

## "I just can't go to the family reunion picnic anymore."

## Allergic Diseases May Be Affecting Your Life in Many Ways

Everyone seems to know someone who has allergies. People often ask, "Isn't everyone allergic to something?" Many people may suffer from allergies without
 ever realizing that they have a treatable allergic condition. Some symptoms can be very obvious, such as sneezing on a high pollen day or after exposure to a cat. But other symptoms can be chronic (on-going), such as recurrent upper respiratory infections, bronchitis, ear infections, headaches, cough, and fatigue. These symptoms may go unrecognized as being caused by an allergy.

People with allergic diseases may not stop to think about how much allergy symptoms are affecting their lives. But if you do, you can probably think of a number of ways in which allergies affect your quality of life. ${ }^{1,2}$ In addition to the symptoms like sneezing or watery eyes, you may not be able to enjoy outdoor activities or have a pet. ${ }^{3}$

Allergies can also affect you or your family in other important ways, such as time lost from school or work, or poor performance due to an inability to concentrate. The time and expenses related to obtaining medical care and buying medications can also add up. ${ }^{4}$

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## "Some people say,

 'It's only allergies'."
## Understanding Allergies

It's much more than just allergies to the person who is suffering. Unfortunately, the allergic person is sometimes thought of as a complainer. Friends, co-workers, and family may not be sympathetic to how allergies are affecting the individual because symptoms are not always obvious. The allergic person may appear to be healthy, yet may be suffering from severe headaches or intense fatigue. For the 40 to 50 million Americans like you who suffer from allergies, this disease is very real and very important. In fact, the National Institute of Allergy and Infectious Disease has called allergy one of "the major causes of illness and disability in the United States."1

Allergies can sometimes affect many different parts of the body, such as the eyes, nose, sinuses, throat, lungs, and skin. ${ }^{1}$ One form of allergy that causes sneezing, runny or stuffy nose, and itching and irritation of the nose and eyes is called hay fever or allergic rhinitis. Hay fever is one of the most common chronic diseases in the United States. ${ }^{1}$

Allergies should be taken seriously because they can lead to other medical complications. ${ }^{1,2}$ For example, people with allergies have a higher risk of infections of the ears or sinuses than do non-allergic people.?


[^1]

## "If I have allergies, does that mean that my children will too?"

## Understanding Allergies

A common question often asked is, why do some people get allergies while other people do not? Medical researchers think that people inherit a tendency to develop allergies from one or both parents. ${ }^{1}$ That does not mean that children will develop the exact same allergies as their parents. Once the allergic trait has been inherited, specific allergies develop with time and exposure. Sometimes allergies develop after a large exposure to an allergen when normal body defenses were weakened. This could happen during an infection or pregnancy, for example. ${ }^{1}$


Allergy symptoms are caused by a specific response by the immune system after exposure to a substance. Because these substances set off allergic reactions, they are called "allergens" or "triggers". The immune system is vital to protecting us from outside threats, such as bacteria or viruses that can cause harm and disease on their own. The substances that trigger an allergic reaction in one person can be completely harmless to another non-allergic person. For this reason, many allergic reactions are like false alarms. The immune system attacks the allergen as if it is a dangerous invader, and causes symptoms and related problems. ${ }^{1}$

Many types of allergens from different sources can cause allergies. ${ }^{12,3}$


## Taking Control of Your Allergic Disease

It is sometimes hard to tell if you have allergies or just a cold. ${ }^{1}$ Recognizing patterns of allergies can be an important step in taking control of them.

The first question to ask yourself is: how long have you had your symptoms? Cold symptoms usually last a week or two. If you have a runny nose, cough, sneezing, and other symptoms that last longer, you may have allergies. ${ }^{1}$

Another question to ask is: are there any patterns to when symptoms occur? Do you only have them at certain times of year? Do you only get them after you've been in a particular place, like a damp basement, or come into contact with something out of the ordinary, like a friend's pet or someone wearing strong perfume? ${ }^{1}$ Do you feel better when you go away on vacation? Do symptoms seem worse when you are in one particular room of your house? Do symptoms seem worse in the morning or at night? Do you feel better or worse on a rainy day?

Some people may be able to answer those questions easily. For many other people, there does not seem to be any pattern when symptoms occur and figuring it out can be harder. That's why it is important for you to work closely with your doctor to figure out whether you have an allergic problem and then develop a plan of care that will be best for you. As part of this process, your primary care doctor may refer you to see a specialist to help with diagnosis and treatment decisions. ${ }^{2,3}$

## How Allergies Are Diagnosed

Your doctor will have many questions about your overall health history and your allergic symptoms. This information will help your doctor determine what type of allergy you have. It is important for your doctor to know what kind of symptoms you have and how severe they are. ${ }^{1}$ Since you may not have symptoms on the day you see the doctor, you may want to think about your symptoms and write down as much as you can before your visit. Then, be sure to bring your notes with you to your next visit to the doctor's office. Since your doctor may ask about your family history of allergies, it is a good idea to talk with other family members about that before your visit to the doctor. You may find that some family members do not have any obvious allergic symptoms, such as sneezing, runny nose or itchy eyes, but may have severe headaches or chronic nasal congestion that may be related to an allergy. Any information you are able to obtain will be helpful to your doctor.

