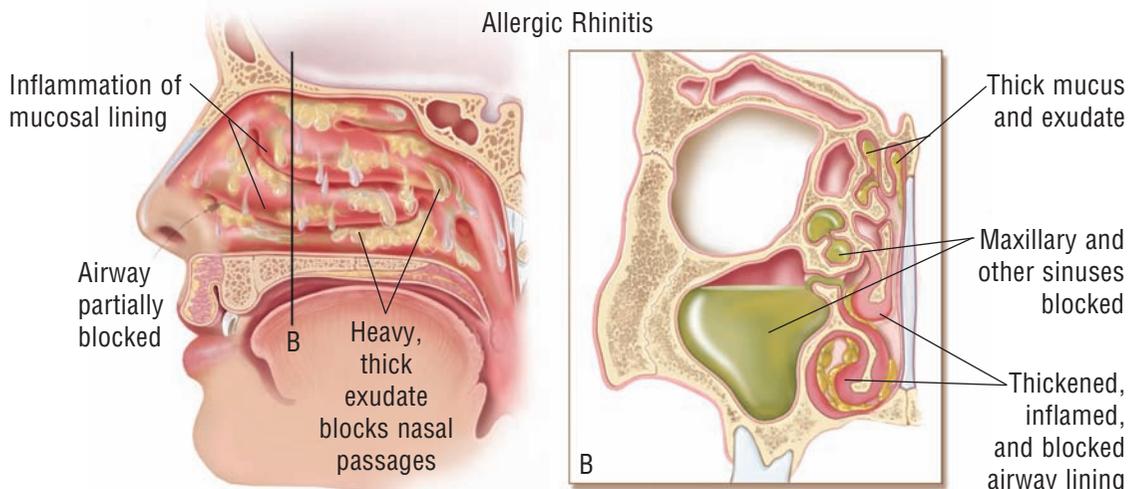


# Allergic Rhinitis

Normal Nasal Cavity



Allergic Rhinitis



Allergic rhinitis is a condition that develops when nasal membranes become irritated and inflamed due to an allergic response to an allergen. The cause of this response can be a seasonal allergen, such as plant pollen or mold spores, or a year-round allergen, including dust mites, animal dander, foods, smoke, or chemicals.

The allergic response to an allergen is the body's way of protecting itself against possible infections. The immune system in sensitized patients mistakes the allergen (pollen, mold, smoke, or chemical) for a harmful invader and responds by producing antibodies to fight off the allergen. The antibodies cause the release of histamine—a chemical that causes the symptoms of allergic rhinitis.

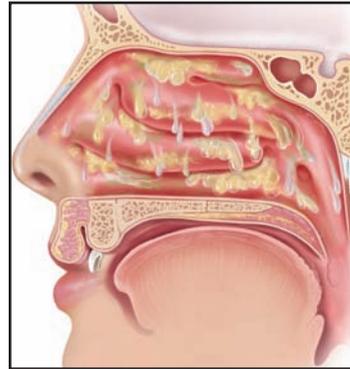
The most common symptoms of allergic rhinitis include runny nose, nasal congestion, and sneezing. Many people who suffer from allergic rhinitis also complain of coughing, itchy nose, problems with their sense of smell, sore throat, and watery eyes. The best treatment for this condition is avoiding the allergen, but this is often difficult and impractical. By interfering with the allergic reaction, antihistamines, nasal steroid sprays, and leukotriene inhibitors can help reduce the symptoms that result from the allergic response. Decongestants are also helpful to relieve the stuffiness associated with allergic rhinitis, but they can be used safely only for a short period of time.

Allergic rhinitis symptoms should be treated. If symptoms are not well controlled using avoidance techniques and medications, allergy testing and immunotherapy (allergy shots) are recommended to manage symptoms. Chronic allergic rhinitis can lead to sinus infections, which can cause the formation of scar tissue in the sinuses if left untreated.

## Year-Round or Seasonal Condition

Allergic rhinitis is a common complaint, affecting more than 50 million Americans. Many people who suffer from allergic rhinitis also suffer from asthma, chronic sinus infections, ear infections, or other problems related to these conditions.

**Seasonal and Perennial Rhinitis:** The two major types of allergic rhinitis are seasonal and perennial. Seasonal rhinitis (hay fever) occurs during a specific season, most commonly in the spring or fall. It is caused by seasonal outdoor allergens, such as mold or pollen from trees, grass, and flowers. People who suffer from indoor allergens such as dust mites or pet dander have perennial rhinitis, which causes symptoms year round.



*In the immune system's response to an allergen, antibodies are produced that lead to the release of histamine, a chemical that causes sneezing and congestion.*

**Allergy Testing:** When the symptoms of allergic rhinitis begin to interfere with everyday living, most patients visit their doctor for a diagnosis and treatment plan. A careful history of symptoms and their relation to the seasons, environment, time of day, or changes in diet can help determine the diagnosis of allergic rhinitis. Allergy testing is the most accurate method of determining which allergens are causing allergic rhinitis symptoms. The most common method of allergy testing is skin testing, which involves exposing the skin to (or injecting just beneath the skin) a variety of common allergen extracts to look for a reaction. After the results of the allergy skin tests are analyzed, your doctor may recommend immunotherapy (allergy shots). Immunotherapy comprises a series of allergen injections in gradually increasing doses. Exposing the body to the allergen in small doses on a regular schedule helps the immune system adjust slowly without causing serious allergic symptoms.

**Avoidance Measures:** The best treatment for allergic rhinitis is also the most difficult: avoiding the problem allergen. For many of these substances, avoidance can be almost impossible. However, exposure to many indoor allergens, such as dust mites and pet dander, can be reduced by taking a few simple steps, including enclosing mattresses and pillows in plastic, removing carpeting, washing linens weekly in hot water, and keeping pets away from sleeping areas. Patients with seasonal allergies can avoid exposure to pollen and mold by staying indoors and keeping windows closed during the problem seasons of spring and/or fall.

**Managing Symptoms:** If avoidance is not successful in controlling symptoms, allergy medications can be very effective. First-generation antihistamines such as diphenhydramine (Benadryl) have been used for many years to control allergy symptoms, but they can cause significant daytime drowsiness. This can affect a child's concentration in school or an adult's reaction time while operating machinery or driving a car. Newer, second-generation antihistamines such as loratadine, fexofenadine, and cetirizine do not cause drowsiness and are taken only once a day. One of these newer antihistamines, loratadine (Claritin), is now available without a prescription.

When antihistamines do not control symptoms, nasal steroid sprays can be used. Available by prescription only, these medications are effective when used once or twice a day to control the nasal symptoms of allergic rhinitis. Other anti-allergy medications used in controlling symptoms include oral leukotriene inhibitors, such as montelukast (Singulair), cromolyn sodium nasal spray, and ipratropium nasal spray. Oral or nasal decongestants are also useful for the short-term treatment of congestion, but nasal decongestants can be used only for up to three days. If continued beyond this period, nasal decongestant use can lead to rebound congestion, in which nasal congestion actually worsens instead of improves.