

UNDERSTANDING ALLERGY IMMUNOTHERAPY



Provide Allergy Patients Another Option for Relief

How many of your patients suffer from allergies?

ALLERGIES ARE A BURDENSOME CONDITION FOR MANY PEOPLE IN THE US.

In fact, allergies affect nearly **50 MILLION** people throughout the United States.¹

What Is Allergy Immunotherapy?

Allergy immunotherapy (AIT), along with allergen avoidance and symptomatic pharmacotherapy, is considered a useful treatment modality in the management of allergic conditions.²

By providing AIT at your practice, you can offer patients another proven treatment option that may lead to relief of allergy symptoms.³



Complete avoidance

For most patients, although advisable, avoidance of the allergic trigger may be impossible.⁴



Symptomatic pharmacotherapy

Pharmacotherapy options can offer effective, though temporary, allergy symptom relief.⁵



Allergy immunotherapy (AIT)

Research suggests that AIT may provide modulation of the immune system.^{2,6,7}

Patients are administered gradually increasing doses of symptom-causing allergen(s) to train the immune system to reduce the allergic response when exposed to the trigger allergen(s).⁶

How Does AIT Work?

AIT is a long-term treatment for allergies²

Researchers believe that over time, allergy immunotherapy helps the patient's immune system develop resistance to allergens and reduces their ability to cause allergic symptoms.^{2,8,9}

It is believed that the incremental increases of the allergen(s) given to the patient causes¹⁰

- ✔ **The immune system to become more tolerant to the allergens**
- ✔ **A reduction in allergy symptoms when the patient is exposed to the allergens in the future**

Although the precise mechanism of action of AIT is unknown, research suggests there is the potential for long-term sustained relief of allergy symptoms. Randomized, double-blind, placebo-controlled trials demonstrate efficacy of AIT for up to 3 years.^{2,11-16}

**AIT is a
long-term
treatment for
allergies.²**



Is AIT Right for Your Allergy Patients?

Allergy Immunotherapy is appropriate when an allergy is established and the patient cannot avoid exposure to the allergen. Allergenic extracts are approved for use in allergy immunotherapy for allergic rhinitis, conjunctivitis and allergic asthma. Please see product specific packaged inserts for complete indications.^{15,17,18}

Treatment with allergenic extracts has been shown to reduce allergic symptoms of a perennial or seasonal nature such as^{15,17-21}

Rhinitis



Conjunctivitis



Immediate Hypersensitivity



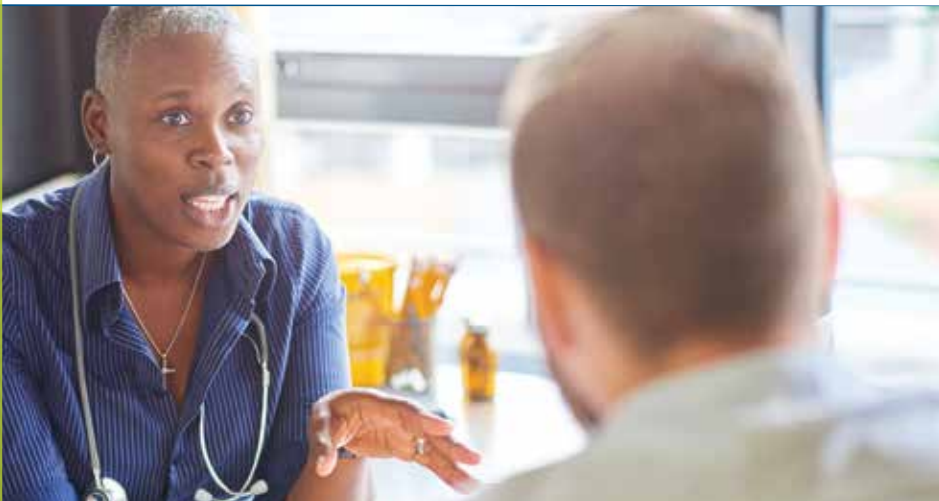
Additionally, across multiple randomized trials and meta-analyses, AIT has been shown to^{7,18,22-25}



Help Control Symptoms



Help Reduce the Need for Other Medications



What Safety Information Should I Know About AIT?

AIT has an established safety profile in children and adults.^{5,7,26,27}

The administration of AIT has been associated with severe, life-threatening systemic reactions, including anaphylaxis and death.^{15,28,29}

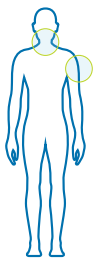
Some common systemic reactions of AIT include pruritus, nausea, vomiting, and urticaria.

Other reactions are dependent on the route of administration, either subcutaneous or sublingual, the most common of which are listed below.^{15,17-21,28,29}

Subcutaneous Immunotherapy

Sublingual Immunotherapy

Local reactions



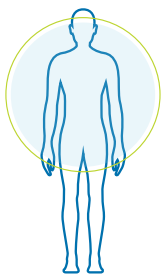
Injection site reactions:

generalized erythema
itching
swelling
tenderness
pain

Reactions of the oral cavity:

oral pruritus
throat irritation
ear pruritus
mouth edema
tongue pruritus
cough
oropharyngeal pain
oral paresthesia
swollen tongue

Systemic/Severe reactions



rhinitis
asthma
laryngeal edema
wheezing
hypotension
angioedema
chest tightness
syncope
shock
loss of consciousness
death

severe hypersensitivity
severe laryngeal edema
violent coughing
marked dyspnea
dysphagia
pharyngeal edema

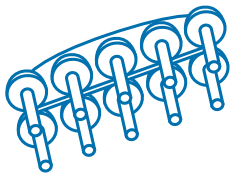
Always refer to the package insert of the particular AIT product for applicable contraindications, drug interactions, and other important safety considerations.

