

FS-B01



Anaphylaxis is a severe life-threatening allergic reaction to food, insect stings, medication or latex. It may also be induced by exercise.

SYMPTOMS

Symptoms may include:

Face

- Itchy eyes or nose
- Flushed face
- Swelling of tongue and lips
- Metallic taste

Skin

- Itchiness
- Redness
- Hives
- Swelling of skin anywhere on the body

Throat

- Itchiness
- Tightness
- Hoarseness, change of voice
- Hacking cough
- Difficulty swallowing, choking sensation

Lungs

- Difficulty breathing
- Shortness of breath
- Repetitive cough
- Wheezing

Stomach

- Vomiting
- Nausea
- Stomach pain
- Diarrhea

General

- Dizziness
- Unsteadiness
- Drowsiness
- Sense of impending doom
- Loss of consciousness

TREATMENT

- Administer epinephrine (adrenaline) injection immediately. Give a second dose 10–15 min later, if reaction continues or worsens.
- Call 911 and tell them someone is having a life-threatening allergic reaction.
- Go to the nearest hospital immediately even if symptoms subside.
- Remain for observation for 4–6 hours.

If you are at risk for anaphylaxis, see a qualified allergist. An injection of epinephrine could save your life, **but only if have it with you**. Carry the auto-injector(s) with you at all times. There are many versatile carrying cases to make it easier to keep it with you. These carrying cases will also protect the auto-injector(s) from damage. Wear a medical alert bracelet or necklace at all times.

FS-B02



Bees, wasps, yellow jackets, yellow hornets, and white-faced hornets all belong to the family of insects called Hymenoptera. These insects inject venom into the skin when they sting. You can develop allergies to stinging insects over time as a result of repeated exposure to venom.

THE STING

If you are stung, first, try to remain calm and brush the insect from the skin. Then immediately leave the area to avoid another sting. Next, check to see if the stinger is present. A venom sac is attached to the stinger that continues to release venom for several minutes and this must be removed. Remove it by scraping it off with your fingernail. **DO NOT** squeeze the stinger; this will expel the venom in the venom sac.

LOCAL REACTION

Immediate local reactions occur within minutes to hours of a sting and are often considered the “normal reaction”. These localized reactions are limited to the area of the sting site and can occur in individuals who are not insect allergic.

Symptoms:

- Pain
- Redness
- Swelling
- Mild itching

Typically these symptoms will only last for 24 hours.

Treatment:

- A cold compress to reduce pain and swelling.
- Oral antihistamines or topical ointment/cream to relieve itching.

LARGE LOCAL REACTION

Large local reactions are characterized by redness and swelling that extends from the sting site over a large surrounding area. These reactions often peak within 48 to 72 hours and last up to 10 days. They may be accompanied by fatigue, low-grade fever, mild nausea, and discomfort and are often misdiagnosed as cellulitis.

ANAPHYLAXIS

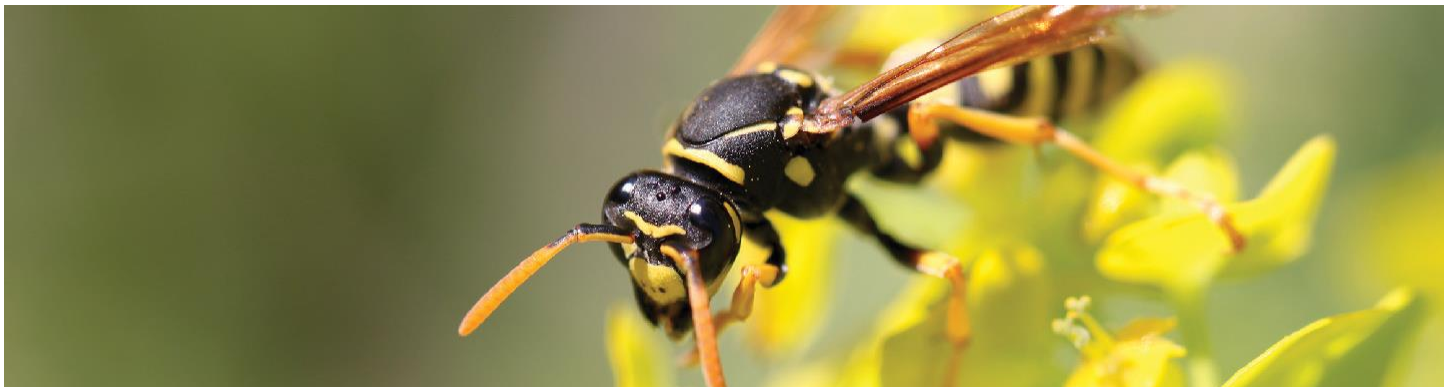
Anaphylaxis is the most severe insect sting reaction. This reaction most often begins within minutes of the sting although it can occasionally begin an hour or so later.

Symptoms:

- Flushing, itching
- Hives
- Sneezing, runny nose
- Nausea, vomiting, diarrhea
- Abdominal cramping
- Heart irregularities
- Swelling in the throat
- Severe trouble breathing
- Drop in blood pressure (hypotension)
- Loss of consciousness
- Shock

Treatment:

- Give injectable epinephrine (Epi-pen), if available
- Give an antihistamine: Benadryl, Reactine, etc.
- **Call 911 immediately**



IF YOU EXPERIENCE AN ALLERGIC REACTION:

If you experience an allergic reaction to an insect sting, your doctor can refer you to a board certified allergist who can determine whether you have an allergy and what type of insect it may involve. If it turns out that you have an allergy to insect stings, your allergist will probably recommend venom immunotherapy.

