Insect Stinging Allergy

Studies estimate that 2 million Americans are allergic to insect stings and many of these individuals are at risk of suffering life-threatening reactions to insect venom.

Insect stings send more than 500,000 Americans to hospital emergency departments every year, and cause at least 50 known deaths each year.

An allergic reaction occurs when the immune system overreacts to the insect venom. When this happens, an allergic person’s body produces Immunoglobulin E (IgE) antibody to insect venom. Subsequent exposure by sting can trigger the release of histamine and other mediators that are responsible for the allergic reaction.

The allergic individual likely will not experience a serious allergic reaction the first time they are stung. If he/she is stung again by the same type of insect, the insect venom interacts with the IgE antibody produced from the previous sting.

Other than a previous insect sting, there is no way to identify people at risk for anaphylaxis from insect stings. The most common symptoms are:
- Itching and hives over large areas of the body
- Swelling of the throat or tongue
- Difficulty breathing
- Coughing/wheezing/shortness of breath
- Dizziness
- Light-headedness
- Stomach cramps
- Nausea or diarrhea

The symptoms usually start within minutes after a sting.

In the most severe cases, there can be a rapid fall in blood pressure which can result in the loss of consciousness, which can lead to death. Allergic reactions to insect stings should be taken very seriously and evaluated by an Allergy Specialist.

Large local reactions from insect stings can occur and do put one at slightly greater risk for developing a more severe reaction. Studies indicate that less than 5% of subsequent insect stings cause more serious reactions.

It can be very helpful to your allergy specialist if you can describe the insect, and where the insect lives. Most stings reactions are caused by five types of insects:

Yellow Jackets: The most common cause of insect stings in mid-Atlantic states. These are black with yellow markings, found in various climates. Their nests are usually located underground, but sometimes found in the walls of buildings, cracks in masonry or woodpiles. They can be disturbed by lawn mowing, gardening, or other outdoor activities.
Honeybees: They have a round, fuzzy body with dark brown and yellow markings. This insect will often leave its stinger in its victim and the insect dies as a result. These are usually non-aggressive, stinging when provoked, except for their more aggressive cousin in the southwest. They are usually found in honeycombs in trees, old tires, or other partially protected sites.

Paper Wasps: These are slender with black, brown, red and yellow markings. They live in circular combs under eaves, behind shutters or in shrubs and woodpiles. Wasps are more prevalent early in summer season.

Hornets: These are black or brown with white, orange or yellow markings. Their nests are gray or brown and usually found in trees and shrubs and are disturbed by activities such as trimming hedges.

Fire Ants: These are reddish brown ants living in large mounds, mostly in warmer climates. They can attack with little warning, insert highly concentrated toxins, causing burning pain. They attach to a person by biting with its jaws. The stinger is located on the abdomen. Within 24 hours a sterile pustule develops, which is diagnostic of the fire ant’s sting. They are found only in the Southern (warm) Climates.
Insect Stinging Allergy (Cont’d)

Unlike insect stings, insect bites rarely cause anaphylaxis. Biting insects such as mosquitoes deposit salivary gland secretions that have no relation to venom allergens. Large local reactions, are more common.

AVOIDANCE

Prevention is good treatment for protecting yourself from being stung. Follow these measures to avoid future stings:

Do not walk barefoot in the yard.
When gardening, wear slacks, long sleeve shirts, and shoes.
Avoid wearing cosmetics, perfumes, and hair sprays, which attract insects.
Light-colored clothing is less likely to attract insects.
Be very careful around food and garbage, which especially attracts yellow jackets.
Keep food covered until eaten.
If you encounter flying insects, remain calm and quiet, and move slowly. Do not swat them. Flick the stinger. Do not remove with fingers or tweezer.

TREATMENT

For treatment of anaphylaxis, an emergency medication, called epinephrine, Epi-pen/Epi-pen Jr., should be available at all times. Venom Immunotherapy, or allergy shots are proven to be approximately 98% protective. This is a treatment that will help prevent serious consequences if you or your child are stung. Allergists can determine if this is the appropriate treatment for you.