

Allergic rhinitis

Introduction

Allergic rhinitis is an allergic reaction that happens when your immune system overreacts to substances that you have inhaled, such as pollen. The two types of allergic rhinitis are seasonal allergic rhinitis (hay fever) and perennial allergic rhinitis, which occurs year-round. Hay fever is caused by outdoor allergens. Perennial allergic rhinitis is caused by indoor allergens such as dust mites, pet dander, and mold.

Symptoms of allergic rhinitis resemble a cold, but they are not caused by a virus the way a cold is. When you breathe in an allergen, your immune system springs into action. It releases substances known as IgEs into your nasal passages, along with inflammatory chemicals such as histamines. Your nose, sinuses, or eyes may become itchy and congested. Scientists aren't sure what causes your immune system to overreact to an allergen.

Allergic rhinitis is common, affecting about 1 in 5 Americans. Symptoms can be mild or severe. Many people who have allergic rhinitis also have asthma.

Signs and Symptoms

Allergic rhinitis can cause many symptoms, including the following:

- Stuffy, runny nose
- Sneezing
- Post-nasal drip
- Red, itchy, and watery eyes
- Swollen eyelids
- Itchy mouth, throat, ears, and face
- Sore throat
- Dry cough
- Headaches, facial pain or pressure
- Partial loss of hearing, smell, and taste
- Fatigue
- Dark circles under the eyes

Causes

The immune system is designed to fight harmful substances like bacteria and viruses. But when you have allergic rhinitis, your immune system overreacts to harmless substances -- like pollen, mold, and pet dander -- and launches an assault. This attack is called an allergic reaction.

Seasonal allergic rhinitis is triggered by pollen and mold spores. Sources include:

- Ragweed -- the most common seasonal allergen (fall)
- Grass pollen, in late spring and summer
- Tree pollen, in spring
- Fungus, mold growing on dead leaves, common in summer and fall

Year-round allergic rhinitis may be triggered by:

- Pet dander
- Dust and household mites
- Cockroaches
- Molds growing on wall paper, house plants, carpeting, and upholstery

Risk Factors

- Family history of allergies
- Having other allergies, such as food allergies or eczema
- Exposure to secondhand cigarette smoke
- Male gender

Prevention

The best way to control your symptoms is to avoid being exposed to the allergens that trigger your symptoms. These steps may help.

If you have hay fever, during days or seasons when airborne allergens are high:

- Stay indoors, and close the windows.
- Use an air conditioner in your home and car.
- Avoid using fans that draw in air from outdoors.
- Don't hang laundry outside to dry.
- Bathe or shower and change your clothes after being outside.
- Use a HEPA air filter in your bedroom.

If you have year-round allergies:

- Cover your pillows and mattress with dust mite covers.
- Remove carpet and install tile or hardwood floors. Use area rugs and wash them often in very hot water.
- Use blinds instead of curtains.
- Keep pets out of the bedroom.
- Use a HEPA filter on your vacuum.
- Use an air purifier.
- Wash bedding and toys such as stuffed animals in very hot water once a week.

Treatment

The best way to reduce symptoms is to prevent exposure to allergens.

Drugs such as antihistamines, decongestants, and nasal corticosteroid sprays may help control allergy symptoms. Some complementary and alternative therapies may also be used to treat the symptoms of allergic rhinitis.

Lifestyle

Although you can't stay indoors during all pollen and ragweed seasons, avoiding peak exposure times can help. Use your air conditioner in your home and car, and wear a dust mask when working in the yard.

For year-round allergies, you can take the following measures.

- Get rid of carpets and upholstered furniture.
- Wash bedding every week in very hot water.
- Keep stuffed toys out of the bedroom.
- Cover pillows and beds with allergen-proof covers.

To reduce mold:

- Clean moldy surfaces. Mold is often found in air conditioners, humidifiers, dehumidifiers, swamp coolers, and refrigerator drip pans.
- Use a dehumidifier indoors to reduce humidity to less than 50%.
- Fix water leaks and clean up water damage immediately.
- Make sure kitchens, bathrooms, and crawl spaces have good ventilation. Installing exhaust fans can help. Vent laundry dryers to the outside.
- Put flooring in crawl spaces.

