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**What is Immunotherapy (Allergy Shots)?**

Immunotherapy is a treatment used to relieve allergy symptoms of hay fever or allergic asthma by administering injections of substances such as pollens, mold spores, dust mites, animal dander, or insects to which an individual has been found to be allergic by skin testing. The mechanisms of its effect are the subject of ongoing research. However, immunotherapy initiates processes that seem to "turn off' the abnormal immune reaction that we term "allergy".

When an allergic person is exposed to an allergenic substance (such as cat dander), he or she may develop symptoms of sneezing, runny nose, nasal congestion, watery eyes, chest tightness or wheezing. Various cells that line the nose and the airways actually release chemicals termed mediators that cause these symptoms. An inflammatory reaction accompanies this process and leads to persistent symptoms. Immunotherapy probably works to interfere with the actions of these cells and to thereby diminish the effects of the chemical mediators that cause allergic symptoms. Allergy Shots are used to decrease your sensitivity to allergy-causing substances so that exposure to the offending allergens (pollens, dust, molds, etc.) will result in fewer symptoms. This does not mean that allergy shots are a substitute for avoidance of known allergens which is the treatment of choice.

**Indications**

To qualify for allergy shots, there must be documented allergy to substances in the environment that you cannot avoid. Allergy shots should generally not be given for avoidable things such as pets. Documentation of allergy can be either in the form of a positive skin test or a positive blood test (RAST/ELISA). In addition to demonstrable allergy by one of the above tests, symptoms such as hayfever or asthma should occur on exposure to the suspected allergens. Due to the inherent risks of allergy shots, medical management should usually be tried first.

**Efficacy**

Improvement should not be expected immediately. It usually requires 9-12 months before any relief of allergysymptoms is noticed and it may take 18 months for the full benefits to occur. About 90% of allergic individuals on immunotherapy get significant improvement of their symptoms. This means that symptoms are reduced and not necessarily that they go away completely. During this time it is important that you **continue taking your daily allergy medications as prescribed.**  Your physician will instruct you at future follow ups when it will be appropriate to adjust or discontinue your allergy medications.

**How are injections given and for how long?**

Allergy injections are usually begun at a very low dose. During the "build up" phase, increasing doses of allergy injections are given once or twice a week until a predetermined target or "maintenance" dose is achieved. This usually takes 4-6 months (24-36 injections). Once this maintenance dose is reached, shots are usually administered weekly for one year and gradually spaced to monthly over the ensuing several years of treatment. Clinical improvement with immunotherapy usually occurs in the first year. In a small percentage of patients, there is no improvement and, in this case, immunotherapy is discontinued. However, if symptoms do improve, injections are usually continued for at least 4 to 5 years of maintenance therapy. At that time, you and your doctor will make a joint decision about whether to gradually taper and discontinue injections or to continue treatment.

**Reactions to Immunotherapy**

Local reactions (swelling, itching or tenderness at the site of the injection) may occur in most patients receiving injections. These local reactions usually subside in a day or less.

Large local reactions and generalized (systemic) reactions may occur in 1-5% of patients receiving allergy injections and usually occur during the build-up phase, although they can occur at any time during the course of treatment. These reactions necessitate a dosage adjustment. These generalized reactions may consist of any or all of the following symptoms: itchy eyes, nose or throat, runny nose, nasal congestion, sneezing, tightness in the throat or chest, coughing, wheezing. Also, some may experience lightheadedness, faintness, nausea and vomiting, hives, and, under extreme conditions, shock. Reactions can be serious but rarely fatal.

Allergy injections should be **administered at a medical facility** with a physician present since occasional reactions may require immediate therapy. As an added precaution, you must wait in the medical facility where you receive your injection at least **30 minutes** after each injection so that in the unlikely event of a generalized reaction you can be quickly tested and observed, thereby decreasing the likelihood of a more severe reaction.

**Treatment of Reactions**

Simple local reactions that consist of swelling of the arm, redness or tenderness at the site of the injection are best handled with simple measures such as local cold compresses or the use of medications such as an antihistamine or aspirin. However, at the first sign of a systemic reaction, adrenalin (epinephrine) is usually given to counteract the reaction. Severe reactions that include chest symptoms are treated in the same way any asthmatic attack would be treated.

If, after you leave our facility, you experience a generalized site reaction from an allergy injection no bigger than a 50 cent piece, do the following:

\* Antihistamine

\* Over the counter Hydrocortisone cream, apply periodically to injection site

\* Cold compresses at the injection site

\* Make sure to let the shot administering office know that you're experiencing site reactions

If, you are experiencing any other kind of reaction after receiving allergy injections, such as: **hives, lip or tongue swelling or mouth itching and/or difficulty breathing or swallowing**, please call **Coastal Allergy** & **Asthma or proceed to the nearest emergency room (ER).** Before additional injections are given, or for questions or assistance, please call us at (912) 354-6190.

**Fees**

Coastal Allergy & Asthma charges a fee for the bottles of allergy extract. In addition, there is a clinic fee each time an injection is given at Coastal Allergy & Asthma. Ask at the front desk for the exact charges as these may change with time. Fees may differ at other medical care facilities. You should ask about payment policies at any medical facility before receiving shots there.