

Insect Allergy

The stinging insects of Western Pennsylvania include yellow jackets, hornets, honeybees and wasps. When stung by one of these insects, most people have a "normal" reaction consisting of pain, redness and swelling at the site of the sting. A small number of people (less than 5% of the population) have "allergic" reactions to stings. The severity of an insect sting reaction varies from person to person. Treatment for a normal reaction is simply to clean the area well and apply ice to reduce the swelling. A large local reaction will result in swelling that extends beyond the sting site. For example, a person stung on the forearm may have his/her entire arm swell to twice its normal size. Although alarming in appearance, this condition is often treated the same as a normal reaction. However, because this condition may persist for 2-3 days, antihistamines and steroids are sometimes prescribed to lessen the discomfort. The most serious reaction to an insect sting is an allergic one. This condition requires immediate medical attention. Symptoms of an allergic reaction of "anaphylaxis" may include one or more of the following:

- Hives, itching, or swelling in areas other than the sting site
- Tightness in the chest and difficulty breathing.
- Hoarse voice or swelling of the tongue.
- Dizziness or a sharp drop in blood pressure.
- Unconsciousness or cardiac arrest.

This type of reaction can occur within minutes after the sting and may be life threatening or even fatal. People who have experienced an allergic reaction to an insect sting have a 60% chance of a similar or worse reaction if stung again. All allergic reaction is treated with Epinephrine, either self-injected or administered by a doctor. In some cases, intravenous fluids, oxygen and other treatments are necessary as well. Once stabilized, these patients are sometimes required to stay overnight at the hospital under close supervision. People who have had previous reactions and rely on the protection of Epinephrine must remember to carry it with them wherever they go. Also, because one dose may be insufficient in reversing a reaction, immediate medical attention following an insect sting is recommended.

Allergic reactions to insect stings can be prevented with venom immunotherapy, a treatment which is 97% effective in preventing further recurrence. This specific therapy has only been available since 1979. In that short period of time, it has proved to be very effective. Using skin tests with insect venom protein from the common stinging insects, it is possible to identify most individuals who are allergic to insects and to determine which types of insects could cause future allergic reactions if these persons were stung again. Once an "allergic" individual (one with positive skin tests) is identified, it is possible to offer specific treatment with a program of "allergy shots" or injections of progressively larger amounts of insect venom. The usual treatment regimen consists of 15 consecutive weeks of weekly venom injections followed by one bi-weekly injection and then one injection in three weeks; then monthly maintenance injections of an amount of venom equal to two insect stings. The monthly injections continue for the remainder of the first year; at that time, the injections are given every six weeks for a total of five years. At the end of this period, the patient may be retested.