To "BEE or not to BEE" - Bee-sting Allergies

Having your pleasant spring or summer day interrupted by a bee-sting can be more than just an inconvenience. Beestings can cause significant allergic and, in some cases, life threatening reactions and can be frightening. Indeed, five species of bees cause most stings (see below) with approximately 0.5% of the population being at risk for a significant allergic reaction and up to 50 fatalities being reported each year.

Allergic reactions to beestings are generally classified according to the time interval between the sting and reaction, and the extent of the reaction. Immediate reactions occur up to four hours after the sting; delayed reactions occur later. Of the immediate reactions, most are localized at the sting site, very itchy with swelling, pain and redness. Reactions cad be quite large, but other than discomfort, the reaction poses no health risk. Immediate reactions can also be systemic, involving signs and symptoms remote from the sting site. Systemic reactions usually involve generalized itching, redness, swelling and hives. Studies have shown that under the age of 16, an individual who develops either localized or mild, systemic reactions from beestings has no increased risk for worse reactions with subsequent stings. In contrast, adults who have experienced systemic reactions and who have positive venom skin tests are at 40-60% risk for another significant or worse systemic reaction.

A small percent of children and adults may develop serious, life threatening reactions called anaphylaxis, consisting of hives, swelling, shortness of breath, wheezing, low blood pressure (hypotension), abdominal cramping and altered consciousness. Toxic reactions resemble systemic reactions, but occur when multiple (50-100) stings are received in a short period.

Localized and mild systemic reactions can be treated at home with antihistamines. Significant systemic reactions often require emergency room treatment with adrenaline (epinephrine), intravenous fluids and steroids. Patients at any age who have experienced life threatening systemic reactions and individuals age 16 and older who have experienced systemic reactions should have intradermal skin testing to diagnose bee-sting allergy. If tests are positive, bee venom allergy shots (immunotherapy) is recommended, and individuals should carry Benadryl and epinephrine. Epinephrine is available in a preloaded spring-loaded syringe called an auto-injector. The Epi-Pen and Twin-Ject are 2 products available by prescription. Either device should be kept on hand at all times. The latest study out of Johns Hopkins University claims that 5 years of venom immunotherapy may be adequate for most patients.

For bee-sting allergic individuals, general rules for avoidance of bees outdoors include: Stay still when a bee approaches, avoid areas where flowers are blooming, avoid yellow and blue clothing, perfumes or hair sprays, wear long sleeves or pants and keep drinks covered in picnic areas. Nests around the home should be identified and eliminated.

Types of Bees and Habitats

Species	Description	Season	Nest	Attractants
Yellow Jacket	Aggressive, yellow and black markings, smaller, squat body	April through October	Ground, walls, or rocks	Food, drinks, perfumes, suntan lotion, yellow and blue colors
White-Faced Hornet	Black and creamy, white coloring, narrow waist	April through August	Trees, shrubs, and eves of houses	Drinks, perfumes, suntan lotion, yellow and blue colors
Yellow Hornet	Yellow coloring, narrow waist	April through August	Trees, shrubs, and eves of houses	Drinks, perfumes, suntan lotion, yellow and blue colors
Paper Wasp	Aggressive when discovered, brown yellow coloring, narrow waist	March through August	Eves, poles, bushes, attics	perfumes, suntan lotion, yellow and blue colors
Honey Bee	Hairy, tan and black, squat body, domesticated or wild, can be easily provoked, only female stings	March through September	Hives, rocks, crevices, outbuildings, houses	Drinks, perfumes, suntan lotion, paints containing isoamyl-acetate