What Allergy Testing Options Are Available?

Patients should always be diagnosed before administering AIT. A definitive diagnosis of allergies depends on the results of allergy testing—the allergy must be confirmed with either skin or blood (*in vitro*) testing.⁷

Skin Tests

Skin tests are usually placed on the forearm or back³⁰



Prick/puncture skin test

One drop of diluted allergen is placed on the skin, and pricked or punctured into the skin²⁷



Blood (*In Vitro*) Test

- *In vitro* test: a small volume of blood is tested for a number of allergens and produces quantitative results for all test allergens²⁷
- The test measures circulating immunoglobulin E (IgE) antibodies produced against substances that individuals inhale, ingest, or with which they come in contact^{31,32}



***In vitro* allergy testing may be a good option for patients who^{31,32}**

- Are extremely sensitive to multiple skin pricks
- Have dermatographism
- Are unable to discontinue antihistamines, which may affect the results of skin testing
- Have a history of anaphylaxis or systemic reactions to allergens

You should not move forward with AIT treatment after testing in patients with⁷

- Negative test results
- Positive test results that do not correlate with suspected triggers, clinical symptoms, or exposure

What Allergy Immunotherapy Treatment Options Are Available?

You can determine the appropriate allergy immunotherapy option with which to treat your patient based on^{7,33}

- The patient's **clinical history**
- Knowledge of possible **environmental exposures**
- The results of tests for specific **IgE antibodies**
- A careful consideration of the patient's **treatment preference**

Subcutaneous AIT, also known as an allergy shot, is the most common form of AIT³⁴

Allergy shots, or injections, are given in increasing doses of an allergen mixture, customized for the patient, composed of the relevant allergen(s) to which the patient is sensitized.³⁴



The injection is administered in the office

where acute allergic reactions can be diagnosed and treated³⁵

Patients are observed for 30 minutes

for signs of severe systemic or severe allergic reaction³⁵

The most common schedule is for increasing doses administered 1 to 3 times a week,

with a maintenance dose reached within 3 to 6 months. Use your clinical judgment to determine the right treatment regimen⁷

Sublingual AIT tablet is another treatment option

The patient places a tablet that contains a small dose of the relevant allergen(s) to which they are sensitized to under the tongue.^{12,34}



The first sublingual dose is taken in the office

where acute allergic reactions can be diagnosed and treated¹³



Patients are observed for 30 minutes

for signs of severe systemic or severe allergic reaction¹³



Subsequent sublingual doses may be taken at home

if the patient tolerates the first dose³⁶



Allergy Immunotherapy Tablets

for grass and ragweed allergies that dissolve under the tongue and are taken at home.

Consider AIT for Patients³⁷

- With **confirmed IgE-mediated disease** (symptoms on exposure to relevant allergen supported by a positive test to that allergen)
- Who are **not satisfied** with drug treatments
- Who are **unable to avoid allergens**

For whichever treatment option you and your patient decide is appropriate, remember to **give clear guidance about**³⁶

AVOIDING
treatment
interruptions

MANAGING
adverse
reactions

WHEN
to consult a
physician

Who May Benefit From AIT?



Appropriate AIT patients may be dissatisfied with **symptomatic pharmacotherapy.**⁷

Appropriate candidates for AIT are patients

- Who require high medication doses, multiple medications, or both to maintain control of their allergy⁷
- Who may be dissatisfied with symptomatic pharmacotherapy⁷
- Who want a treatment that may reduce the long-term use of symptomatic pharmacotherapy⁷
- Who are unable to avoid confirmed allergens⁷

Patients who are not appropriate candidates are those

- With severe, unstable, or uncontrolled asthma⁷
- Who are receiving treatment for cardiovascular disease⁷
- Who may be at high risk for (serious) systemic reactions⁷

Always refer to the package insert of the particular AIT product for applicable contraindications, drug interactions, and other important safety considerations.

Talking To Your Patients About AIT

Before prescribing AIT, talk to your patients about⁷

- 1 Benefits, risks, and costs**
- 2 Expected onset of efficacy**
- 3 Duration of treatment**
- 4 The importance of adhering to the immunotherapy schedule**



Helpful tips for discussing AIT

Active listening and **open communication** may help facilitate conversations

Using lay terminology can help patients better **understand your discussions**

During the conversation, remember to consider your patient's



Health insurance coverage



Travel time to appointments



Concurrent **health problems**



Perceived effectiveness of treatment, or perceived lack of need to continue treatment



Experience with any **adverse events due to AIT**

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UNDERSTANDING ALLERGY IMMUNOTHERAPY

Do You Have Patients Who Suffer From Allergies?

By providing allergy immunotherapy at your practice, you can offer patients another treatment option that may lead to relief of allergy symptoms.²

You may have questions about allergy immunotherapy, such as

- ✔ **WHAT IS Allergy Immunotherapy?**
- ✔ **HOW DOES Allergy Immunotherapy Work?**
- ✔ **WHO MAY BENEFIT From Allergy Immunotherapy?**

The answers to these important questions, and more, can be found within this brochure.

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