(SCIT) SUBCUTANEOUS IMMUNOTHERAPY (ALLERGY SHOTS)

Subcutaneous Immunotherapy (SCIT) is a form of SIT, whereby small doses of specific allergens are administered by injection, and refers to what is commonly known as an "allergy shot". It currently is the standard in allergen desensitization and provides symptomatic relief for patients with allergic rhinitis and asthma. With an evolution of nearly 100 years of practice, SCIT succeeds in abating allergy symptoms through modification of the underlying immunologic mechanism.

Research has shown that improvements can be seen as early as 3 months after initiation of therapy, and those benefits are long-lasting after 5 years of therapy, even after immunotherapy has been discontinued.[2] In addition, it has been shown that SCIT can also prevent the development of new allergies and the onset of asthma. It is now recommended that allergy immunotherapy should be considered as part of the primary therapy for allergic rhinoconjunctivitis and mild to moderate controlled allergic asthma.

Subcutaneous Immunotherapy, as a form of long-term treatment, has been shown to decrease symptoms for many people with allergic rhinitis, allergic asthma, conjunctivitis (eye allergy) or stinging insect allergy.

WHO CAN BENEFIT FROM ALLERGY SHOTS?

Children and adults can receive SCIT, but it is not recommended for children under the age of five. Young children may have difficulty in cooperating with receiving SCIT, and also in describing any adverse symptoms they may experience. If you are an older adult and considering allergy shots but have medical conditions such as severe asthma, high blood pressure or other serious illnesses, discuss the therapy with your allergist or physician first.

Regardless of your health condition, you and your allergist or physician should discuss Subcutaneous Immunotherapy (SCIT), including:

- the type of symptoms you are having, the severity and whether they are seasonal or year-round
- whether medications and/or environmental controls are helping your allergy symtoms
- any concerns about long-term medication use
- the time available to receive treatment (allergy shots require a significant commitment)
- the cost involved, which may vary depending on the type of shots prescribed and individual insurance coverage

SCIT is not used to treat food allergies. The only option for people with food allergies is to strictly avoid that food.

HOW DO ALLERGY SHOTS WORK?

Subcutaneous Immunotherapy works very much like a vaccine. Your allergist/physician will give gradually increasing doses of injected amounts of allergens, leading the body to develop immunity or improved tolerance to the allergens.

There are two types of schedules for allergy shots. One is called Preseasonal Schedule for pollen allergies where shots are given weekly for only a few months before the onset of the season for trees, grasses or rag- weed. The other is called Perennial Schedule where shots are given throughout the year for environmental allergies such as dust mites, animal dander and moulds which cause symptoms that are not season dependent.

Allergy shots for the Perennial Schedule occurs in two phases:

1. Build-up Phase. This involves receiving injections with increasing amounts of the allergens once a week for about three to six months.
2. Maintenance Phase. This begins when the effective maintenance dose has been reached, based on your allergen sensitivity and response to the Build-up Phase. During the Maintenance Phase, the time between treatments is longer, normally ranging from two to four weeks.

You may notice a decrease in symptoms as early as 3 months during the Build-up Phase, but it may take as long as 12 months on the maintenance dose to notice more improvement. The recommended duration of maintenance treatment is generally three to five years. The reason for this is because it has been shown that the improvement from allergy shots will persist even when they are stopped after that duration, and can even prevent the development of new allergies and the onset of asthma.

CAN ANYONE ADMINISTER MY ALLERGY SHOTS?

Subcutaneous Immunotherapy should be supervised by a licensed health care provider with special training in immunotherapy, conducted in a facility equipped with proper staff and provisions to identify and treat any potential adverse reactions to allergy injections.

ARE THERE ANY RISKS ASSOCIATED WITH SCIT?

The most common reaction is redness and swelling at the injection site. This may happen immediately or several hours after the treatment and may last up to 24 hours. In some cases, especially in the Build-up Phase, symptoms may include increased allergy reactions such as sneezing or nasal congestion. These local reactions at injection sites and transient increases in symptoms during the Build-up Phase are not considered to be serious.

Serious reactions to SCIT 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 injection which is why it is recommended to stay in your doctor's office for at least 30 minutes after you receive allergy shots in case of any adverse reactions.

WHAT PRECAUTIONS SHOULD I TAKE FOR ALLERGY SHOTS?

For patients with local reactions, an antihistamine may help when taken on the morning of the injection. It is also recommended that you don't exert yourself for a few hours after an injection. Allergy shots should be postponed if you are sick especially if you have a fever or if you are having severe, uncontrolled problems with asthma. If you have missed allergy shots, the dosage and strength may need to change depending on how long you have missed. Please discuss precautions with your doctor if anything like this happens or if you have questions.

WHEN SHOULD I NOT TAKE ALLERGY SHOTS?

- if you have severe, uncontrolled asthma
- if you are taking blood pressure medications called Beta Blockers (please consult with your doctor)
- if you have any severe medical condition that puts you at risk towards an unstable situation (for example cardiac conditions)
- if you have had previous severe anaphylactic reactions to allergy shots

Allergy shots may be continued if you get pregnant, but should not be started during pregnancy.

WHAT IF I STILL DON'T FIND RELIEF OF MY SYMPTOMS?

The efficacy 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 too soon. If you have not seen improvement after 1-2 years of maintenance therapy, your physician will work with you to discuss other treatment options.

A failed response to allergy shots may be due to many factors:

- inadequate dose of allergen in the allergy vaccine
- missing allergens not identified during the allergy evaluation
- allergens may have changed since the previous evaluation
- high levels of allergen in the environment
- significant exposure to non-allergenic triggers such as tobacco smoke
- poor patient compliance