

Q: What is the purpose of allergy injections?

A: To make the patient less sensitive to unavoidable inhaled substances in the environment to which they are allergic.

Q: Does every allergic person need allergy injections?

A: No. Avoidance is the best treatment for an allergy. However, many substances cannot be avoided adequately to eliminate symptoms. Pollen is a good example.

Q: Do I have to take shots? Can't I be desensitized by oral medications?

A: Oral administration of the allergy extract is not FDA approved. It is currently under investigation.

Q: What is in the allergy injection?

A: The allergens selected to be included in your allergy extract are determined by the patient's medical history and the results of the allergy skin tests.

Q: How do allergy shots work?

A: This is a complex question and the answer is not completely known. However, we do know that after repeated injections, a protective antibody (IgG) is built up in the blood, and the allergic antibody (IgE) usually decreases. Also, the patient's cells become less sensitive to the allergens in the injections.

Q: What is the procedure for giving the allergy injections?

A: The patient is given gradually increasing doses of the allergy extract until a maximum or maintenance dose is reached. Each dose is carefully determined by a dosage schedule prepared for each patient.

Q: How long will it take to see results?

A: Improvement is slow. Usually symptoms begin to improve in three to six months, and you should definitely be better by the end of the first year. Occasionally a patient will have immediate improvement, but this is not to be expected.

Q: How long do I need to take the injections?

A: This varies from case to case depending on the response. Usually it takes about five years on the maintenance dose to have the best chance of long term help. Patients who stop sooner than that nearly always have recurrence of their symptoms and have to begin the injections again. Before you will be ready to discontinue your injections, you should be able to go through at least one year with shots on a monthly basis and have no significant allergy symptoms.

Q: How often must I take the injections?

A: You may receive an injection every three to seven days as long as the injections are well tolerated. Most patients take their shots weekly, but twice weekly injections will build your dose up to the maintenance level twice as fast. If you go longer than seven days between injections, an increase in the dose cannot be given and this delays your build-up. It is always satisfactory to go in early for your next injection as long as the injections are being well tolerated. When the maintenance dose is reached, the interval between injections can usually be lengthened to two weeks.

Q: What about beta-blockers?

A: Patients taking beta-blocker drugs may have a more severe allergic reaction, due to the difficulty of responding to treatment of the allergic symptoms. Since patients taking allergy injections may experience allergic reactions to the injections (usually mild), it is best not to take beta-blocker drugs and allergy injections together. Check with the doctor who gave you the beta-blocker drug and see if another type of drug can be substituted.

Q: What kind of reaction can I expect?

A: 1. NORMAL REACTION: Redness, itching, and swelling may occur on the arm at the site of the injection. A two inch local reaction is considered normal. The reaction may vary depending on the technique of giving the injection. Itching can be minimized by applying firm pressure over the shot site for a full minute following the injection. Reactions greater than two inches should be reported before the next injection is given. Some patients have little or no local reaction.

2. LOCAL ALLERGIC REACTIONS: Redness and swelling in the shot area that is greater than two inches in diameter can occur. Report any such reactions so your dosage schedule can be modified. These reactions usually occur within 30 minutes of the injection. A delayed reaction can occur up to 24 hours after the injection. Report these reactions also.

3. SYSTEMIC ALLERGIC REACTION: On rare occasions, a patient may develop immediate allergic symptoms following an injection. Symptoms may include increased allergy symptoms (sneezing, wheezing, cough, or itching of the eyes, nose, or throat). Other symptoms could be itching of the palms and soles of the feet, hives or in very rare instances anaphylactic shock and death. Severe reactions are unusual, but can be serious. The risk of death is estimated at one out of every

2.5 million allergy injections. A systemic reaction is most likely to occur within 30 minutes of the injection, but can be delayed. Report any worsening of symptoms within the first 24 hours following the injections so that your next dose can be adjusted.

Q: What should I do if I have a reaction?

A: It would depend on the type of reaction:

1. LOCAL REACTION: Apply ice pack, take an anti-histamine, and an analgesic if needed for pain. Report recurring reactions that are troublesome and reactions over two inches in diameter during the build-up period.

2. SYSTEMIC REACTION: Report immediately to the person who gave the shot. An injection of epinephrine may be needed to control symptoms. You should also take a dose of oral antihistamine, but this will not take effect for 30 to 60 minutes. If you have a delayed reaction within twelve hours of your allergy injection, symptoms can usually be controlled with the oral allergy medications you have on hand. Most medications for relief of nasal and eye allergy symptoms contain antihistamine and would be useful in helping the symptoms of a systemic reaction. If wheezing or asthma is provoked, your usual asthma medication should also be taken.