When you first arrive at your doctor's office, you may be asked to fill out forms about your symptoms. These forms will also ask about any known triggers, as well as any pattern of symptoms.

Your doctor will examine you and focus on the areas of the body that are affected by allergy symptoms. You may also have allergy testing done at this time to identify specific substances you are allergic to., ${ }^{1,2}$ These tests may include skin or blood tests. You may also have breathing tests or x-rays to see if your allergies may be affecting your lungs. ${ }^{1,2,3}$


## "Once I found out what I was allergic to, it was much easier to decide on the best treatment for me."

## Options for Treatment

There are basically 3 ways to manage your allergies: avoidance of allergens, medications, and allergy immunotherapy ("allergy shots"). ${ }^{1}$

The cornerstone of allergy treatment is avoidance of the allergens. You have to be exposed to allergens in order to have symptoms. Therefore, if you don't ever come into contact with your allergens, you won't have allergy symptoms. Your doctor will provide you with important steps to take to reduce exposure to offending allergens. Avoiding contact with irritating chemicals, such as tobacco smoke, air pollution, insect sprays, can also help keep allergy symptoms in check. It is not always possible or feasible for some people to completely avoid their allergens without making major changes in their lives. This is especially true of outdoor airborne allergens, such as pollens and molds or indoor airborne allergens such as dust mites or the family pet.12

You are probably already familiar with the various kinds of medications that are used to treat allergies. Antihistamines, decongestants, topical nasal steroids, eye drops, and cromolyn may help relieve symptoms temporarily. Some of these medications are available without a prescription while others require a prescription. Medications may need to be taken several times a day, may cause side effects, and only treat the symptoms of allergies, not the actual cause of the problem. ${ }^{12,3}$


Allergy immunotherapy ("allergy shots") has been used for over 100 years by people who cannot avoid their allergens or for those individuals that do not get adequate relief from medications. Immunotherapy is different from medications because it actually changes the way the body reacts to allergens. Doctors often rely on immunotherapy to help control or even eliminate allergic symptoms for their patients.1,2,3,4


[^2]
## "It's a natural treatment that works with my body's own defenses."

## Allergy Immunotherapy: A Natural Approach

> Unlike medications that provide temporary relief, allergy immunotherapy does not mask symptoms, but can actually improve the course of allergic disease for the long term.1,3, This can mean that the burdens of allergy, such as taking daily medications and missing work or school, may be reduced.'2 Allergy immunotherapy has even been shown to reduce the risk of developing asthma in patients with allergic rhinitis and prevent the development of new sensitivities in people who already have an allergic disease.,.4.
> Immunotherapy, also known as "allergy injection" is a form of treatment that uses extracts of natural allergens, such as pollen, mold spores, dust mites, and animal dander, that cause allergic reactions in sensitive people. Allergen extracts are made up of tiny amounts of these allergens collected from their source in nature and dissolved in sterile liquid solutions for use by your doctor.,5
> Allergen injections strengthen your immune system and increase your tolerance to unavoidable allergens.2.4 Once your doctor has identified your specific allergen(s), you start the initial build-up phase by receiving a low level of exposure to those allergens injected into the skin. Over time, the amount of allergen exposure is gradually increased so that your body gets used to it and does not react with allergy symptoms.4,5, In this way, your body can become desensitized to the allergens that once caused problems for you. ${ }^{4}$ Then, you continue to receive the effective allergen dose during the maintenance phase of therapy.
> Allergy immunotherapy is a particularly good choice for:4,5
> • People with allergy symptoms that cannot be controlled by avoidance or medications
> • People who have unacceptable side effects with medications
> • People who want to reduce their use of long-term medications



## Proven Benefits of Immunotherapy

Through over 100 years of use, allergy immunotherapy has been well studied and proven to be effective in patients with allergic rhinitis, allergic conjunctivitis, and allergic asthma. There is some evidence that this therapy may also be useful to treat other forms of allergy, such as atopic dermatitis, that affects the skin..$^{1,2}$

Medical studies have shown that up to $85 \%$ of people treated with immunotherapy for hay fever may achieve symptom relief within the first year of starting immunotherapy. ${ }^{3}$ Many people also benefit from being able to reduce the use of allergy medications and an improved quality of life. ${ }^{1}$ As mentioned before, allergy immunotherapy may prevent the development of asthma in people with hay fever ${ }^{3,4}$ and may prevent the development of new allergies in people who already have one kind of allergy. ${ }^{1}$

