Allergy & Asthma Center of East Orlando

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IMMUNOTHERAPY – HYPOSENSITIZATION – ALLERGY SHOTS

Allergic hyposensitization therapy is a well-established form of medical treatment that attempts to decrease the allergy sufferer's allergic sensitivity. It entails giving the patient repeated injections of the allergenic materials to which he is most sensitive. The offending substances are determined by the patient's history and skin testing.

The allergic reaction results from binding of the allergen (e.g. pollen) with the allergic antibody (IgE) produced by the patient. This binding occurs on the surface of the mast cell that lines the nose and lungs. As a result of the binding, the mast cell in turn releases biochemical mediators, such as histamine, which are responsible for causing the typical allergy symptoms – sneezing, congestion, nasal discharge, itchy eyes, wheezing, etc. Allergic hyposensitization therapy will decrease the amount of IgE produced as well as stimulate the production if IgG, the blocking antibody. The blocking antibody also combines with the allergen, but does not activate mast cells. Consequently, histamine is not released and symptoms are prevented.

Hyposensitization is used in patients whose allergy symptoms are severe and are not adequately controlled despite proper medication and avoidance measures. It may also be used by patients whose symptoms are year-round and would like to minimize their need for medication, or in patients whose symptoms are gradually worsening, and wish to prevent further progression. It is specific therapy, which deals directly with the cause of the patient's problem – his allergy. This is in distinction to medication that simply treats allergic symptoms.

Injections are started at small doses and are increased incrementally until a maintenance dose is reached. Occasionally patients experience reactions from the injections that may temporarily prevent dosage increase. These reactions usually manifest as localized swelling at the injection site, and are treated with a dosage readjustment and antihistamines. Weekly injections are continued for the first year, then gradually decreased to monthly injections. An occasional missed injection is of little consequence; if an extended time elapses between injections, dosage reduction is required.

During the first year, patients usually experience at least 50% improvement in symptoms without the use of medication. The improvement is gradual and immediate results should not be anticipated. Additional improvement is gained during subsequent years. If after the first year the patient has not experienced significant symptom control, the desensitization program may need to be reconsidered.

While taking allergy injections, the patient requires periodic follow up visits every 6 – 12 months. Hyposensitization is usually stopped after 4 years, although this decision needs to be individualized. Once injections are discontinued, people will either continue to experience symptom control indefinitely, or may experience the return of mild symptoms. Some patients will again develop increasing symptoms and may require resumption of their desensitization program with more prolonged treatment.

Although allergy injections are regarded as safe, we do need to exercise certain precautions. It is important to realize that the allergy patient is being injected with a

material to which his body is highly sensitive. Consequently, one must respect the ability of the body to respond to an allergy injection in a potentially adverse fashion. Reactions to injections usually manifest as localized swelling or mild systemic reactions – sneezing, itchy eyes, etc. Although uncommon, more severe systemic reactions may also be experienced at any time during immunotherapy. Such reactions may include difficulty breathing, fall in blood pressure, and may be life threatening. For this reason, patients must take their allergy injections in a medical facility while a physician is present. Similarly, patients must wait in the office for 30 minutes after the injection as most reactions usually occur within this time period. We do not allow allergy injections to be given at home or given by non-physician health professionals without immediate access to complete emergency equipment and proper training in its use.

OTHER COMMENTS

Immunotherapy and Medication: Beta Blockers (i.e., Inderal), a commonly used class of medication should be avoided in individuals taking allergy injections. Most other medications can be taken safely during immunotherapy. You must notify this office if you have been prescribed a beta-blocker.

Immunotherapy and Pregnancy: Immunotherapy has been documented to be safe and effective during pregnancy. It will neither predispose the infant to developing allergies nor will it prevent them from occurring. Consequently, we recommend continuing allergy shots during pregnancy; however, if not already taking injections, immunotherapy is deferred until the pregnancy is completed.

Immunotherapy and Exercise: To prevent possible reactions, you may not exercise for 1 hour before or 2 hours after your injection.

Immunotherapy and Colds: Although their symptoms are similar, a cold is a viral infection of the nose and not an allergy. Consequently, immunotherapy will not prevent colds.

If you are not feeling well, please notify the office before reporting for your allergy injections. You may be advised to defer your injection for several days.

