



ALLERGY ASTHMA IMMUNOLOGY OF ROCHESTER PC & INFUSION CENTER

Excellence in Allergy and Asthma Care for Children and Adults

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PROGRAM OF ALLERGY INJECTIONS

Allergy shots are made custom for each patient based on their individual allergic sensitivities and are very effective at turning down allergic triggers of chemical release in nasal allergies, sinus inflammation, asthma, skin and systemic reactions, including Mast Cell Activating syndrome. **They reduce baseline level of inflammation, underlying swelling as well as reactions to acute triggers. They are the only treatment that naturally turns off the body's own allergic overreaction and chemical release, rather than long term drugs that just add more chemicals to cover up the chemicals being released!**

For example, in venom allergies, shots reduce risk of allergic systemic reaction from 60%, down to only approximately 3% while receiving! A similar desensitization effect occurs to environmental items identified and placed in the shots. **Initially the desensitization occurs as long as the allergy shots are given, but in the majority of cases the benefit eventually becomes permanent/long term even after stopping!**

Schedule: The shots are slowly built up in increasing increments to induce tolerance, and then once on the top maintenance dose, the frequency is stretched out.

During build up patients have flexibility to come in for shots anywhere from 2-14 days and get a higher dose each time. They can choose different times and dates that work best for them each time. The more frequently someone comes in, the faster they reach effective doses, **but each time they have up to 14 days to come in while building.** (If come more than 14 days from last shot, do not have to start over, but cannot advance)

Once at top dose, **"Maintenance"** is reached, (usually 5-6 months), injections are then typically given 3 weeks for the first year of maintenance, but patients have up to 6 weeks to come in. **The maintenance frequency can be gradually stretched as tolerated to up to once every 6 weeks.**

Patients can adjust and come more frequently if needed during their worst seasons/if having symptoms and custom tailor their schedule.

Shots can often be performed at a primary care office, college health center, another allergist office, or a medical provider office where a provider is physically present at time of injection (even out of town), as long as they meet our safety criteria, and agree to follow our shot schedule and guidelines. The safest way to ensure extracts/venoms are delivered in the appropriate timeframe for viability is for patients to hand-carry extracts/venoms. If unable to hand-carry, the patient is responsible for paying the postage, and someone must be available to receive them. A self-carry form will be completed.

The main reason for postponing an allergy injection is an illness accompanied by a fever. Minor colds, allergic symptoms, etc. are not reasons for missing injections. Generally speaking, a patient well enough to come to the office may receive an injection. If an illness requires antibiotics, you must be on your antibiotic for 24 hours.

Report medication changes and pregnancy ASAP to the nursing staff.

ALLERGY IMMUNOTHERAPY INJECTIONS (Allergy Shots)

Length of Therapy:

1. Clinical benefit usually occurs within 6-12 months after reaching adequate maintenance dose, often sooner, and **gradually improves with continued treatment.**
2. It is recommended patients review progress and control with yearly appointments with one of the allergy/asthma providers, sooner if any concerns. Often medication needs will decrease, and may be able to be weaned off
3. The average patient receives approximately 5 years of therapy and is reassessed with repeat skin test.
4. A majority of patients can stop after 5 years of treatment, and have continued long term benefit after stopping, but there are patients who need/wish to continue longer. **Skin testing should be repeated prior to stopping even if symptom free while on injections!.**

Suboptimal response to Immunotherapy: Patients who do not experience a noticeable decrease in symptoms within 12 to 24 months, or who notice significant improvement and then have some relapse after previous success, may be due to one or more of the following:

1. Inadequate environmental controls
2. New exposures
3. Presence of other contributing medical conditions
4. Inadequate doses of allergens, which can be adjusted in some cases
5. Developing new allergic sensitivities to things not in shots
6. Failure to recognize and include a significant allergen (undertesting by some allergists)
7. Unrealistic patient expectations, resulting in premature judgment of failure
8. Failure of the treatment method itself (rare if all of the above accounted for)

Re-evaluation Schedule:

1. **Should be regularly scheduled by the patient with a provider, preferably yearly,** and whenever there are any problems, questions or concerns that cannot be solved or answered during regular injection office visits.
2. **Prior to considering discontinuation of immunotherapy.** Worst case scenario is building, feeling great and stopping prematurely only to have symptoms return, and need to start over!
3. **With pregnancy-** shots are considered safe in pregnancy, but dose is adjusted and held lower during pregnancy to avoid the unlikely chance of reaction. All medications should be reviewed!

