

Allergy Shots (Immunotherapy)

Allergen immunotherapy, also known as allergy shots, is a form of long-term treatment that decreases symptoms for many people with allergic rhinitis, allergic asthma, conjunctivitis (eye allergy) or stinging insect allergy.

Allergy shots decrease sensitivity to allergens and often leads to lasting relief of allergy symptoms even after treatment is stopped. This makes it a cost-effective, beneficial treatment approach for many people.



Who Can Benefit From Allergy Shots?

Both children and adults can receive allergy shots, although it is not typically recommended for children under age five. This is because of the difficulties younger children may have in cooperating with the program and in articulating any adverse symptoms they may be experiencing. When considering allergy shots for an older adult, medical conditions such as cardiac disease should be taken into consideration and discussed with your allergist / immunologist first.

You and your allergist / immunologist should base your decision regarding allergy shots on:

- Length of allergy season and severity of your symptoms
- How well medications and/or environmental controls are helping your allergy symptoms
- Your desire to avoid long-term medication use
- Time available for treatment (allergy shots requires a significant commitment)
- Cost, which may vary depending on region and insurance coverage

Allergy shots are not used to treat food allergies. The best option for people with food allergies is to strictly avoid that food.

How Do Allergy Shots Work?

Allergy shots work like a vaccine. Your body responds to injected amounts of a particular allergen, given in gradually increasing doses, by developing immunity or tolerance to the allergen.

There are two phases:

- **Build-up phase.** This involves receiving injections with increasing amounts of the allergens about one to two times per week. The length of this phase depends upon how often the injections are received, but generally ranges from three to six months.
- **Maintenance phase.** This begins once the effective dose is reached. The effective maintenance dose depends on your level of allergen sensitivity and your response to the build-up phase. During the maintenance phase, there will be longer periods of time between treatments, ranging from two to four weeks. Your allergist / immunologist will decide what range is best for you.

You may notice a decrease in symptoms during the build-up phase, but it may take as long as 12 months on the maintenance dose to notice an improvement. If allergy shots are successful, maintenance treatment is generally continued for three to five years. Any decision to stop allergy shots should be discussed with your allergist / immunologist.

How Effective Are Allergy Shots?

Allergy shots have shown to decrease symptoms of many allergies. It can prevent the development of new allergies, and in children it can prevent the progression of allergic disease from allergic rhinitis to asthma. The effectiveness of allergy shots appears to be related to the length of the treatment program as well as the dose of the allergen. Some people experience lasting relief from allergy symptoms, while others may relapse after discontinuing allergy shots. If you have not seen improvement after a year of maintenance therapy, your allergist / immunologist will work with you to discuss treatment options.

Failure to respond to allergy shots may be due to several factors:

- Inadequate dose of allergen in the allergy vaccine
- Missing allergens not identified during the allergy evaluation
- High levels of allergen in the environment
- Significant exposure to non-allergic triggers, such as tobacco smoke

Where Should Allergy Shots Be Given?

This type of treatment should be supervised by a specialized 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 your allergist / immunologist's office. If this is not possible, your allergist / immunologist should provide the supervising physician with comprehensive instructions about your allergy shot treatments.

Are There Risks?

A typical reaction is redness and swelling at the injection site. This can happen immediately or several hours after the treatment. In some instances, symptoms can include increased allergy symptoms such as sneezing, nasal congestion or hives.

Serious reactions to allergy shots are rare. When they do occur, they require immediate medical attention. Symptoms of an anaphylactic reaction can include swelling in the throat, wheezing or tightness in the chest, nausea and dizziness. Most serious reactions develop within 30 minutes of the allergy injections. This is why it is recommended you wait in your doctor's office for at least 30 minutes after you receive allergy shots.