

## About VIT

Venom immunotherapy (VIT) is a safe, effective vaccination program. During VIT, an allergist administers venom extract in increasingly stronger doses to an allergic individual. The venom extracts help the patient's immune system develop a resistance to future insect stings.

**Efficacy** VIT has been found to reduce the risk of systemic reaction in stinging insect allergic patients with an efficacy of 95 to 97%.<sup>1,2</sup>

**Safety** The most common side effects are redness and warmth at the shot site. Occasionally, allergic reactions occur that require immediate medical treatment, which is why immunotherapy is provided at a medical facility with a physician present. Since most reactions occur within thirty minutes, patients must stay in the medical facility for this length of time.

**Timeline** Generally, dosage strength is gradually built-up for two to three-and-a-half months, at which time the patient has reached the maintenance dose level. The allergist will determine the necessary duration and frequency of injections for each patient.

<sup>1</sup> Valentine MD, Schuberth KC, Kagey-Sobotka A, Graft DF, Kwiterovich KA, Szkló M, et al. The value of immunotherapy with venom in children with allergy to insect stings. *N Engl J Med.* 1990; 323:1601-3.

<sup>2</sup> Valentine MD. Anaphylaxis and stinging insect hypersensitivity. *JAMA* 1992; 268:2830-2833.



.5-5%  
of Americans  
at risk

Approx.  
9.5 million  
allergic  
Americans

40-100  
fatalities/yr.!

[www.BeeAwareAllergy.org](http://www.BeeAwareAllergy.org)

For further information on Venom Immunotherapy and the Bee Aware program, and for allergist referral information, please visit [www.BeeAwareAllergy.org](http://www.BeeAwareAllergy.org)

Bee  Aware™

Bee  Aware™

Clinician Information

“She came in with  
an extreme reaction  
to bee stings.

I sent her home  
with a solution.”



# You can help

Approximately 9.5 million Americans are at risk for a potentially life threatening systemic reaction to an insect sting.<sup>1,2,3</sup> Thankfully, many of these individuals will never experience the sting which would produce this reaction. However, for those who do go through such a traumatic incident, it is important for Emergency Department personnel to Bee Aware.

Patients with insect sting sensitivity need to know their options. They shouldn't have to live in fear of going outdoors, and you can help. Instruct these patients in how to best avoid insect stings, educate them on Venom Immunotherapy and inform them of how to get in touch with an allergist. Be sure to prescribe epinephrine and teach them how to use it.

Every time a patient who experienced a severe allergic reaction to an insect sting leaves the emergency department without the proper information, there is a chance that they will suffer a more severe allergic reaction, or even death, the next time they are stung. By providing these patients with adequate information you can potentially help to save a life.



1 Golden BK, Marsh DG, Kagey-Sobotka A, et al. Epidemiology of insect venom hypersensitivity. JAMA. 1989;262:240-244.

2 Valentine MD. Anaphylaxis and stinging insect hypersensitivity. JAMA. 1992;268:2830-2833.

3 U.S. Census Bureau, Population Division, Interim State Population Projections, 2005.

## How to talk to your patients about VIT

Experiencing a severe allergic reaction to an insect sting can be very traumatic, and may include swelling of the throat or tongue, hives, difficulty breathing, dizziness, unconsciousness and cardiac arrest.

After having a systemic reaction to an insect sting, a patient will likely be frightened and feel helpless or worried about the possibility of another sting, leading to a similar or more serious reaction. It is important to acknowledge the emotional impact that the patient is experiencing, but even more crucial is educating the patient on how they can take control of this situation.

### 3 Step Process

**Avoidance** Provide patients with information on how to avoid being stung. While it is impossible, not to mention undesirable, to avoid going outdoors, there are certain precautions that can be taken to allow individuals to enjoy the outdoors while minimizing their chances of being stung.

**Epinephrine** Prescribe the patient epinephrine, and provide detailed instructions on when and how to properly administer it. It is important that the patient is instructed to carry the epinephrine with them at all times. Epinephrine counteracts the symptoms of anaphylaxis by constricting the blood vessels and opening the airways, but oftentimes a patient will need another dose of epinephrine within 10-15 minutes, so it's important that they seek medical treatment immediately.

**Evaluate VIT** Discuss Venom Immunotherapy with the patient, informing them of the proactive approach that they may want to look into. Provide them with information on the efficacy, safety and protocol of VIT, along with information on how to get in touch with a local allergist.

## Facts & Figures

In the United States, an estimated .5–5% of people have potentially life threatening allergies to insect stings.<sup>1,2</sup> This is approximately 9.5 million people!<sup>3</sup>

**30 – 65% of patients** who experienced a systemic reaction from a previous insect sting will have an anaphylactic reaction if stung again.<sup>4</sup>

**Severe anaphylactic reactions** account for at least 40 – 100 deaths a year.<sup>2,4</sup>

It is estimated that **500,000 to 1 million patients** visit an emergency department for insect stings each year. One multi-center ED study showed that 30% of patients visiting an ED for treatment of an insect sting had an anaphylactic reaction, but only 20% were referred to an allergist.<sup>5</sup>

**Venom Immunotherapy (VIT)** has been found to reduce the risk of systemic reaction in stinging insect allergic patients with an efficacy of 95 – 97%.<sup>6,7</sup>

**Less than 30%** of patients with a known severe allergy to insect stings carry their epinephrine autoinjector device at all times.<sup>8</sup>

**Less than 45%** of patients carrying an epinephrine autoinjector for a stinging insect allergy demonstrated proper administration of the device.<sup>8</sup>

1 Golden BK, Marsh DG, Kagey-Sobotka A, et al. Epidemiology of insect venom hypersensitivity. JAMA. 1989;262:240-244.

2 Valentine MD. Anaphylaxis and stinging insect hypersensitivity. JAMA. 1992;268:2830-2833.

3 U.S. Census Bureau, Population Division, Interim State Population Projections, 2005.

4 O'Brian, J., et al (2000) Allergic emergencies and anaphylaxis: how to avoid getting stung. Emergency Medicine Practice 2 1-19

5 Clark, S.C., et al (2005) Multicenter study of emergency department visits for insect sting allergies JACI 116 643 – 649

6 Valentine MD, Schuberth KC, Kagey-Sobotka A, Graft DF, Kwitrovich KA, Szkló M, et al. The value of immunotherapy with venom in children with allergy to insect stings. N Engl J Med. 1990; 323:1601-3.

7 Valentine MD. Anaphylaxis and stinging insect hypersensitivity. JAMA 1992; 268:2830-2833.

8 Goldberg, A., Confino-Cohen, R. Insect sting-inflicted systemic reactions: attitudes of patients with insect venom allergy regarding after-sting behavior and proper administration of epinephrine. J Allergy Clin Immunol. 106 (6): 1184-1189, 2000.