

UniversityHealthServices

We heal. We educate. We care.

Allergic Reactions to Stings

Reactions to Stings from Hornets, Yellow Jackets, Wasps and Bees

Were you one of the millions of Americans who are stung by insects every year? Everyone will react in some way to the venom of stinging insects, but less than 5 percent of the population is truly “allergic.”

Types of Insect Sting Reactions

The severity of an insect sting reaction varies from person to person. A normal reaction will result in pain, swelling, and redness confined to the sting site. Simply clean the area 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 such as Diphenhydramine (Benadryl) may be used to reduce the swelling and control the itch.

The most serious reaction to an insect sting is an allergic reaction. This condition requires immediate medical attention. Symptoms of an allergic reaction or “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 percent chance of a similar or worse reaction if stung again.

Treating Allergic Reactions

An allergic reaction is treated with epinephrine, either self-injected with a Epi-Pen or administered by a health care provider. 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.

Avoidance

You can lessen your chances of an insect sting by taking certain precautionary measures. Yellow jackets will nest in the ground and in walls. Hornets will nest in bushes and in trees. Use extreme caution when working or playing in these areas and never walk barefoot in the lawn. Avoid insect attractants such as fragrances (perfumes, hairsprays, lotions, etc.) open garbage cans, exposed food at picnics. Also, try to reduce the amount of exposed skin when outdoors.

Preventing Allergic Reactions

Allergic reactions to insect stings can be prevented with venom immunotherapy, a treatment which is 97 percent effective in preventing future occurrences. It involves administering gradually increasing doses of venom which stimulates that patient’s own immune system to become resistant to future allergic reaction. In a matter of weeks, people who previously lived under the constant threat of severe reactions to insect stings can go about leading normal lives.

More About Venom Immunotherapy

Consult an allergist. If you’ve had an allergic reaction, it’s important to talk to an allergist, a doctor who is a specialist in the diagnosis and treatment of allergic disease.

Based on your past history and certain testing, the allergist will be able to determine if you are a candidate for the immunotherapy treatment.

Conclusion

Most people are not allergic to insect stings and should recognize the difference between an allergic reaction and a normal or large local reaction. This will prevent unnecessary worry and medical expense. People who are allergic to insect stings should be evaluated by an allergist for correct diagnosis and treatment of their allergic condition. Although stinging insect allergy is a serious problem, much of the risk and fear of reoccurrence can be eliminated with immunotherapy.

Advice Nurse and Test Results

Please call the nurse for advice and test results: 863-4463

Appointments

Appointments can be made in person or by phone. If you are unable to keep your appointment, please call and cancel. Otherwise you will be charged for the visit. To schedule or cancel appointments, call 863-0774

For more information about health care issues, visit the UHS Web site at www.sa.psu.edu/uhs

This publication is available in alternative media on request.

Derm_AllergicStings_102605 Approved by Patient Education Committee: 10/26/05

This content is reviewed periodically and is subject to change as new health information becomes available. This information is intended to inform and educate and is not a replacement for medical evaluation, advice, diagnosis or treatment by a healthcare professional.