For shot patients who are minors (less than 18 years old), we must have a parent or legal guardian in the office while the patient receives their injections, as well as for the required waiting period. If you are unable to supervise your child for their injection, you may sign a consent in our office allowing another adult to act in your place. If your child is 16 or older, you may sign a consent for them to supervise themselves for the injections.

Certain hours have been designated for allergy injections. Appointments for injections are not necessary during these hours. To minimize your waiting time, please notify the office on the day you wish to come in. Shots need not be given on the same day each week. However, if you have had any difficulty in tolerating your previous dose or you have any questions about receiving your injection, please contact our office directly at (407) 380-8700.

Please do not hesitate in contacting our office if you should have any further questions regarding allergy injections.

APPROXIMATE COST OF ALLERGY VACCINE THERAPY

TREATMENT SET: Allergy vaccine is a mixture of extracts of specific allergens to which you are allergic, which is prescribed by your physician. Allergy Vaccine is mixed individually for each patient, depending on your history and skin test results. Your prescription may contain one or more treatment set(s) of allergy vaccine. Each initial treatment set consists of 4 vials of vaccine which are $180/vial* (for a total of $720/treatment set), which is charged to your insurance company (if applicable) when formulated. Your initial treatment set(s) will last approximately nine months; however, during the first year, an additional vial(s) ($180* each) may be necessary.

Your initial set of allergy vaccine will be filed with your insurance company. You will be required to pay your portion of what the insurance company does not pay (according to the benefits we were given by your insurance company), when receiving your first injection.

Each vial of vaccine has an expiration date. The expiration date depends on the dilution of the vaccine. Please understand that if you are not consistent in receiving your injections, or have reactions that require us to repeat several doses, certain dilutions may expire before being used. This may require a redilution of a vial at an additional minimal charge.

Charges for HYMENOPTERA Venom Vaccines (Honey Bee, Wasp, White Faced Hornet, Yellow Hornet, and Yellow Jacket), and Fire Ant, will vary according to market price, and with the particular vaccine required.

In addition to the above cost to mix your allergy vaccine, there is a charge incurred for the administration of your allergy injection each time you come in for your injection. This also will be filed with your insurance company, and we do ask that you pay your portion of this cost each time you receive your allergy injection.

If you would like your vaccine mailed to another facility, we ask that you complete a form with the physician's name, address, phone number, and your signature. All vaccines that are mailed require prepayment (according to your insurance benefits). For your initial set and all refills, we ask that you prepay any portion not covered by your insurance company. If you do not have insurance you will be asked to pay for your vaccine in full prior to mailing your extract. Our policy is that we mail all vials individually and directly to outside medical facilities.

Please do not hesitate to contact our office should you have any questions regarding your insurance benefits, and/or your financial responsibility.

*Fees are subject to change without notice.

WARNING

Certain medications known as "Beta-Blockers" may make allergy injections unsafe. These medications are used to manage a variety of conditions including angina (chest pain), high blood pressure, headaches, glaucoma (increased eye pressure) or essential tremor (trembling). It is impossible to accurately predict the degree of risk in an individual patient on beta-blockers; therefore, AVOIDANCE is the only reliable preventative strategy.

Below is a fairly complete list of beta-blockers presently on the market. Check with your primary care physician if you are unsure about any medications you are taking. If you are presently taking a beta-blocker, DO NOT TAKE ANY MORE ALLERGY INJECTIONS and call this office for further information.

Brand/Generic Name	*Brand/Generic Name*
AK-Beta (levobunolol)	Normodyne (labetalol)
Betagan (levobunolol)	Ocumeter (timolol)
Betapace Tablets (sotalol)	Ocupress (carteolol)
Betaxon (levo-betaxolol)	Optipranolol (metipranolol)
Betimol (timolol)	Sectral Capsules (acebutolol)
Betoptic (betaxolol)	Sorine (sotalol)
Blocarden (timolol maleate)	Tenoretic 50 & 100 (atenolol)
Brevibloc Injection (esmolol)	Timolide Tablets (timolol maleate)
Cartrol Filmtab Tablets (carteolol)	Timoptic (timolol maleate)
Coreg (carvedilol)	Toprol-XL (metoprolol)
Corgaard (nadolol)	Trandate (labetalol)
Inderal Injectable & LA (propranolol)	Visken (pindolol)
Inderide LA (propranolol)	Zebeta Tablets (bisoprolol)
Kerlone (betaxolol)	Ziac (bisoprolol)
Lopressor HCT (metoprolol)	
Nadolol Tablets (nadolol)	