BEE AND WASP ALLERGY

- An allergic reaction is a reaction to things in the environment that are harmless for most other people and that involves the immune system (see what is an allergy).
- Allergens are substances to which you are allergic. Why some people become allergic to allergens such as foods, venoms or medicines is not well understood.
- When an allergen enters the person's body it causes cells in the blood to make allergy type antibodies, called IgE. The IgE then goes around the blood and attaches to the allergy cells called mast cells.
- When the pollen enters the person's body for a second time it comes into contact with those IgE antibodies stuck onto the side of the allergy cells. This makes the allergy cell burst and release chemicals like histamine into the blood and a longer-lasting build-up of allergy cells called “inflammation.”

WHAT INSECTS CAUSE STING ALLERGY?

- Insects that cause sting allergy include the Honey Bee (Apis mellifera), the Yellow Jacket Wasp (Vespula germanica) and the Paper Wasp (Polistes emarginata).
- Bees and Wasps are usually peaceful insects and only sting in self-defense when disturbed. The African Honey Bee is known to be more aggressive than bees elsewhere.
- They are usually more active in spring and summer than in the colder months.
- The Honeybee is the only insect that leaves a stinger behind in the skin. The stinger on honeybees is barbed so bees die soon after stinging.
- Honeybee venom allergy is more common in South Africa, whereas in Europe wasp sting allergy is more common.

SYMPTOMS OF STING ALLERGY

- It is normal for some redness, pain and swelling to occur at the place where someone is stung. This will go away within a few hours.
- In allergic people the reaction can be worse and last longer.
- A mild allergic reaction causes redness, swelling, itching and pain within minutes of being stung.
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- More severe reactions include body swelling and itching, faintness, sweating, a headache, stomach cramps or vomiting, a feeling of impending doom, a tight chest or choking sensation with swelling of the throat and in extreme cases a severe reaction called anaphylaxis (see what is anaphylaxis).
- Life threatening reactions are more likely to occur in people who are already known to be very allergic to bee venom, older people with heart and chest complaints, or those who have multiple stings.

AVOIDANCE MEASURES

- People allergic to bee and wasp stings should try to avoid being stung. They should stay away from areas that bees and wasps are found e.g. open dustbins, uncovered cold drink cans etc.
- If a swarm of bees approaches, run for shelter as bees are slow fliers and can normally be outrun.
- Keep an insecticide spray in the kitchen and car and have a “bee cloth” handy to trap insects.
- Wasps and bees are attracted to flower fragrances and clothing with bright colours on dark backgrounds.
- Avoid perfumes, fruit juices and eating fruit out-doors.
- Warn young children not to stick their fingers into flowers, as bees may be collecting pollen.
- Wear covered shoes and avoid walking barefoot on flowering fields or clover-covered lawns. Carefully shake out any clothing left on the ground.
- If you are allergic to bees, do not mow lawns, trim hedges or prune trees in mid summer. If one comes across a beehive, don't disturb it - beekeepers will be glad to come and remove it.
- Wasp nests should have petrol applied to them and destroyed.

MANAGEMENT

- When stung, look immediately for the barbed stinger in the case of a bee sting, and carefully remove it by flicking it or scratching it out of the skin with the fingernail or a pointed object.
- Don't squeeze it, as more venom will enter the skin from the stinger sack.
- Stings to the head and neck are more dangerous as swellings in these areas may block breathing. Immediately apply ice or cold compresses to the sting site.
- For mild reactions, an antihistamines should be given. A quick acting, non-sedating antihistamine is best. Proper medical treatment should be sought immediately.
Patients who are allergic to bee stings should be taught to immediately recognise the early signs of anaphylaxis. They must be provided with an emergency action plan that describes the signs of a mild-moderate attack versus a severe anaphylactic attack, and taught the correct response for either possibility.

- Patients must carry emergency treatment with them at all times and know how to inject themselves with adrenaline for a severe attack.
- Remember to check expiry dates on adrenaline and replace immediately if expired, or used for a sting.
- All bee-allergic patients should wear a Medic Alert bracelet.

LONG TERM MANAGEMENT

- A reliable diagnosis of the allergy is essential (see allergy tests). The ImmunoCAP blood test is very useful to prove allergy and to make sure that the exact species causing the allergy is identified. Skin prick tests for bee and wasp allergy are not done in South Africa.
- Allergy shots or immunotherapy treat the actual cause of the allergy (see what is immunotherapy). This series of injections must be given by a doctor with experience in immunotherapy. This treatment needs a lot of dedication because it must be taken regularly for at least 3 years!
- A course of immunotherapy against bee venom allergy gives 96% protection against severe reactions from future bee stings!

A medical specialist with a special interest and skill in allergy might be able to help. See the list of health professionals with skills in allergy on the AFSA website.