



CENTRAL TEXAS ALLERGY & ASTHMA

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STINGING INSECTS

A "bee sting" is commonly referred to a sting from a bee, wasp, or yellow jacket. A bee sting strictly means the sting from a bee (honey bee, bumblebee, sweat bee, etc). The stings from any of these insects can be quite painful, and are therefore an object of dread for many people.

Stings vs bites

Insect bites and stings occur when an insect is agitated and seeks to defend itself through its natural defense mechanisms. Insects inject formic acid, which can cause an immediate skin reaction. Redness and swelling in the injured area are common. The sting from bees, wasps, and hornets are usually painful, while bites from mosquitoes, fleas, and mites are more likely to cause itching than pain.



It is important to differentiate a bee sting from an insect bite. The venom of stinging insects vary among the species and therefore, the body's reaction may differ significantly depending upon what you are actually stung by.

The most aggressive stinging insects are vespid wasps (yellow jackets and bald faced hornets). All of these will fiercely defend their nests and sometimes even attack without provocation.

For those individuals that are highly allergic to bee stings, the honeybee is usually the most serious threat of all the stinging insects. Honeybee stings release pheromones that prompt other nearby bees to attack. This can lead to being stung multiple times and increasing the amount of venom injected into that person.

TYPES OF REACTIONS

A) **Normal reaction:** Skin involving the sting sight will have redness, itching, and pain.

B) **Local reaction:** The swelling around the sting sight is greater than 5 cm.

The skin reaction to insect stings and bites usually lasts for up to a few days.

However, in some cases the local reaction can last up to two years.

C) **Systemic reaction:** Symptoms occur in areas outside of the sting sight (SOB, wheezing, hives ect..). For those individuals that are highly allergic to the venom, this can lead to anaphylaxis, shock, and even death.

TREATMENT

- **Remove the stinger.**

It should be removed as fast as possible without regard to the method. Studies have shown the amount of venom delivered does not differ if the stinger is scraped or pinched off. The delay of a few seconds leads to more venom being injected.

- **Apply ice to the area.**

Once the stinger has been removed, pain and swelling should be reduced with a cold compress. Many traditional remedies have been suggested for bee stings including damp pastes of tobacco, salt, baking soda, meat tenderizer, tooth paste, clay, urine, onion, aspirin, or even application of copper coins. Many people claim benefit from these home remedies, but none of these interventions have been shown to be effective in scientific studies. They concluded that ice alone is the best treatment for insect stings.

- **Raise the affected limb to reduce swelling and pain.**

- **Gently clean the area with soap and water to prevent secondary infection.**

- **Use topical steroid creams (hydrocortisone) or antihistamines (Benadryl, Zyrtec...) to relieve itching.**

- **Receive a tetanus immunization if not vaccinated within the past 10 years.**

- **Carry epinephrine if you are highly allergic to insect stings.**

Self-injecting forms of epinephrine (EpiPen, etc) should be on hand and current to prevent an anaphylactic reaction. Symptoms of anaphylaxis may include two or more of the following: itching and hives, swelling in the throat or the tongue, difficulty breathing, dizziness, stomach cramps, nausea or diarrhea. A rapid drop in blood pressure may result in shock and loss of consciousness-this is a medical emergency and may be fatal.



Remember that epinephrine is a rescue medication only, and you must still have someone take you to an E. R. Immediately if you are stung and need to use an EpiPen.

PREVENTING STINGS



- Stay away. These insects are most likely to sting if their homes are disturbed.
- Have nests around your home destroyed.
- Remain calm and slowly move away when stinging insects are close by.
- Avoid brightly colored clothing and perfume when outdoors.
- Be careful when cooking, eating, or drinking sweet drinks outside because the smell of food attracts insects.
- Keep food covered until eaten.
- Check inside canned drinks or straws prior to drinking.
- Wear closed-toed shoes outdoors and avoid going barefoot.
- Avoid loose fitting garments that can trap insects between material and skin.