Since allergy immunotherapy has been around for so long, the safety profile of this therapy is well known. This therapy can be used to treat children and adults, and even pregnant women. ${ }^{2}$ Minor reactions, such as a red, itchy bump at the injection site,
 may occur immediately following a treatment. A similar kind of reaction may occur 6 to 24 hours after treatment in some cases. ${ }^{2}$ These reactions can be managed by the doctor who administers the treatment. These kinds of reactions do not interfere with treatment in the great majority ( $96 \%$ ) of patients. ${ }^{1}$ In rare cases, more severe, reactions may occur. For this reason, allergy immunotherapy is always given under close medical supervision. ${ }^{1,2}$

Doctors know that the benefits of allergen immunotherapy can last for many years. Some people who complete 3 to 5 years of immunotherapy can stop without further treatment or symptoms. Other people may require longer immunotherapy or experience symptoms after stopping immunotherapy. So, treatment must be tailored to each person's needs. ${ }^{1,2,3}$


## Considerations

As with any kind of medical treatment, there are many factors to consider before starting. Allergen immunotherapy requires a series of office visits for injections of allergen extracts into the skin over several years. ${ }^{1}$ Therefore, people considering allergen immunotherapy need to know that they are committing to long-term therapy, and need to keep up with office visits as scheduled to get the best results.

During the initial build-up phase of therapy, you will need to plan on 1 or 2 office visits per week. After each allergy injection, you will be monitored in the office for at least 30 minutes. The purpose of the build-up phase is to establish a target dose that will control your allergy symptoms, which can usually be reached within 3 to 6 months. Faster schedules can also be used. ${ }^{1}$

Once your target dose is reached, the maintenance phase begins. ${ }^{1,2}$ During the maintenance phase, the time interval between office visits is typically lengthened. Injections may be given every 2 to 4 weeks. ${ }^{1}$

The exact duration of therapy cannot be predicted for any one person starting therapy, but is often around 3 to 5 years. The length of treatment is based on each individual patient's need. ${ }^{1,2,3}$ Overall, the benefits of allergen immunotherapy can last many years even life-long - after stopping therapy. ${ }^{\text {? }}$


Allergen immunotherapy can be a cost-effective treatment for allergies. ${ }^{1}$ Be sure to check with your health plan or insurance company so that you know what benefits will be provided for you. You may need to get prior approval before you go to see a specialist. If so, be sure to get that approval before your first visit.?


## "I like to be knowledgeable about the medications I take."

## What You Need To Know

Allergenic extracts are used by healthcare professionals to test for allergies in patients who have signs and symptoms of allergy. Allergenic extracts are also used in injections to treat seasonal and perennial allergies that have been diagnosed based on a medical history that indicates possible allergies and positive allergy tests.

## IMPORTANT SAFETY INFORMATION:

Allergenic extracts should be administered by trained healthcare professionals.
Allergenic extracts may cause anaphylaxis, which may be serious and life-threatening. Some patients may experience symptoms such as swelling of the face and/or mouth; sneezing, coughing, or wheezing; shortness of breath; and/or nausea, dizziness, or faintness.

The most common adverse reactions may include: runny nose; wheezing; swelling of the throat; low blood pressure; and redness, itching, rash, swelling, and/or tenderness at the injection site. Other adverse reactions include: nausea, vomiting, abdominal cramps, and diarrhea.

Your healthcare professional will request that you remain in the office for at least 30 minutes following allergy injections to monitor you for any immediate side effects.

Allergy injections may not be suitable for patients with certain heart and respiratory medical conditions or patients who are taking beta-blockers. Please discuss your full medical history with your healthcare professional.


## "After allergy immunotherapy, I can play outside with my daughter again.

## What You Need to Do

1. Check with your insurance company about coverage and benefits.
2. Talk with your doctor about your allergies.
3. Understand your allergies and what causes symptoms.
4. Get the testing you need to identify your specific allergens.
5. Discuss treatment options with your doctor.
6. Weigh the risks and benefits of the various treatments.
7. Consider the commitment you will need to make to get the best results possible.
8. Work with your doctor to develop a treatment plan that's best for you and stick with the plan.

allergy immunotherapy

# Questions and Answers about Allergy Immunotherapy 

## Will I have to get shots forever?

The maintenance phase of allergen immunotherapy generally lasts about 3 to 5 years, but varies from one person to another. ${ }^{1}$ After stopping immunotherapy, some people will begin to experience allergy symptoms again and may need to continue immunotherapy. Other people will be free of symptoms and will no longer need allergy medications after completing immunotherapy. ${ }^{1,2}$

## How long will it take before I feel better?

AWhile this cannot be predicted for sure, some people begin to feel relief very shortly after reaching the target dose of allergen immunotherapy. ${ }^{3}$ Clinical experience shows that about $85 \%$ of patients with allergic disease see improvement within the first 12 months of allergen immunotherapy. ${ }^{2}$

## Do the shots really work?

$A$Allergen immunotherapy has been shown to significantly reduce the symptoms of hay fever and the use of allergy medication in approximately $85 \%$ of patients within the first 12 months. ${ }^{2}$

## Will my insurance pay for allergy testing and treatment?

A
Every health insurance plan is different. It is a good idea to contact your health insurance's member services to find out exactly what is covered by your policy. Usually there is a toll free phone number on the back of your insurance card.