REACTIONS TO INJECTIONS

REACTIONS ARE AN INDICATION FOR DECREASING THE DOSAGE BUT NOT FOR DISCONTINUING INJECTIONS

If reactions occur, please report to this office BEFORE the next injection is due; appropriate advice will be given, and shots modified if necessary.

1. **LOCAL REACTIONS:** Most patients have a slight redness and/or soreness at the site of injection. These are not of any significance and if bothersome can be treated with an ice pack held against the arm for a few minutes at a time or by taking a dose of antihistamine or both. If necessary, an over-the-counter hydrocortisone cream may be applied to the affected area.

Swelling LARGER THAN A FIFTY-CENT PIECE, LASTING MORE THAN 24 HOURS, should be reported at the time the patient comes in for the next injection. This may be an indication for adjusting the schedule slightly or adding a rinse to that shot.

2. **GENERAL REACTIONS:** These reactions are more serious than local reactions. They occur less frequently and usually begin within 30 minutes of receiving an injection. For this reason, every patient MUST wait in the physician's office at least 30 minutes after receiving allergy injections. Since strenuous exercise increases the chance of developing a generalized reaction, it is important that the patient does NOT have increased activity for 1 hour after receiving allergy injections. The most common signs of a general reaction are itching of the skin, hives, itching or plugging of the nose, itching of the throat, coughing, and/or wheezing. If any of these occur or increase in severity after an injection, it should be reported immediately to the nurse who gave the injection.

If a general reaction occurs more than 30 minutes after an injection is given, the patient should take a dose of antihistamine, preferably liquid diphenhydramine (Benadryl). If the symptoms do not decrease shortly thereafter the physician whose office administered the dose should be consulted immediately. In the case of patient doubt or uncertainty the patient should always contact the physician.

IF THE SYMPTOMS BECOME WORSE CALL 911 IMMEDIATELY

All injection patients are required to take an antihistamine preferably 1-2 hours prior to injection. Please inform AAIR nursing staff of all medication use and changes during immunotherapy.

AAIR EXTRACT BILLING POLICY

We participate with a number of insurances (please see patient financial policy for a listing). If you are insured with any of those listed, we will submit your claim and begin preparation of your extract material.

If you are paying privately your extracts must be paid for in advance. For new patients starting shots, extracts will not be prepared until your new patient visit is paid by your insurance carrier and patient balance paid in full. When taking extract/venoms outside of the AAIR practice they must be paid in full before leaving an AAIR site. If being mailed to another practice, there is a shipping fee of \$13 to send via priority mail, paid in advance. All outstanding balances must be paid prior to all extract preparation.

If you have any questions regarding this extract policy, please contact the billing office at 585-442-0150 option 5. All insurance questions should be directed to your insurance carrier. **(If a copay is required this will be an injection administration copay, NOT a full provider copay!)**

Immunotherapy can Provide Lasting Relief

By Linda Cox, MD, FAACAP

Immunotherapy treatment (allergy shots) is based on a century-old concept that the immune system can be desensitized to specific allergens that trigger allergy symptoms. These symptoms may be caused by allergic respiratory conditions such as allergic rhinitis (hay fever) and asthma.

While common allergy medications often control symptoms; if you stop taking the medication(s), your allergy symptoms return shortly afterward. Allergy shots can potentially lead to lasting remission of allergy symptoms, and it may play a preventive role in terms of development of asthma and new allergies.

The Process

Treatment involves injecting the allergen(s), causing the allergy symptoms. These allergens are identified by a combination of a medical evaluation performed by a trained allergist / immunologist and allergy skin or allergy blood tests.

The treatment begins with a build-up phase. Injections containing increasing amounts of the allergens are given 1 to 2 times a week until the target dose is reached. This target dose varies from person to person. The target dose may be reached in 3 to 6 months with a conventional schedule (one dose increase per visit) but may be achieved in shorter period of time with less visits with accelerated schedules such as cluster that administers 2-3 dose increases per visit.

