

## Special Instructions

- Injections should be given in a medical facility under the supervision of a medical doctor.
- After the injection, wait in the medical facility for a minimum of 20 minutes. Failing to do so two times will cause your injections to be suspended.
- Report any current illness or worsening asthma symptoms prior to injection.
- Inform your doctor if you are taking any beta-blockers (Inderal, Lopressor, Toprol, etc.).
- Bring injectable epinephrine with you.
- Do not forget to keep your regular appointments with your allergist to monitor your progress.

### Fees:

HRMG charges a fee for the bottles of allergy extract. There will be a charge each time an injection is given at the clinic. In the event of an adverse reaction, the patient is responsible for any additional fees associated with the treatment of the reaction.

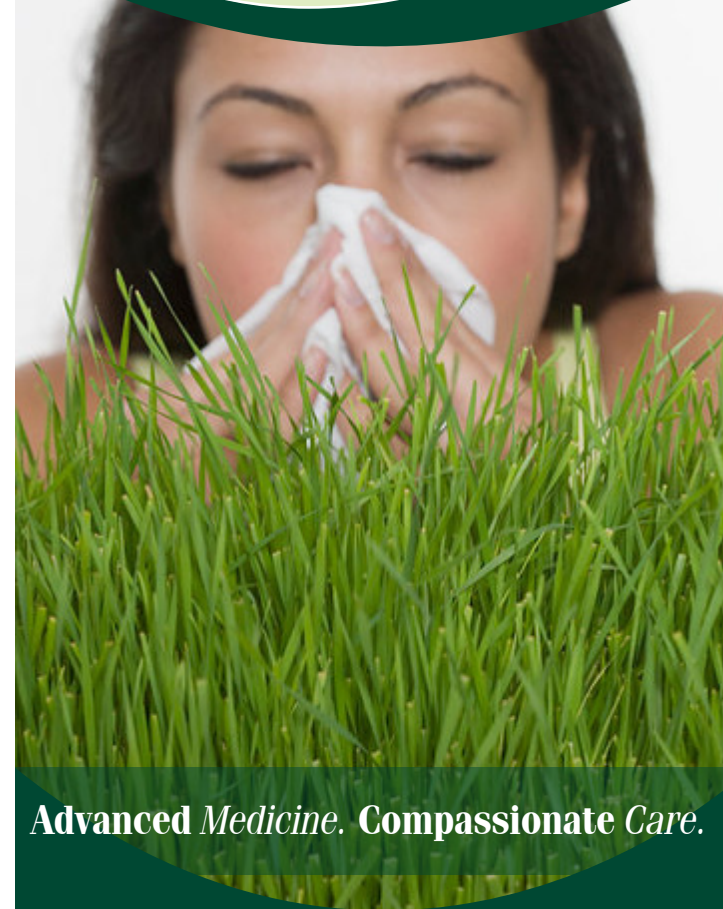


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# Immunotherapy



*Advanced Medicine. Compassionate Care.*

*Allergy/Immunology*

## What is Immunotherapy?

Immunotherapy (IT), commonly called allergy shot, is a form of treatment that can reduce an individual's response to certain airborne allergens such as pollens, house dust mites, molds, etc. It has been shown to adjust the immune system so that few symptoms will be experienced when exposed to allergens. Benefits of this therapy is variable and somewhat unpredictable. It is important to note that immunotherapy is not a cure!

## Who can benefit from immunotherapy?

Immunotherapy is appropriate for patients who:

- have symptoms of allergic rhinitis or allergic asthma with natural exposure to allergens
- who demonstrate specific IgE antibodies (through skin tests or in-vitro tests) to relevant antigens
- have symptoms that are not optimally controlled by pharmacotherapy and avoidance measures or those who wish to avoid long term use of medications

## Immunotherapy Procedure

During immunotherapy a concentrated vial of allergy extract will be prepared containing relevant allergens to which the patient is allergic. A series of diluted vials are then made from the concentrated vial. Treatment is started at a

low dose and is gradually increased on a regular basis until a therapeutic dose is achieved. This dose will vary from person to person. Once the maintenance dose is achieved, injections can be given every 1-4 weeks.

It is important to note that it can take 4-6 months to reach a maintenance dose. This can be prolonged if there is a significant shot reaction or if injections are not received in a timely manner.

If there is no improvement of symptoms after one year, ceasing immunotherapy should be considered. If it is successful, discontinuation should be considered after two consecutive years of relatively symptom free time.

## Adverse Reactions of IT

Immunotherapy is associated with some widely recognized adverse reactions. Most reactions occur within two hours of injection are graded as follows:

### LOCAL

0 no reaction  
1+ rash and nickel-size swelling  
2+ rash and quarter-size swelling. While benign, this reaction requires caution and adjustment of dose.  
3+ rash and swelling larger than the size of a quarter. This can be a forerunner of a systemic reaction and requires caution and adjustment of doses.

### SYSTEMIC

Systemic symptoms can happen without any significant local reactions. Although more common during the build up phase, systemic reactions can happen anytime during immunotherapy. There are a variety of presenting

symptoms including:

*Cutaneous only:* may consist of a rash, such as hives. While not dangerous its presence suggests that more serious reactions could happen in the future if caution is not exercised.

*Generalized pruritus and/or sneezing:* may consist of increased allergy symptoms such as nasal congestion, sneezing or itching (especially in the mouth and throat).

*Pulmonary:* consists of wheezing, shortness of breath and chest tightness. It can be associated with reduced lung function and is of major significance. Immediate action is required.

*Anaphylaxis:* a sensation of "not feeling well" is a frequent prelude. It can cause low blood pressure, swelling of throat, severe wheezing and abdominal cramps. This is a very serious condition and is potentially life threatening.

To minimize the chances of reactions occurring, follow these precautions:

1. Only receive the injections if you are in good health. Inform the physician before injection if you have a fever, wheezing or have any other significant health problems.
2. Because reduced lung function is associated with systemic reactions, peak flow will be measured in some patients.
3. Make sure you have injectable epinephrine (e.g. EpiPen) with you after receiving injection. This is in case a reaction occurs after leaving the office.