Bee and Wasp Stings

The stinger from the honeybee is barbed resulting in the stinger and the venom sack being torn from the bee's body after a single sting. Stingers of wasps are unbarbed so they are capable of inflicting multiple stings. The Africanized honeybee requires a warm climate to survive (16 C/60 F) and has not migrated into Canada.

The effects of stings from these insects can be divided into the following categories:

Localized reaction:
A localized reaction involves redness, swelling and pain at the site of the sting and usually subsides in a couple of hours. Severe localized reactions involve progression of symptoms beyond the sting site over 2-3 days; may take up to a week to resolve. An infection may develop with any sting but is more common with wasp stings. Symptoms may be difficult to distinguish from localized reactions and can include persistent redness, warmth and swelling, pus draining from site, swollen lymph nodes and fever. The swelling from a sting inside the mouth or throat may obstruct the airway or breathing passage. A sting to the eye may result in injury to the cornea.

**Allergic reaction:**
An allergic reaction occurs when your immune system reacts to the allergens in the insect venom. Allergic reactions can get worse with subsequent stings. Symptoms usually occur within 30 minutes and can include nausea, vomiting, hives and generalized itching. Symptoms of a severe reaction or anaphylaxis can include swelling of the face, tongue and mouth, wheezing and shortness of breath, low blood pressure and loss of consciousness.

**Toxic reactions from multiple stings:**
Toxic reactions occur from the direct effect of the venom from multiple stings. It usually takes more than 50 stings in an adult or more than 10 stings in a child for this type of reaction to occur. Symptoms usually develop over several hours but may be delayed for 24 hours. Mild reactions can include nausea, vomiting, diarrhea, headache, dizziness and sweating. Symptoms of a severe reaction can include a rapid pulse, low blood pressure, loss of consciousness, kidney and liver injury.

**What to do:**
**Call an ambulance immediately** if you have severe allergic symptoms (difficulty breathing, wheezing, dizziness, drowsiness or loss of consciousness) or a sting in the mouth or throat or multiple stings.

**Ocular:** If you have a sting directly to the eye, go to an Emergency Department for an eye examination and assessment.

**Dermal:** Immediately remove stinger by flicking with fingertip, scraping with a dull knife blade or credit card (only bees leave stingers). Prompt removal of stinger by any method is important as 90% of the venom is injected within 30 seconds.

- Wash area with soap and water. Apply a cool cloth or ice pack to area. Do not apply ice for longer than 20 minutes at a time, and keep a cloth between the ice pack and your skin.
- Recommendations to relieve the discomfort from a sting have varying degrees of success. These include applying an aluminum based antiperspirant, calamine lotion, baking soda and water paste, or soaking in epsom salts. Avoid using meat tenderizer as it can cause an allergic reaction.
- If swelling develops beyond the sting site, take an antihistamine. Consult with your pharmacist regarding the dosage.
- If the area looks infected, see your family doctor.

If symptoms persist after the above first aid measures or if you have any questions or concerns, contact the Poison Control Centre.

**How can I prevent exposure?** Avoid wearing perfume or scented lotions while outdoors. Take food indoors if there are many bees or wasps in the area. If you have an allergy to bees, avoid flowering gardens and fruit trees. If you encounter a bee or wasp, move out of the way.
with calm movements. Swinging your arms or reacting aggressively may excite the bee or wasp and cause it to sting.

Need more information: Call the Poison Control Centre.

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