Medications

Depending on the type of allergic rhinitis you have, your doctor may recommend medications. If you have perennial allergic rhinitis, you may need to take medication daily. If you have seasonal allergic rhinitis -- hay fever -- you may start medications a few weeks before the pollen season begins.

Antihistamines

Antihistamines are available in both oral and nasal spray forms, and as prescription drugs and over-the-counter remedies. Over-the-counter antihistamines are short-acting and can relieve mild-to-moderate symptoms. All work by blocking the release of histamine in your body.

- Over-the-counter antihistamines -- Include diphenhydramine (Benadryl), chlorpheniramine (Chlor-Trimeton), clemastine (Tavist). These older antihistamines can cause sleepiness. Loratadine (Claritin), cetirizine (Zyrtec), and fexofenadine (Allegra) do not cause as much drowsiness as older antihistamines.

- Prescription antihistamines -- These medications are longer-acting than over-the-counter antihistamines and are usually taken once a day. They include desloratadine (Clarinx).

Decongestants

Many over-the-counter and prescription decongestants are available in pill or nasal spray form. They are often used with antihistamines.

- Oral and nasal decongestants -- Include Sudafed, Actifed, Afrin, Neo-Synephrine. Some decongestants may contain pseudoephedrine, which can raise blood pressure. People with high blood pressure or enlarged prostate should not take drugs containing pseudoephedrine. Using nasal decongestant sprays for more than 3 days can cause "rebound congestion," which makes congestion worse. Avoid using nasal decongestant sprays for more than 3 days in a row, unless your doctor tells you to. Do not use them if you have emphysema or chronic bronchitis.

Nasal corticosteroids

These prescription sprays reduce inflammation of the nose and help relieve sneezing, itching, and runny nose. It may take a few days to a week to see improvement in symptoms.

- Beclomethasone (Beconase)
- Fluticasone (Flonase)
- Mometasone (Nasonex)
- Triacinelone (Nasacort)

Leukotriene modifiers

These prescription drugs block the production of leukotrienes, which are inflammatory chemicals produced by the body. They are taken once a day and do not cause sleepiness, and are also used to treat allergic asthma. Leukotriene modifiers include montelukast (Singulair) and zafirlukast (Accolate).

Cromolyn sodium (NasalCrom)

This over-the-counter nasal spray prevents the release of histamine and helps relieve swelling and runny nose. It works best when taken before symptoms start and may need to be used several times a day.

Nasal atropine

Ipratropium bromide (Atrovent) is a prescription nasal spray that can help relieve a very runny nose. People with glaucoma or an enlarged prostate should not use Atrovent.

Eye drops

- Antihistamine eye drops -- relieve both nasal and eye symptoms. Examples include azelastine, olopatadine, ketotifen, and levocabastine
- Decongestant eye drops -- such as phenylephrine and naphazoline

Eye drops may cause stinging or even headache.

Other Treatments

Allergy shots, or immunotherapy, are often recommended to anyone 7 years and older who has severe allergy symptoms or who also has asthma. Immunotherapy helps your immune system get used to allergens through regular injections of small doses of an allergen over a long period of time.

Nasal irrigation or nasal lavage can help reduce symptoms of allergic rhinitis, studies show. One study found that doing nasal irrigation three times a day reduced allergy symptoms after about 3 - 6 weeks. To do nasal irrigation, you can use a neti pot, bulb syringe, or squeeze bottle to flush out nasal passages with sterile salt water.

Other Considerations

Using some nasal decongestant sprays for long periods of time can make your allergic rhinitis worse. Call your health care provider if you develop severe symptoms, if treatment that helped before is no longer working, or if symptoms do not get better with treatment.

Pregnancy

If you are pregnant or breastfeeding, avoid the following:

- Decongestants, unless you ask your doctor
- Stinging nettle
- Chinese skullcap
- Butterbur (Petasites) extracts
- High doses of vitamin C
- *Tinospora cordifolia*
- *Astragalus*

Reviewed and modified from University of Iowa Healthcare by CARES Staff