

# Immunotherapy: Allergy Shots

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## What is immunotherapy?

Allergy immunotherapy, also known as allergy shots, is a long-term treatment that reduces your sensitivity to substances that cause allergies. Some substances that commonly cause allergies are pollen, pet dander, dust mites, and mold.

To find out which substances cause your allergies, you will have skin tests. Based on your test results, a special mixture will be prepared for you with extracts of those substances. Then, you'll get a series of shots. At first, the mixture will be diluted (weak). It will gradually get stronger. Over a period of months, the shots can help “turn off” your allergic reactions.

## How effective is the treatment?

Every patient is different, but immunotherapy usually is very effective for seasonal allergies. Many people find that their allergies improve so much that they can stop taking their regular allergy medications.

Immunotherapy is less effective in some patients who have asthma because their asthma is not the result of allergies. Even so, about half of patients with asthma have an improvement in their asthma symptoms because of immunotherapy.

Although immunotherapy generally is considered safe and effective, you should know that no treatment outcome is guaranteed.

## How many shots will I get, and how often?

- You'll start by receiving 2 shots each week, with at least 1 day off between shots.
- After about 6 weeks, you'll get a shot once a week.
- Beginning at 3 to 4 months, you'll get shots every 4 weeks. This is the maintenance phase of treatment.

Most patients stay on a monthly schedule for 5 years, so immunotherapy is a long-term commitment.



Some patients can receive several shots during their first few clinic visits. This is called **cluster therapy**, and it means fewer visits to an allergy clinic. If you are interested in cluster therapy, talk to your provider.

## Who should *not* have immunotherapy?

Although most people can have immunotherapy for their allergies, patients taking certain medications should **not** have this treatment. These medications include:

- MAOIs (monoamine oxidase inhibitors). This group of medications includes Nardil and Parnate and is used to treat depression.
- Beta-blockers. There are many medications in this group, which is used to treat high blood pressure, problems with heart rhythm, and migraines. Some common beta-blockers are Betagan (levobunolol), Inderal (propranolol), and Sectral (acebutolol). Many beta-blockers have “lol” at the end of the generic name. If you're not sure whether a medication you take is a beta-blocker, check with your provider.

Patients who have asthma or heart disease and people who have had a severe reaction to immunotherapy in the past are at higher risk for severe reactions (side effects). For more information about possible reactions to allergy shots, see the other side of this fact sheet. If you have any concerns about your risks, talk to your provider.

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## What do I need to do while I'm on immunotherapy?

You play an important role in making your immunotherapy successful:

- **Get your shots on schedule.** If you miss or skip shots, you might have to start the treatment over again.
- But, **don't get a shot** if you feel sick, have a fever, or have had asthma symptoms in the past 24 hours.
- **Tell your provider about any reactions** (side effects) you notice after an allergy shot.
- **Carry an EpiPen with you** on days you plan to have a shot. Know when and how to use an EpiPen to treat a reaction.
- **Keep taking your other allergy medications** as usual, including prescription and over-the-counter medications. It can take a few months before your allergy symptoms improve after you start immunotherapy.
- **If you get pregnant,** tell the allergy department and your doctor right away. You can safely continue with immunotherapy, but your dose might need to be adjusted.

## What kind of side effects could I have?

### Side effects can be local or systemic

- **Local reactions happen at the site where the shot was given.**
  - Early reactions — you can experience itching, redness, or a hive (bump) soon after a shot.
  - Later reactions — about 8 to 12 hours after a shot you can experience swelling and soreness.
- **Systemic reactions are rare and usually happen within 30 minutes after getting a shot.** Patients who have heart disease and those with uncontrolled asthma are at higher risk for systemic reactions. Systemic reactions can include:
  - Sneezing
  - Itchy, watery eyes
  - Hives
  - Asthma (chest tightness and wheezing)
  - Itchy hands, throat, or feet
  - Shock or death

You don't necessarily have to stop getting allergy shots if you have a systemic reaction, but you will be monitored more carefully and your provider might suggest steps to reduce the chance of another systemic reaction.

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## What happens after I get a shot?

You must stay in the clinic for 30 minutes and be checked by a nurse after each shot. Most reactions to immunotherapy happen within 30 minutes, and the clinic staff will take care of you if you have a reaction.

## What is the cost for immunotherapy?

There is a charge for each shot and an additional charge every 9 to 12 months for your extract. It is your responsibility to find out whether these charges are covered by your insurance plan, and to pay them if they aren't covered.