

Immunotherapy (Allergy Shots)

Subcutaneous immunotherapy (commonly called allergy shots) is a form of treatment to reduce your allergic reaction to allergens. Allergens are substances to which you are allergic. Remember, not all asthma is due to allergies. Research has shown allergy shots can reduce symptoms of:

- Allergic rhinitis (hay fever) grass, weed and tree pollen allergies
- Allergic asthma
- Dust mite allergy
- Animal dander allergy
- Insect sting allergy

Allergy shots are less effective against molds and are not a useful method for the treatment of food allergy.



Allergy shots consists of a series of injections (shots) with a solution containing the allergens that cause your symptoms. There are usually two phases: build-up and maintenance. Treatment build-up begins with a weak solution given once or twice a week. The strength of the solution is gradually increased with each dose. Once the strongest dosage is reached in a few months, the injections are slowly spaced apart until it reaches once a month. At this point, sensitivity to the allergens has been decreased, and a person has reached a maintenance level.

Though not a cure for everyone, allergy shots can significantly reduce allergy symptoms in people who are unable to avoid allergens and who do not respond well to other medications. Allergy shots should always be given at your health care provider's office since there is a risk of a severe reaction.

When Is immunotherapy recommended?

If you are thinking of allergy shots, ask your health care provider about a referral to a board-certified allergist. A board-certified allergist will follow a number of steps to evaluate if allergy shots are right for you.

- The allergist will ask you questions about your history, environment and symptoms. This will help determine if skin testing is needed. Prick skin testing may be done. This will help identify the specific allergens that are causing your symptoms. Skin testing should only be done under the supervision of a board-certified allergist.
- Once an allergy has been identified, the next step is to decrease or eliminate exposure to the allergen. This is called environmental control. Evidence shows that allergy and asthma symptoms may improve over time, if the recommended environmental control changes are made. For example, removing furry or feathered pets or following control measures for house dust mites and cockroaches may decrease symptoms. Preventing your contact with grasses, weeds and tree pollen may be more difficult. Closing outside doors and windows and using air conditioning decreases exposure in the home.

- Next, your health care provider may recommend medication. Antihistamines and nasal medications may be recommended. Allergy shots may be recommended for people with severe allergic rhinitis (hay fever). They may also be recommended for people with allergic asthma when the allergen cannot be avoided. Allergy shots and sublingual tablets should be prescribed only by a board-certified allergist.

How long are allergy shots given?

Six months to a year of allergy shots may be required before you notice any improvement in symptoms. If your symptoms do not improve after this time, ask your allergist to review your overall treatment program. In general, allergy shots should be stopped if they are not effective within 2-3 years. If the treatment is effective, the shots often continue 3-5 years, until the person is symptom-free or until symptoms can be controlled with mild medications for one year. After stopping some people may have a return of symptoms. Discuss this with your allergist to design an individual treatment program that optimizes your goals.

Rush immunotherapy

"Rush immunotherapy" is a series of allergy shots. They are given over 2 – 3 days in a row. This "rushes" the initial build-up phase of the treatment. Increasing doses of allergen extract are given every 30 minutes to hourly instead of every few days or weeks. There is an increased risk of a reaction with this procedure. Therefore, rush immunotherapy should only be done in a hospital or high-risk procedure area under very close supervision.

What is sublingual allergy immunotherapy?

Sublingual immunotherapy is an alternative treatment method to treat allergies without injections. Small doses of allergens are introduced under the tongue (tablet) to reduce allergic symptoms. Currently, the U.S. Food and Drug Administration (FDA) has approved only three sublingual products. Two are directed at different kinds of grass pollen and one is for short ragweed. The two grass pollen allergy tablets are: Oralair®, which has five kinds of northern grass pollen and Grastek® which has Timothy Grass pollen. The short ragweed allergy tablet is called Ragwitek®.

Other Therapies

There are a number of alternative treatments which claim to "cure" allergies. These methods are **not** supported by scientific studies. They are **not** approved by the American Academy of Allergy and Immunology. Unapproved alternative treatments include:

- High-dose vitamin and mineral therapy
- Urine ingestion or injections
- Bacterial vaccines
- Exotic diets
- Liquid sublingual therapy

It is easy to feel overwhelmed or confused by the many different methods of allergy testing and treatment. Some treatment strategies are undergoing vigorous scientific evaluation in clinical trials here at National Jewish Health and around the world, but they are not yet proven in safety and efficacy. We encourage you to work with a board-certified allergist to evaluate and determine what is appropriate for you.

Visit our website for more information about support groups, clinical trials and lifestyle information.

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