

Take the sting out of insect allergies

For most people, a bee, wasp, or hornet sting is a painful, unpleasant experience that encourages a new level of respect for these defensive insects. But for a small minority of the population—an estimated two to three million people in the U.S.—a “simple” sting can quickly escalate into a full-blown, life-threatening allergic reaction. In fact, approximately 150 deaths occur per year in the U.S. as a result of insect stings.

While this may not seem like a large number compared to other, more common causes of mortality, it is very significant when you consider that most people who die from insect stings are relatively young and active and have no underlying health problems.

In our area, stinging insects of particular concern include honey bees, wasps, yellow jackets, yellow hornets, and white hornets. Fire ants are also known to cause severe reactions in allergic individuals. While their range does not extend to our area, they are an issue in the Southern states where many northerners like to travel.

According to allergist Dr. Syed Maseehur Rehman of Asthma and Allergy Center, there are two types of reaction to insect stings: local and systemic. “A local response typically involves pain and a small amount of redness and swelling at the site of the sting, which usually goes away spontaneously within about 24 hours with no medical intervention,” he explains. “In some instances, the local response may involve more pronounced swelling—say, four inches or more—and a longer-than-usual duration of symptoms. In these cases, the doctor may prescribe an antihistamine and anti-inflammatory medications. If the local reaction is very significant, a steroid such as prednisone may also be utilized.”

A systemic response to insect venom, which occurs in only about three percent of stings, is life-threatening and, as Dr. Rehman notes, typically affects the skin, respiratory system, gastrointestinal system, and cardiovascular system. Symptoms of a systemic response might include hives; swelling of the face, lips, and tongue; wheezing; tightness or heaviness of the chest; difficulty breathing; stomach cramps; nausea; vomiting; drop in blood pressure; and loss of consciousness. The onset of symptoms is usually immediate, occurring within about 15 minutes of the sting, but can be delayed in rare cases. Because severe allergic reactions to insect venom are so uncommon, most people who are allergic are unaware of the fact until they are stung and experience a reaction.

Treatment following a systemic, or anaphylactic, response to an insect sting progresses in two phases. The first is emergency care to treat acute symptoms, which commonly includes administering epinephrine (a hormone that constricts the blood vessels, thereby preventing loss of blood pressure, and relaxes the airways so the victim can breathe easier) along with steroids and, possibly, an antihistamine and breathing treatment. Emergency care must be followed by chronic preventive treatment, which often includes immunotherapy (allergy shots), with the goal of preventing another episode of anaphylaxis. “When a patient comes to us following a systemic reaction and emergency care, we evaluate the type of reaction. If it’s severe enough, we’ll perform a skin or blood test to confirm the specific type of insect venom that caused the reaction and to determine whether the patient is also allergic to other types of insect venom. We can then start the patient on immunotherapy using the same venom or venoms. Giving injections of the venom in gradually increasing doses helps desensitize the patient’s immune system to the venom and reduces the severity of the allergic response in the event of another sting,” Dr. Rehman comments.

Anyone with a known allergy to insect stings must also carry an epinephrine self-injector, or epi-pen, at all times and undergo training in its proper use. “Furthermore, it’s important to be aware that epinephrine has a shelf life,” says Dr. Rehman. “Make sure it

is current. Mark it with the expiration date, and be sure to get it refilled before it expires.” Dr. Rehman also emphasizes that epinephrine should appear clear, not cloudy or turbid (which can be monitored through a small window on the epi-pen), and that it should be maintained at approximately room temperature. If it gets too hot or cold, it can lose its potency. Insulated carrying cases are available to help maintain epinephrine at the proper temperature.

In addition, he urges anyone who is allergic to insect stings to wear a medical-alert tag (available through any pharmacy) with this information imprinted upon it. “That way, if you’re having a reaction where no one knows your history and you’re unable to communicate, they can read the tag and give you the epi-pen injection,” advises Dr. Rehman.

For people who are allergic to insect stings, the importance of chronic preventive treatment, proper training in the use of an epi-pen, and the use of a medical-alert tag cannot be overstated. Not only will taking these steps help minimize the severity of a reaction in the event of a future sting, but they’ll also give allergic individuals a greater sense of control and peace of mind. This is significant because, for many, the fear of recurrence is so intense that they may be overwhelmed with terror and unable to control their behavior in the presence of a stinging insect. Dr. Rehman has even seen cases where people have died in motor-vehicle accidents as a result of panicky behavior induced by a bee or wasp in the vehicle.

As we enter late summer and early autumn, many stinging insects are at their most active, significantly increasing the risk of getting stung. Unfortunately, the repellents we rely on to keep mosquitoes at bay aren’t effective against bees, wasps, and hornets, so it’s important for allergic individuals (or anyone wishing to avoid a painful sting) to take certain precautions outdoors.

Many stings occur on the feet as a result of people disturbing ground-nesting bees, wasps, or hornets, so shoes are a must any time you are walking outdoors. Also, avoid loose-fitting clothes (they can trap stinging insects against your body), bright colors or any floral pattern (the colors white, green, tan, and khaki seem to be least attractive to stinging insects), perfumes and colognes, scented deodorants, scented soaps, and scented lotions. If a stinging insect hovers around you or lands on you, try to remain calm and remain as still as possible. “As I like to tell my patients, ‘You should not look like a flower, smell like a flower, or act like a flower moving in the wind,’” Dr. Rehman says.

What’s more, yellow jackets are particularly drawn to meats and sweets, so it’s a good idea, especially at this time of year, to avoid keeping food uncovered and drinking from open beverage containers outdoors.

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