Immunotherapy (Allergy Shots)

If you have an environmental allergy, there are several options for treatment. This *Health Facts for You* will review one of the treatment options called immunotherapy, or allergy shots. Other treatment options include:

- Avoiding allergens
- Taking medicines
- Choosing no treatment

Allergies Treated with Allergy Shots

Allergy shots may be used to treat:

- Seasonal allergies
- Allergic asthma
- Severe reactions to insect stings

Allergy shots may be used if your symptoms have not improved after trying other treatments and/or if you had a positive allergy skin test. Shots do not cure patients, but they may decrease symptoms which could reduce the number of medicines you may need.

Allergy shots may decrease your allergic responses to:

- Pollens
- Molds
- Pet dander
- Dust mites
- Venoms

How It Works

Following a treatment schedule, patients will receive a shot that contains a small amount of the allergen(s). The mixture of allergens given in a shot is made unique to each patient. They are made of allergens that have caused you to have a positive skin test or allergy symptoms.

Treatment Phase	How often will I receive shots?	How long will this phase last?	What to Expect
Build-up Phase	Weekly	4-9 months	• You will receive very small doses of allergen in each shot. • The doses will slowly increase each week. This slow build-up decreases the chance of the shot itself causing an allergic response. • This phase may last longer if you miss scheduled visits, have reactions to shots, have illnesses, or if your asthma is not controlled.
Maintenance Phase	Monthly	3-5 years	• You should be seeing and feeling the benefits of the shots. • You will need a short rebuilding period each time new antigen material is made for you. For most patients, this will be between 2 and 5 steps.

Length of Treatment
For the best results, most patients will keep receiving allergy shots for 3-5 years. Length of treatment for bee sting allergy may vary and should be discussed with your doctor. Some patients slowly worsen after stopping allergy shots. If you choose to restart allergy shots, you would need to do the build-up phase again.

Risks
There is a risk that you may have a reaction to the allergy shot. Reactions can happen at any time – in the build-up and/or maintenance phase. There are three types of reactions from allergy shots:

- Local reactions
- General reactions
- Severe reactions

Type of Reaction	How Common	Symptoms	Prevention/Treatment
Local Reaction These occur around the area of the shot.	Most common	• A dime-sized itchy spot • A lemon-sized area of swelling	• No treatment needed • May change the allergy shot treatment schedule • Recommend taking an antihistamine (allergy pill) at least one hour before your shot
General Reactions These can occur with the first shot or with maintenance. They are not always related to the dose of allergen given.	Less common	• Itching on the palms of the hands or other parts of the body other than shot site • Sneezing • Coughing • Hives • Swelling of the lips or other sites • Shortness of breath	• Evaluation by Allergist present in-clinic when reaction occurs • Antihistamines, nasal sprays, asthma medications may be used • Epinephrine use is possible
Severe Reaction Most severe reactions occur within 30 minutes of getting the shot.	Rare Occurs in less than 1 in 1000 people	• Acute asthma • Anaphylactic shock (life-threatening changes in heart rate or blood pressure) • Death	• A shot of epinephrine (adrenaline) will treat severe reactions in most cases • Further evaluation in ER may be necessary

30-Minute Wait
All patients must stay within the care area for 30 minutes after getting a shot to monitor for a reaction. If you cannot wait the 30 minutes, you will not get your shot.

If you're 17 or younger, your parent or guardian can sign the "Informed Consent for Immunotherapy Treatment of Minors and Adult Wards" form and provide a phone number. Otherwise, they need to stay with you during the waiting period.

Please tell your care team right away if you have any increased allergy symptoms, problems breathing, light-headedness, or any other symptoms after getting your shot. We may provide treatment if you have a reaction to the shots. This may include giving you epinephrine.

Decrease Your Risk of a Reaction
To lower the risk of a reaction to the allergy shot you should:

- Decrease contact with allergens as much as you can.
- Do **not** exercise for at least 1 hour before your shot or for 2 hours after your shot. This can increase the chance of a reaction.

Before your shot, tell your doctor if:

- You have had a reaction before
- Your asthma is worse than normal
- You are feeling ill
- You are pregnant
- You are taking beta blocker medicine

Epinephrine Device
You are required to carry your EpiPen®, or similar product with you. You must show the unexpired device to the injection room nurse. If you have a reaction after your visit, use this pen as prescribed.

Call 911 and/or go to an emergency room within 20 minutes of using the epinephrine.

Your health care team may have given you this information as part of your care. If so, please use it and call if you have any questions. If this information was not given to you as part of your care, please check with your doctor. This is not medical advice. This is not to be used for diagnosis or treatment of any medical condition. Because each person's health needs are different, you should talk with your doctor or others on your health care team when using this information. If you have an emergency, please call 911. Copyright © 2/2025 University of Wisconsin Hospitals and Clinics Authority. All rights reserved. Produced by the Department of Nursing HF#8394