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### **Tips to Remember: Rhinitis**

Do you have bouts of sneezing and itching, or a runny or stuffy nose that do not seem to go away? If so, you may have rhinitis.

Rhinitis is one of the most common illnesses in the United States, affecting more than 50 million people. It often coexists with other respiratory disorders, such as asthma. Rhinitis has a significant impact on the quality of life of those who suffer from it. In addition, it can contribute to other conditions such as sinus problems, ear problems, sleep problems, and learning problems. In patients with asthma, uncontrolled rhinitis seems to make asthma worse.

There are two general types of rhinitis:

#### **Allergic rhinitis**

Allergic rhinitis is caused by substances that we breathe called *allergens*. Allergens are usually harmless substances that can cause problems only in some people. These problems are caused because the immune system of people with allergic rhinitis mistakenly identifies these substances as intruders and generates a reaction against them. During this reaction, the immune system cells release substances such as histamine and leukotrienes that cause the symptoms of allergic rhinitis; these and other substances also cause inflammation in the nasal lining that makes the nose very sensitive to irritants such as smoke and strong odors or to changes in the temperature and humidity of the air.

#### **Causes**

- When allergic rhinitis is caused by common outdoor allergens, such as airborne tree, grass and weed pollens or mold, it is called *seasonal allergic rhinitis*, or “hay fever.”
- Allergic rhinitis is also triggered by common indoor allergens, such as animal dander (dried skin flakes and saliva), indoor mold, droppings from dust mites and cockroach particles. This is called *perennial allergic rhinitis*.

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## **Symptoms**

- Sneezing
- Stuffy nose (congestion)
- Runny nose
- Itching in the nose, roof of the mouth, throat, eyes and ears

## **Diagnosis**

If you have symptoms of allergic rhinitis, an allergist/immunologist can help determine which specific allergens are triggering your illness. He or she will take a thorough health history, and then test use to determine if you have allergies. Skin tests or blood tests are the most common methods for determining your allergic rhinitis triggers.

## **Treatment**

Once your allergic rhinitis triggers are determined, your physician or nurse will work with you to develop a plan to avoid the allergens that trigger your symptoms. For example, if you are allergic to dust mites or indoor mold, you will want to take steps to reduce these allergens in your house as much as possible. The *Tips* brochures on *Indoor Allergens* and *Outdoor Allergens* provide helpful advice in this area.

Your physician might prescribe medication to decrease your allergic rhinitis symptoms.

*Antihistamine pills and nasal antihistamine sprays* block histamine, one of the most important mediators of the allergic response. The release of histamine during allergic reactions leads to many rhinitis symptoms, including itching, sneezing and runny nose. Antihistamines are not as effective for nasal congestion.

*Leukotriene receptor antagonists* come in pills and block the action of leukotrienes, also important mediators of allergy symptoms and of inflammation. They can work against all the symptoms of allergic rhinitis.

*Nasal corticosteroid sprays* reduce and control the impact of many of the mediators that can cause inflammation in the nose. These medications improve all symptoms of allergic rhinitis, including itching, sneezing, runny nose, and congestion. Nasal corticosteroids are the strongest medications available for the treatment of allergic rhinitis.

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*Decongestant pills or sprays* can contribute in the care of patients with allergic rhinitis whose nasal congestion cannot be relieved with other medications. Decongestant sprays should not be used for long periods of time.

A nasal spray called *ipratropium* can be used to reduce runny nose.

*Allergen immunotherapy*, also known as “allergy shots,” may be considered if your symptoms persist. This treatment involves receiving injections periodically—as determined by your allergist/immunologist—over a period of three to five years. The shot solutions contain the substances that you are allergic to. This treatment helps your immune system tolerate these substances and lessens the need for medications.

### **Non-allergic rhinitis**

At least one out of three people with rhinitis have no allergies. Non-allergic rhinitis usually afflicts adults and causes year-round symptoms, especially runny nose and nasal congestion. This problem differs from allergic rhinitis because the immune system does not seem to be involved. Unfortunately, we do not have good understanding of why non-allergic rhinitis occurs.

Some people with non-allergic rhinitis have inflammation in their nose and sinuses. In the most severe forms of this problem, patients have polyps, which are growths on the mucus membranes of the nose that block the air from moving in and out. Patients with these problems also suffer from loss of the sense of smell. In other forms of non-allergic rhinitis there is very little if any inflammation in the nose and the symptoms are mostly triggered by strong smells, pollution, smoke and other irritants. Some doctors call this condition *vasomotor rhinitis*.

Symptoms of non-allergic rhinitis can be caused by medications as side-effects. These include some blood pressure medicines, oral contraceptives, or medications used for erectile dysfunction. The most common form of this type of non-allergic rhinitis is caused by nasal decongestant sprays, when they are used by some people for long periods of time. This type of medication-induced rhinitis is also called *rhinitis medicamentosa*.

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## **Treatment**

If there is inflammation in the nose, the treatment of choice for this form of non-allergic rhinitis is *nasal corticosteroid sprays*.

If there is a lot of runny nose, *ipratropium nasal spray* can provide relief against this symptom in non-allergic rhinitis.

If nasal congestion is a major problem, *decongestant pills or sprays* can be used, but the sprays should not be used for long periods of time,

Recently, an *antihistamine nasal spray* has been found helpful in relieving the symptoms of non-allergic rhinitis.

By learning about the causes and symptoms of various forms of rhinitis, you will be better able to identify your symptoms and triggers. Your allergist/immunologist can assist by making an accurate diagnosis and developing an effective treatment plan for you.

## **When to see an allergy/asthma specialist**

Patients should see an allergist/immunologist if they:

- Have prolonged or severe symptoms of rhinitis.
- Have nasal polyps.
- Have co-existing conditions such as asthma or recurrent sinusitis.
- Have symptoms interfering with quality of life and/or ability to function.
- Have found medications to be ineffective or have had adverse reactions to medications.
- Are a child with allergic rhinitis, because immunotherapy may potentially prevent the development of asthma.

Your allergist/immunologist can provide you with more information on allergic and non-allergic rhinitis.

*Tips to Remember* are created by the Public Education Committee of the American Academy of Allergy, Asthma and Immunology. The content of this brochure is for informational purposes only. It is not intended to replace evaluation by a physician. If you have questions or medical concerns, please contact your allergist/immunologist. AAAAI Web site [www.aaaai.org](http://www.aaaai.org)

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