Allergic Rhinitis

The immune system protects the body against potentially harmful substances, such as bacteria and viruses. An allergy is an exaggerated immune response to a substance(s) that is (are) generally not harmful. Allergic rhinitis is a collection of symptoms, predominantly in the nose and eyes, caused by airborne particles of dust, dander, or plant pollens in people who are allergic to these substances. Allergies to pollen are commonly called “hay fever.” Persons with a history of asthma or eczema are more likely to have allergic rhinitis.

When an allergen such as pollen or dust is inhaled by a person with a sensitized immune system, it triggers antibody production. These antibodies bind to cells that contain histamine. When the antibodies are stimulated by pollen and dust, histamine (and other chemicals) is released.

Common symptoms include; sneezing, a stuffy or runny nose, itchy eyes, nose, palate, skin, and throat; and watery eyes. You may also have a nasal voice; breathe noisily; snore; feel chronically tired; have a poor appetite; feel nauseated; have frequent headaches; and, have some difficulty hearing and smelling. Severe allergies can cause hives or even a life-threatening reaction, “anaphylaxis.”

Causes

Seasonal allergic rhinitis (commonly called hay fever) usually results from tree, grass, flower or ragweed pollen. With this type of rhinitis, symptoms will decrease with the arrival of cold weather.

Perennial allergic rhinitis can cause year-round symptoms. This allergic reaction is the result of indoor irritants such as feathers, dust, mold spores, animal danders (hair and skin cells shed by pets) or dust mites.

Because different types of pollen, dust and mold spores occur in various geographic locations, you may suddenly develop allergic rhinitis, if you move or travel.

Prevention

You cannot prevent an allergy, but you can prevent a reaction. The most effective method to prevent a reaction is to avoid the allergen that triggers your allergic response. Try these steps as well:

- If you are allergic to warm-blooded animals, confine your pet to a particular area of your home. It is especially important to keep warm-blooded pets out of the bedroom. If the effects on your health are severe, consider giving your pet away.
- Avoid pollen by using air conditioning, by avoiding outside activity during pollen season, and by timing your vacations away from home to benefit your health. There is more pollen in the air on hot, windy days than on rainy days. Consult the pollen forecast when planning activities.
- Check the material from which your pillows and comforters are made. Feathers, foam rubber, or pillows more than five years old are often allergenic.
- Avoid dust and mold. Since this is difficult and it may be impractical for you to create an "allergy-proof" home, at least make sure your bedroom is as allergen-free as possible:
  - move out all unnecessary furniture
  - frequently clean the curtains, blinds, bedding and carpeting
  - enclose mattresses and box springs in plastic
  - purchase a HEPA filter for your sleeping area and possibly for other areas of your home
  - keep the floors bare
  - store clothing so dust will not settle on it
  - keep windows tightly shut
  - use pillows and comforters stuffed with dacron or polyester
  - cover or filter all vents
  - move out decorative pillows, books, and stuffed animals
  - use dusting products formulated to hold the dust
  - never sweep - use a vacuum only

These tips may also decrease the severity of your allergic reaction and increase your general comfort:

- Maintain a balanced diet to improve your body's ability to heal itself
- Sleep with your head elevated to prevent nasal congestion during the night
- Drink adequate fluids (eight 8-ounce glasses per day) to loosen the secretions in your nose and throat
- Exercise regularly

Diagnosis

It is not always easy to diagnose allergic rhinitis. Many symptoms are similar to those of a cold so, if you use cold preparations, you may seem to improve for short periods of time.

You and your practitioner may notice that you have symptoms every August (or May) and that the symptoms last for about the same amount of time each year. If you have perennial allergic rhinitis, it is even harder to diagnose because there is no clear pattern of illness. Sometimes your practitioner may order blood and skin tests to determine whether or not you have an allergy.

Treatment

The best treatment for your allergy is to avoid the allergen. When this is not possible, medication can usually control the symptoms. Because each individual is unique, there is no standard treatment for allergic rhinitis. The best medication can only be determined by you and your practitioner. It may take several trials for you to determine the best medication and the optimal dosage.

These medications are used to treat allergic rhinitis:

- **Short-acting antihistamines**, such as Benadryl, chlorpheniramine, and brompheniramine, which are generally over-the-counter (non-prescription), often relieve symptoms, but can cause drowsiness.

- **Longer-acting antihistamines** cause less drowsiness, and can be equally effective. These medications, which require a prescription, include fexofenadine (Allegra), and cetirizine (Zyrtec). One formerly prescription medication, loratadine (Claritin), is now available over the counter. It does NOT tend to cause drowsiness. Side effects may include dizziness, blurred vision, insomnia, tremors, nausea and dry mouth. If you experience any of the side effects, discuss them with your practitioner.

- **Decongestants** can give short-term relief from nasal stuffiness. Use of decongestant nasal sprays for longer than three days at a time can cause a "rebound" effect that ultimately makes you even more congested than before. Use them only on a short-term, special occasion basis (i.e., unable to sleep for several nights, a test, a date, etc.). Persons with certain medical conditions, such as high blood pressure, should not use oral decongestants.

- **Corticosteroids** may lessen your allergic reaction by preventing body cells from responding to histamine. For allergic rhinitis, these compounds are administered via a nasal spray. Minimal side effects have been found even with chronic use at customary dosage. For profound allergy symptoms, such as hives, a very short course of systemic cortisteroid may be considered.

- **Cromolyn** sodium inhibits the body's release of histamine after exposure to an antigen, which can lessen or stop the allergic response. If you are allergic to a substance that you are exposed to occasionally, you would only take this medication prior to exposure. Side effects are minimal. Unfortunately, not everyone is helped by this medication.

- **Immunotherapy** or (allergy shots) are also used in cases of allergic rhinitis. It is effective only when a specific allergen can be identified. Some ragweed and pollen allergies respond well to this treatment. Since you are allergic to the substance injected, you may experience severe allergic responses. Therefore, if you undergo immunotherapy, you should work closely with your physician and report any symptoms of reaction to the injection. Immunotherapy is not a "quick fix" and may take six months before effectiveness is noted. It is very helpful for many people.

References

Family Doctor Web site and Medline Plus Web site, search for allergens

If you are a registered University of Illinois student and you have questions or concerns, or need to make an appointment, please call: **Dial-A-Nurse at 333-2700**

If you are concerned about any difference in your treatment plan and the information in this handout, you are advised to contact your health care provider.

Visit the McKinley Health Center Web site at: **http://www.mckinley.uiuc.edu**