If I get allergy shots, can I stop taking pills and nasal sprays?

AAllergy shots should decrease your need for medication, but there still may be times that you need to use them, such as on days when the pollen count is very high or when you anticipate a large exposure to an allergen that you are highly allergic to. ${ }^{1}$ Allergen immunotherapy is a natural approach that works with your body's own defenses. And, allergen immunotherapy is the only treatment that may actually reduce your allergic symptoms, therefore reducing your need to use allergy medications. ${ }^{2,4,5}$

## Will my child with allergies get asthma?

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There is good scientific evidence that people who have allergies are at higher risk of developing other diseases, including asthma, compared to non-allergic people ${ }^{2,6,7}$ Allergy immunotherapy has been shown to reduce the risk of developing asthma and new types of allergies in people who already have an allergic disease. ${ }^{1,5}$ It is important to work with your child's physician to develop a treatment plan and discuss preventative measures that may help to reduce the chance of developing asthma.
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6. Shin J-W, Sue J-H, Song T-W, et al. Atopy and house dust mite sensitization as risk factors for asthma in children. Yonsei Med J.2005;46:629-634
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## "Thanks, Mom, for getting me the treatment I needed."

## For more information:

American Academy of Asthma, Allergy and Immunology (AAAAI) provides information about related medical conditions, new research, parent resources, pollen levels, and real life stories from people living with allergies. (http://www.aaaai. org/patients.stm)
Asthma and Allergy Foundation of America (AAFA) is dedicated to improving the quality of life for people with asthma and allergic diseases through education, advocacy and research. (http://www.aafa.org/]
American Academy of Otolaryngic Allergy (AAOA) is a professional association of board-certified otolaryngologists (frequently called Ear, Nose, and Throat doctors). (http://www.aaoa.org/)
American College of Allergy, Asthma \& Immunology (ACAAI) is a professional association of allergists and a leading authority on allergic conditions, such as allergies and asthma. (http://www.acaai.org/allergist/Pages/default.aspx) National Institute of Allergy and Infectious Disease (NIAID) is the branch of the United States National Institutes of Health (NIH) that pursues research on asthma and allergic diseases. (http://www.niaid.nih.gov/topics/ allergicdiseases/Pages/default.aspx)

Allergy \& Asthma Network/Mothers of Asthmatics (AANMA) is the leading nonprofit family health organization dedicated to eliminating suffering and death due to asthma, allergies and related conditions. (http://www.aanma.org/)



[^0]:    1. Cox L, Nelson H, Lockey R. Allergen immunotherapy: a practice parameter third update. J Allergy Clin Immunol. 2011;127:S1-S55.
    2. Tang EA, Matsui E, Wiesoh DG, Samet JM. Epidemiology of asthma and allergic diseases. In: Adkinson NF, Bochner BS, Busse WW, et al, eds. Adkinson: Middleton's Allergy: Principles and Practice.7th ed. Philadelphia, PA: Elsevier; copyright 2008: Chapter 42.
    3. National Institute of Allergy and Infectious Disease. Airborne allergens. Something in the air. NIH Publication No. 03-7045. Available at: http://www.niaid.nih.gov/topics/ allergicdiseases/documents/airborne_allergens.pdf. Accessed February 1, 2011.
    4. Storms W, Meltzer EO, Nathan RA, Selner JC. The economic impact of allergic rhinitis. J Allergy Clin Immunol. 1997;99:S820-S824.
[^1]:    1. National Institute of Allergy and Infectious Disease. Airborne allergens. Something in the air. NIH Publication No. 03-7045. Available at: http://www.niaid.nih.gov/topics/allergicdiseases/documents/airborne_allergens.pdf. Accessed February 1, 2011.
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    3. Shin J-W, Sue J-H, Song T-W, et al. Atopy and house dust mite sensitization as risk factors for asthma in children. Yonsei Med J.2005;46:629-634.
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[^2]:    1. Allergy and Allergy Foundation of America. Allergy overview. Available at: http://aafa.org/display.cfm?id=98cont=81. Accessed February $1,2011$.
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    4. Cox L, Nelson H, Lockey R. Allergen immunotherapy: a practice parameter third update. J Allergy Clin Immunol. 2011;127:S1-S55.