The maintenance phase begins when the target dose is reached. Once the maintenance dose is reached, the time between the allergy injections can be increased and generally range from every 2 to every 4 weeks. Maintenance immunotherapy treatment is generally continued for 3 to 5 years.

Some people have lasting remission of their allergy symptoms but others may relapse after discontinuing immunotherapy, so the duration of allergen immunotherapy varies from person to person.

Risks involved with the immunotherapy approach are rare, but may include serious life threatening anaphylaxis. For that reason, immunotherapy should only be given under the supervision of a physician or qualified physician extender (nurse practitioner or

physician assistant) in a facility equipped with proper staff and equipment to identify and treat adverse reactions to allergy injections.

The decision to begin immunotherapy will be based on several factors:

- Length of allergy season and severity of symptoms
- How well medications and avoiding allergens control allergy symptoms
- Desire to avoid long-term medication use
- Time. Immunotherapy will require a significant time commitment during the build-up phase, and a less frequent commitment during the maintenance phase
- Costs may vary depending on region and insurance coverage. Yet, allergy shots can be a cost-effective approach to managing allergy symptoms.

Allergen Immunotherapy: still working after 100 years

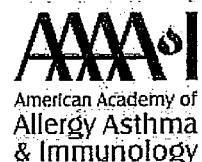
In 1911, both allergen immunotherapy and the electrical ignition system for cars were introduced. Although unrelated, these events share a common outcome. One paved the way for advances in transportation, the other led to advances in the treatment of allergies.

The earliest published successes for allergen immunotherapy were based on the work of two English scientists, Leonard Noon and John Freeman. Recognizing that pollen was the cause of hay fever, these scientists thought that they could induce immunity and tolerance by injecting hay fever patients with the pollen to which they were allergic. This idea was based on the positive results of vaccines that produced protection against infectious disease such as small pox.

Over the years, we've learned much more about allergen immunotherapy including long-term benefits and what protocols are needed to make it very beneficial. Among the most important findings are that immunotherapy can provide long-term symptom relief for years after treatment is discontinued, and that it is a cost-effective approach to treating many allergies.

Research has demonstrated that allergy immunotherapy can be effective in treating:

- Allergic asthma
- Allergic rhinitis and conjunctivitis
- Stinging insect allergy
- Atopic dermatitis



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.



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Immunotherapy Patient Financial Consent Form

Insurance plans consider allergen immunotherapy to be a medically beneficial therapy, and most traditional insurances cover making of your custom vials for allergy shots in full each year.

However, high deductible insurance plans shift costs to the patient until deductible is met. If you have a high deductible or nontraditional plan, please contact your insurance company for costs, and consider FSA/HSA accounts to reduce/absorb costs.

If your plan has a copay with injections, **this will be a much smaller nursing level visit copay, NOT the copay level paid at a provider visit.**

After verifying coverage with your insurance carrier, you may contact our billing office at (585) 442-0150 option 4 to confirm costs prior to committing to treatment.

Your allergy extracts cannot be prepared until we receive your signed consent form. Your signed consent may be returned by fax at (585) 461-6191, by mail, or dropped off at any of our offices. Once your extracts are prepared you will receive a postcard in the mail and can schedule. The first visit includes extra time for teaching and questions.

New extract orders will not be prepared until the new patient visit is paid by your insurance carrier and patient balance is paid in full. Refills will not be prepared until account balances are paid in full. This includes extracts being taken to outside offices for administration. **If you wish to receive your injections at a primary care office, college, or out of town provider part of the year, please verify that they will agree to administer according to our schedule, and contact our staff to verify and coordinate.**

I acknowledge the fact with my signature that I am authorizing the office to bill my insurance company for the allergy extracts made for me, even if, for some reason, I decide not to initiate the allergen immunotherapy program after the extracts have been made. I acknowledge that any costs incurred for this method of treatment that is not covered by my insurance carrier, such as deductibles, co-insurances, or co-pays will be my responsibility. I acknowledge that my allergy extracts will not be prepared until this signed consent is returned to my physician.

Provider Name

Patient Name

Date of Birth

Patient/Guardian Signature

Date