Venom immunotherapy is a safe and effective program that can save your life. The venom extract helps the immune system develop a resistance to insect stings and is 98% effective in preventing future allergic reactions.

TIPS TO AVOID BEING STUNG

1. Avoid wearing brightly coloured clothing.
2. Avoid wearing perfumes, colognes, scented lotions and hair sprays.
3. Food odors will attract. Be careful outdoors when cooking, eating or drinking sweet drinks like soda or juice.
4. Keep food well covered.
5. Beware of insects inside straws or canned drinks.
6. Wear long-sleeved shirts, long pants, socks and shoes in woodsy areas.
7. Don't walk barefoot — if you step on or near the insect, it's going to try to protect itself and sting you.
8. Try not to wear loose-fitting clothes in which insects can become trapped.
9. Insects often frequent bird baths and puddles to drink. They also feed at bowls of food and water for pets.
10. Keep the area around garbage cans clean and the garbage tightly covered.
11. The following area often harbour nests of stinging insects: mature trees, shrubs, logs, woodpiles, eaves and shutters of buildings. Be cautious when gardening.
12. If a stinging insect lands on you, gently blow it away. Do not slap it or make rapid, jerking movements.

IDENTIFYING STINGING INSECTS

The following is a list of various stinging insects and their characteristics.

HONEY BEE



- 12 mm (0.5 in) in size.
- Rounded, hairy bodies.
- Dark brown with yellow markings.
- Their colonies are mostly in manufactured hives but they do occasionally nest in holes in large trees or the ground, cavities in building walls, or other protected areas.
- Non-aggressive and will only sting when provoked.
- They have a straight, barbed stinger that can only be used once. It rips out of their abdomen after use, which kills the bee.
- Bees feed only on nectar and pollen from flowers.

WASP



- About 20 mm (0.75 in) in size.
- Smooth-bodied and shiny.
- Black, brown, or reddish in color with yellow markings.
- A slender body with a narrow waist with long spindly legs.
- Slow-flying and their long droopy legs hang below as they fly.
- Nests are suspended from a single, central stalk and have the shape of an upside-down umbrella.
- Made from plant and wood fibres, mixed with saliva then chewed into a paper-like material.
- Found in protected places, such as under the eaves of buildings or in dense vegetation, shrubs or woodpiles.
- Garages and storage sheds are also favorite locations.
- Consume primarily nectar and feed caterpillars to their larvae.
- Do not attack unless provoked.

YELLOW JACKET



- 12–17 mm (0.5–0.7 in) in size.
- Queen is larger, about 2 cm (0.75 in) long.
- Smooth and shiny.
- Bright yellow-and-black alternating bands on the abdomen.
- Distinctive side-to-side flying pattern.
- Lance-like stinger with small barbs and typically sting repeatedly.
- Occasionally the stinger becomes lodged and pulls free of the wasp's body.
- Paper nest but the site of the nest is concealed.
- Nests usually located underground.
- Behind an exterior wall, in hollows of children's playground equipment, etc.
- Scavengers of human food and can be found surrounding trash cans or picnic sites.

YELLOW HORNET



- 12–17 mm (0.5–0.7 in) in size.
- Yellow and black markings.
- Smooth and shiny.
- Lance-like stinger with small barbs and typically sting repeatedly.
- Create exposed aerial nests — a feature shared with true hornets, which has led to some confusion as to the use of the name “hornet”.
- In eaves, attics, bushes, trees.
- Scavengers of human food and can be found surrounding trash cans or picnic sites.

WHITE-FACED HORNET/BALD-FACED HORNET



- 15 mm (0.6 in) in size.
- Black and ivory markings.
- Nests are usually large, grey structures with a pointed end, like a football.
- Made from a paper-like material.
- Nests are interwoven with branches and twigs.
- Nests can be found hanging attached to trees, bushes, low vegetation and buildings.
- Their stinger is straight and smooth, allowing them to sting repeatedly.
- Mostly live prey; prefer to feed on flies and other insects.
- Sometimes visit flowers for nectar.

Immunotherapy with Hymenoptera Venoms

The purpose of immunotherapy with hymenoptera venoms is to attain and then repeat monthly a maintenance dose of venom extract that is sufficient to provide the patient with a significant degree of protection against accidental stings. This protective dose has been determined on the basis of large scale studies to be 100 mcg* of venom for each venom administered.

In order to achieve therapy with such a dose of venom, one has to be prepared to accept local reactions that are somewhat larger than the reactions traditionally judged acceptable with injections of other extracts such as pollens and house dust.

Before being directed to you for continuation of treatment, the patient has received a series of injections at Dr. Yang's office. He or she has reached the maintenance dose of 100 mcg* per venom and should continue to receive such a dose every four weeks.

Should the patient experience a systemic reaction or an excessively large local reaction (more than 10cm wheal) after an injection, or should you feel uneasy for one reason or another about administering the full 100 mcg dose, the patient should be referred back for the next injection(s) to Dr. Yang's office where he or she completed the initial course of treatment. Similarly, should the patient experience systemic manifestations following an accidental natural sting, he or she should be referred back to Dr. Yang's office.

If the patient is referred to allergist's office because of difficulties with administration of the treatment, the patient should be accompanied by a note describing the nature of the reaction and the identity of the venom responsible.

*Except Mixed Vespids venom which is 300 mcg.