

ASTHMA & ALLERGY ALERT

A Publication of Asthma & Allergy Affiliates of the North Shore

James A MacLean MD
Jeanne E. Gose MD, PhD
Andrew I. Ober, MD
Cristina Palumbo MD
Eyal Oren, MD

Highland Medical Park
114R Highland Ave.
Salem, MA 01970
(978) 745-3711

Hunt Medical Building
80 Lindall Street
Danvers, MA 01923
(978) 777-0970

Willow Professional Park
865 Turnpike ST.
N. Andover, MA 01845
(978) 683-6256

Immunotherapy

What is immunotherapy?

Allergen immunotherapy is a form of treatment aimed at decreasing your sensitivity to substances called allergens. These allergens are identified by allergy testing, and are the substances that trigger your allergy symptoms when you are exposed to them.



Allergen immunotherapy involves injecting increasing amounts of an allergen over several months. Immunotherapy has been shown to prevent the development of new allergies

and, in children, it can prevent the progression of the allergic disease from allergic rhinitis to asthma. Allergen immunotherapy can lead to the long-lasting relief of allergy symptoms after treatment is stopped.

Who should be treated with immunotherapy?

Immunotherapy is only recommended for allergic asthma, allergic rhinitis and conjunctivitis, and stinging insect allergy. The decision to begin immunotherapy will be based on several factors including:

- Length of allergy season and severity of symptoms
- How well medications and environmental controls are working
- Desire to avoid long-term medication use
- Time: immunotherapy will require a significant time commitment
- Cost: immunotherapy may be covered better than medications and thus be an economical alternative

Can children receive immunotherapy?

Five is the youngest recommended age to start immunotherapy in the United States for several reasons, including the difficulties younger children may have in cooperating with the immunotherapy program. Recent studies have suggested immunotherapy may prevent the development of new allergies in children and also may prevent the development of asthma in children who have rhinitis.

There is no upper age limit for receiving immunotherapy. In considering immunotherapy in older persons, consideration must be given to the other medical conditions (such as cardiac disease) that are more frequent in older individuals, which could potentially make immunotherapy more risky.

Where should immunotherapy be given?

Immunotherapy should be given under the supervision of a physician in a facility equipped with proper staff and equipment to identify and treat adverse reactions to allergy injections. Ideally, immunotherapy should be given in the prescribing allergist/immunologist's office but if this is not possible, your allergist/immunologist will provide the supervising physician with comprehensive instructions about your immunotherapy treatment.

How does immunotherapy work?

Allergen immunotherapy works like a vaccine. Your body responds to the injected amounts of a particular allergen, given in gradually increasing doses, by

developing an immunity or tolerance to the allergen(s). As a result of these immune changes, immunotherapy can lead to decreased, minimal or no allergy symptoms when you are exposed to the allergen(s) included in the allergy vaccine.

There generally are two phases to immunotherapy: a build-up phase and a maintenance phase.

- Build-up phase: involves receiving injections with increasing amounts of the allergens. The injections are given once weekly and this phase typically takes 3-4 months to complete.
- Maintenance phase: This phase begins when the effective therapeutic dose is reached. Once the maintenance dose is reached, there will be longer periods of time between immunotherapy treatments. The intervals between maintenance immunotherapy injections is lengthened to every 3 weeks for a short period of time and then to once a month.

The benefits of immunotherapy, in terms of reduced allergy symptoms, can begin during the build-up phase but may take as long as 12 months on the maintenance dose. Improvement with immunotherapy may be progressive throughout the immunotherapy treatment period. Effectiveness of immunotherapy appears to be related to length of treatment and the dose of the allergen.

What are the possible reactions?

There are two types of adverse reactions that occur with immunotherapy: local and/or systemic reactions.

- Local reactions: are fairly common and present as redness and swelling at the injection site. This can happen immediately, or several hours after the treatment.
- Systemic reactions: are much less common than local reactions. Systemic reactions are usually mild and respond rapidly to medications. Symptoms can include increased allergy symptoms such as sneezing, nasal congestion or hives. Rarely, a serious systemic reaction, called anaphylaxis, can develop after an immunotherapy injection. In

addition to the symptoms associated with a mild systemic reaction, symptoms of an anaphylactic reaction can include swelling in the throat, wheezing or a sensation of tightness in the chest, nausea, dizziness or other symptoms.

Systemic reactions require immediate treatment. Most serious systemic reactions develop within 30 minutes of the allergy injections and this is why it is recommended you wait in the office for 30 minutes after your allergy injections.

Your allergist/immunologist is trained to monitor for such reactions and our staff is trained to identify and treat systemic reactions.

When should immunotherapy be stopped?

If immunotherapy is successful, maintenance treatment is generally continued for 3 to 5 years. Most individuals experience lasting remission of their allergy symptoms but some may relapse after discontinuing immunotherapy. Therefore, the decision to stop immunotherapy must be individualized.

How do I schedule my injection time?

Injections are scheduled at the time of each appointment for the next visit or you may schedule an appointment by phone. Calling ahead to schedule or cancel an injection appointment is appreciated. You may check our website for shot hours at each office location.

Injections are not given when you are sick. This includes colds, sinus infections, severe allergic symptoms (due to time of year), and asthma exacerbations.

You are encouraged to take your antihistamine the night before or morning of your injection. This should decrease any local effects of the injections and may improve the efficacy of the treatment. We also recommend avoiding strenuous exercise 2 hours before and after the injection.