## Pediatrics Northwest, P.S.



# COMMONLY ASKED QUESTIONS ABOUT ALLERGY IMMUNOTHERAPY

#### WHAT IS ALLERGY IMMUNOTHERPAY?

Allergy immunotherapy (also known as allergy injections or allergy shots) is a treatment where the allergy patient receives regular injections of substances to which the patient is allergic. The "allergy serum" selected for treatment is determined by the sensitivity shown on skin testing and the patient's history and symptoms. Between one and four injections are usually given per session, depending on the number of allergies the patient has.

Immunotherapy is a specific therapy that treats the basic cause of the patient's allergies by reducing sensitivity to those allergens. This treatment results in fewer symptoms after allergen exposure. Immunotherapy is used in patients whose allergy symptoms are severe or are not adequately relieved by the proper use of medications and avoidance measures, or who prefer to reduce the need for regular medication. It may also be used in those whose symptoms are worsening each year to prevent progression to more severe allergic problems.

#### WHAT RESULTS CAN BE EXPECTED?

Improvement in symptoms usually begins after receiving injections for 6 months. Approximately 70-90% improvement in symptoms is expected after the first year. An additional improvement in symptoms is usually derived over the next year. If no significant improvement is realized within 9-12 months, then allergy injection therapy should be re-evaluated.

#### HOW LONG ARE INJECTIONS GIVEN?

There is no completely satisfactory way to determine how long allergy shots should be given. A range of 2-5 years is the norm. However, injections probably should not be stopped until the patient has experienced minimal or stable symptoms for at least one year on monthly maintenance shots.

Once allergy shots are discontinued the duration of benefits resulting from this treatment varies from one individual to another. In many, completing therapy improvements are permanent. In others, mild symptoms return but can be more easily controlled with medication. A minority of patients develop increasing symptoms after stopping shots and require restarting shots with prolonged therapy, usually monthly.

### HOW FREQUENTLY ARE SHOTS GIVEN?

Allergy injections generally begin with a build-up schedule consisting of 28 shots. These are usually given every 3-4 days for the first 18 doses, and then weekly until the maintenance dose is reached. After the maintenance dose is reached, injections are tapered into being given once a month.

#### WHAT IS A MAINTENANCE DOSE?

A very weak concentration of allergy extract is used when allergy shots are first started, and the concentration is slowly increased until a top maintenance dose is reached. The target maintenance dose is one that is high enough to accomplish the desired effect, but not so high as to cause an excessive local reaction (i.e., greater than quarter-size swelling), pain, or worsening of allergy symptoms (itching, sneezing, wheezing, etc.).

After reaching maintenance, allergy injections are usually given an additional week, then once every other week for a month, and then spaced to monthly injections, depending upon the patient's reactivity and clinical response. Certain patients may also need weekly shots during the peak of their pollen season. Note that for most of the 3-5 years that a patient is receiving allergy shots, they are typically receiving monthly injections.

#### WHAT ABOUT PREGNANCY AND IMMUNOTHERAPY?

It is not generally recommended that allergy immunotherapy be started during pregnancy. Should a patient become pregnant while on therapy, our office should be notified immediately. It is appropriate to continue allergy shots during pregnancy in women who are not having reactions because they may lessen the patient's allergic or asthma symptoms. There is no evidence that shots during pregnancy have any influence on preventing allergies in the newborn.

#### HOW OFTEN SHOULD THE PATIENT BE SEEN BY HIS/HER ALLERGIST?

The patient should schedule an immunotherapy follow-up appointment every 3 months for the first year, then 1-2 times per year thereafter, and sooner if the patient is having reactions or difficulty controlling symptoms.

#### WHEN SHOULD THE PATIENT NOT RECEIVE AN ALLERGY INJECTION?

Allergy injections should not be given if the patient is experiencing a severe episode of hay fever or asthma, an acute respiratory infection, or a fever over 100 degrees. Avoid exercise for 30 minutes before and after the injection.

#### WHAT ARE COMMON REACTIONS TO ALLERGY INJECTIONS?

Since allergy shots contain the allergens to which the patient is allergic, they occasionally cause reactions. The symptoms may occur soon after the allergy shot or may occur to a milder degree later in the evening. Patients must be observed for 30 minutes after receiving an allergy shot because approximately 90% of severe reactions occur within the first 30 minutes after injection. Patients should not scratch or rub the arm where the injection has been given as this will irritate the general area and cause more swelling.

- A. Normal Local Reaction: A local reaction may occur over the 24 hours following an allergy shot. Redness, itching, and/or swelling may occur at the site of the allergy shot. Swelling up to ½ inch (nickel-size) and lasting about 24 hours is considered normal. Nasal congestion, sneezing, itching of the nose and eyes, hives, coughing, or wheezing may occur. If this occurs, apply ice and take an oral antihistamine medication. Take any usual medications as previously prescribed. Contact your physician if symptoms do not promptly improve.
- **B.** Large Local Reaction: Swelling larger than a nickel-size with itching, redness, and pain may also occur. If this occurs, apply ice and take an antihistamine. Report local swelling larger than a nickel-size or one that lasts more than 24 hours to the nurse before your next injection so this can be recorded.
- C. Systemic Reaction: On rare occasions, a highly sensitive individual may develop symptoms of a systemic reaction. Symptoms include itching of the throat, nose, palms, hives, flushing, feeling warm, sneezing, runny nose, coughing, sneezing, and/or chest tightness. If any of these symptoms occur within the first 30 minutes following an injection, report them immediately to the nurse. If this occurs on the way home, take an antihistamine and/or wheezing medication if easily available, take epinephrine if the reaction is severe, and return to the nearest emergency medical facility for appropriate treatment.

### \*\*IMPORTANT\*\*

You must report ANY UNUSUAL SYMPTOMS OR A SIGNIFICANT DELAYED ALLERGIC REACTION BEFORE YOU RECEIVE YOUR NEXT ALLERGY SHOT so that it can be recorded, and proper dose adjustments can be made. Also, if you are receiving your allergy injections outside of our office, confirm when starting the injections that the medical facility is appropriately prepared to handle severe reactions.