Q: Do I have to wait in the office for 30 minutes after each injection even after I reach my maintenance dose?

A: A systemic reaction can occur after any injection. **WE RECOMMEND YOU PLAN TO WAIT 30 MINUTES AFTER EACH INJECTION.**

Q: Why does the local reaction vary even though I am on the same maintenance dose?

A: Probably because of variation in the way the shot is given. It is impossible to give the shot the exact same way each time. If the extract gets into the muscle, more swelling results. If the injection is too shallow, a positive skin test results with redness and swelling. Some patients can tell a difference in the local reaction when a different person gives the shot. Occasionally a patient's tolerance may change.

Q: What happens if I am late for my injection?

A: During the build-up period, your dose will have to be repeated or decreased depending on the interval since the last shot. The maintenance dose can be repeated on a two to four week interval, depending on your doctors orders. If you are later than that, or have been having troublesome reactions, your dose will need to be reduced.

Q: When can I regularly go longer than two weeks between injections?

A: This depends on the individual case. Usually, patients build up to the maintenance dose, and then go one or two weeks between injections for the next year. After about one year of treatment, we schedule a check up examination, and plans are made for extending the interval.

Q: Does the season of the year make any difference?

A: Sometimes. Patients who have definite flare-ups of allergy symptoms during the pollen seasons are usually helped by moving the shots closer together. It is always permissible to shorten the interval between injections.

Q: Do I take my injection if I am having allergy symptoms?

A: Yes, unless symptoms are severe.

Q: What about fever and infections?

A: Delay your injection until you are free of fever for 24 hours. You do not have to be off antibiotics to have your injection.

Q: Any other precautions?

A: You should wait in the office for 30 minutes following each injection in case a systemic reaction should occur. Avoid strenuous exercise for one hour before and after each injection. Do not take an injection if you are over-heated or physically exhausted.

Q: Do antihistamines or asthma medicines interfere with allergy injections?

A: No.

Q: Should the extract be kept refrigerated at all times?

A: Yes, but it can be out of refrigeration for short periods, as when it is being mailed. On trips, it can be carried in a purse or bag without refrigeration for a few days at a time. Do not expose extract to extremes of temperature.

Q: Why are some vials of extract darker than other?

A: This is normal and varies with the batch of extract and the concentration. It does not affect its potency.

Q: When do I need to be re-evaluated?

A: A complete checkup examination with repeat allergy testing is done after 1 year of treatment. Please request the appointment six weeks in advance. If you do not feel your progress is satisfactory by the time the maintenance dose is reached, a follow-up office visit appointment is advised. Of course, please let us know any time if new problems arise.

Q: May I give myself injections?

A: WE DO NOT ALLOW OR PERMIT PATIENTS TO GIVE THEMSELVES ALLERGY INJECTIONS. WE DO NOT PERMIT ALLERGY SHOTS TO BE DONE AT HOME AND YOU SHOULD NOT RECEIVE ANY ALLERGY INJECTIONS OUTSIDE A MEDICAL FACILITY.

Q: What about Asthma and/or Peak Flow monitoring before my allergy shot?

A: Check with your shot nurse if you are having problems with your asthma or your peak flow reading is below normal level. If you are experiencing any of these problems, you may not be able to receive an allergy shot.

Q: What about pregnancy?

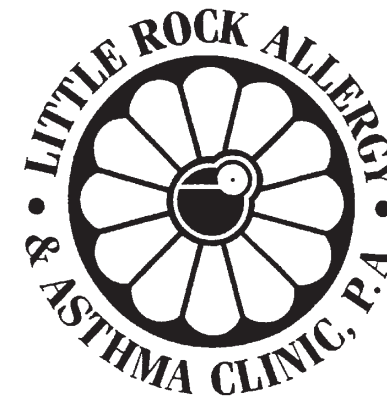
A: You should notify us if you become pregnant while taking allergy shots, so any adjustments may be made to your treatment plan. Build-up injections are not recommended during pregnancy, although maintenance doses are generally acceptable. If you have not reached your maintenance dose, you may elect to stop your allergy injections until delivery.

**IF YOU HAVE ANY OTHER QUESTIONS,
PLEASE LET US KNOW. WE'LL BE GLAD TO HELP.**



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**QUESTIONS
WE'RE
FREQUENTLY
ASKED ABOUT
ALLERGY
INJECTIONS
(IMMUNOTHERAPY)**

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