WHAT IS ALLERGEN IMMUNOTHERAPY AND HOW DOES IT WORK?

Allergen immunotherapy (AIT) is a type of treatment used to reduce allergy symptoms and improve quality of life. This is done by giving regular and repeated doses of an allergen (a substance that causes allergies) or allergens. Examples of allergens that you can inhale include pet dander, pollen, ragweed, grass, and dust mites. By taking gradually increasing doses of these allergens, your immune system builds up a tolerance and becomes less sensitive.

WHO SHOULD GET ALLERGEN IMMUNOTHERAPY?

If you are 5 years and older, experience symptoms from allergic rhinitis, and have positive allergy test results, you may be a candidate for AIT. Allergic rhinitis (hay fever) is a condition in which the inside of the nose becomes inflamed and irritated. This happens when your body’s immune system reacts to an allergen. Symptoms can include sneezing, itchy or runny nose, and nasal congestion (blockage). If you are unable to manage your symptoms with regular medication and prefer a treatment with lasting benefits, AIT may be the right treatment option for you.

WHAT ARE THE DIFFERENT IMMUNOTHERAPY TREATMENT OPTIONS?

For inhalant allergens, AIT is usually administered using one of two methods:

- Subcutaneous immunotherapy (SCIT), which involves placing allergens under the skin with a needle
- Sublingual immunotherapy (SLIT), which involves using drops or tablets placed under the tongue

Both treatment options have differences in associated risks, benefits, efficacy, convenience, and cost. Your health care providers should discuss the available options to determine what works best for you.

WHAT ARE THE BENEFITS COMPARED TO OTHER TREATMENT OPTIONS?

Unlike other treatments, AIT can lead to lasting benefits even after stopping treatment. This is because it changes the way your body reacts to allergens. This can reduce the need to take other medications which provides cost savings and convenience. There is also evidence that AIT can prevent the onset of new allergies, asthma, and reduce asthma symptoms.

HOW DO YOU DETERMINE WHICH ALLERGENS TO TREAT?

Your health care provider will identify allergens based on an assessment of several factors. This includes your symptoms, medical history, the season of symptoms, and allergy test results. Based on these factors, your health care provider will determine which allergens to include in your treatment regimen that deliver the best possible results.

WHAT IF I HAVE MULTIPLE ALLERGIES?

You can take AIT to treat multiple allergies at the same time. Your health care provider may choose to treat one or a few allergens or multiple allergens. Studies show that both methods are safe and effective. Treating with even a few allergens can change your body’s response to other allergens. There is currently no evidence that show if one method is better than the other.
HOW LONG DOES IT TAKE TO SEE THE BENEFITS?

You can expect to see a decrease in symptoms in the first year of AIT. It is generally recommended to continue taking doses for at least three years for maximal benefit. This period of time is believed to induce benefits that continue for at least one year after stopping treatment. Currently, there are a limited number of studies that show how long you should stay on AIT and if you will stay symptom-free after stopping treatment. The decision to continue or stop as well as the associated risks and benefits should be discussed with your health care provider.

WHAT ARE THE RISKS?

Both SCIT (shots) and SLIT (tablets or drops) are considered safe and effective treatment options. However, they can induce a severe and potentially life-threatening reaction - called anaphylaxis – on rare occasions. Anaphylaxis can affect different parts of your body. Signs and symptoms can range from mild to severe. Your healthcare provider should know how to recognize and treat this rare side effect if it happens.

Before receiving AIT, your health care provider should assess your asthma status and discuss all potential risks. This includes the signs and symptoms of anaphylaxis and how to use epinephrine, which is the main treatment for anaphylaxis.

WHO SHOULD NOT GET ALLERGEN IMMUNOTHERAPY?

There are specific situations where AIT may not be suitable due to increased risks of adverse events. Before starting or continuing AIT, you should discuss with your health care provider if you:

- Are pregnant
- Have uncontrolled asthma
- Are unable to tolerate injectable epinephrine
- Use beta-blockers
- Have a history of anaphylaxis
- Have a weakened immune system
- Have eosinophilic esophagitis (EoE). Worsening of EoE is a concern only for SLIT (tablets or drops).


ABOUT THE AAO-HNS/F

The American Academy of Otolaryngology-Head and Neck Surgery (AAO-HNS) represents approximately 13,000 specialists worldwide who treat the ear, nose, throat, and related structures of the head and neck. The AAO-HNS Foundation works to advance the art, science, and ethical practice of otolaryngology-head and neck surgery through education, research, and quality measurement.