# Insect Bites Meeting Kit

## What’s At Stake

**ANALYSIS OF THE STING**

The sting (formally called an aculeus), which is connected to a venom sac, is a modified egg-laying tube (ovipositor). So if you are stung, it was a female insect that did it. In North America, yellow jacket wasps are involved in about 70% of the stings to humans. They are often mistaken for bees because of their yellow and black bodies. Most stinging insects can sting you more than once. One exception is the honey bee (worker bee) which has a barbed sting. When the worker bee escapes after stinging a person, the sting and attached venom sac are ripped out of the bee and stay in the victim’s skin; the bee will die afterwards.

**NESTING SPOTS ARE ANYWHERE**

- Inside hollow trees, or in walls, attic, etc. (the entrance is usually a very small hole).
- Nests that hang from branches or overhangs such as eaves of a building.
- In shrubs, bushes, hedges, or on tree limbs.
- In rubber tires, crates, boxes, abandoned vehicles, etc.
- Under shrubs, logs, piles of rocks and other protected sites.
- Inside rodent burrows or other holes in the ground.

## What’s the Danger

**STING HEALTH HAZARDS.** Most people experience local effects like pain, swelling, itching, and redness around the sting site. Painful stings in the mouth and throat can result if you unintentionally swallowed a wasp or bee (e.g., drinking a soft drink from a can that a wasp had entered).

Some people will experience swelling in a larger area, not just

immediately around the sting site. They may develop hives but no systemic effects (effects in the body away from sting site like effects on breathing and blood flow). This is a mild allergic reaction and can last a few days. The area will be sore and uncomfortable, but one should not give in to the temptation to scratch the stung area. Scratching may cause a break in the skin which could lead to an infection.

**SYMPTOMS FROM STINGS.** In rare cases, a severe allergic reaction can occur. This situation is serious and can cause “anaphylaxis” or anaphylactic shock. Symptoms of anaphylaxis can appear immediately (within minutes) or up to 30 minutes later.

- Hives, itching and swelling in areas other than the sting site.
- Swollen eyes and eyelids.
- Wheezing.
- Tightness in the chest and difficulty breathing.
- Hoarse voice or swelling of the tongue.
- Dizziness or sharp drop in blood pressure.
- Shock.
- Unconsciousness or cardiac arrest.

# HOW TO PROTECT YOURSELF

**OTHER HEALTH STINGS HAZARDS.** If you have experienced a severe allergic reaction to an insect sting in the past, you will likely experience a similar or worse reaction if stung again. Doctors will prescribe a bee sting kit (self-injectable syringe containing epinephrine) to allergic people so they can carry the medication with them at all times. For people who are hypersensitive to stings, wearing a medical alert bracelet will enable first aiders to respond promptly and appropriately to a sting victim who is unconscious.

People who have been stung multiple times (such as when fleeing from a swarm or nest) can sometimes suffer serious health effects. While rare, death may occur. If you have been stung many, many times at once, stung severely, or are experiencing health effects

talk to your doctor.

Although most deaths result from severe allergic reactions, some are caused by direct toxicity of the insect venom. Of those who die from a severe allergic reaction to a sting, half die within 30 minutes, and three-quarters within 45 minutes.

**STING PRECAUTIONS FOR WORKERS – AVOIDANCE AND AWARENESS**

**Before working at a site:**

- Take a look around. Check to see if there are any visible signs of activity or a hive or nest. If you see a number of insects flying around, check to see if they are entering/exiting from the same hole or place. If so, it is likely a nest or a source of food.
- Wear long sleeve shirts, long pants, and closed-toed boots or shoes. If you cannot avoid working near bees or wasps, wear a bee-keepers style hat with netting to cover your head, neck and shoulders. Tape your pant legs to your boots/socks, and your sleeves to your gloves. You may also wish to wear an extra layer of clothing since wasp stings are long enough to reach through one layer of clothing.
- Power tools such as lawnmowers, weed eaters and chainsaws will aggravate the insects. When using these tools, be aware that the tools may provoke the insects or in some cases, cause the insects to swarm.

**Tips when working near stinging insects**

- Most bees and wasps will not sting unless they are startled or attacked. Do not swat at them or make fast movements. The best option is to keep your distance, move away from the nest, or let the insects fly away on their own. If you must, walk away slowly, or gently “blow” them away. The only exception is if you have disturbed a nest and hear “wild” buzzing. Protect your face with your hands and run from the area immediately. Seek shelter in a closed vehicle or building, entering in a way to keep the insects outside.
- Wear light-coloured clothes such as khakis, beige, or blue.

Avoid brightly coloured, patterned, or black clothing.Tie back long hair to avoid bees or wasps from getting entangled in your hair.

- Be careful when shaking out clothing or towels as the insects could be inside the folds.
- If you find a bee or wasp in your car, stop and leave the windows open. You may also take a thick cloth and cover the insect before it gets frightened. Carefully, let the insect back outside through an open window.

**What not to do:**

- Do not wear perfumes, colognes, scented soaps, or powders as they contain fragrances that are attractive.
- Do not go barefoot or wear sandals, where there is clover or flowering plants that attract bees.

# FINAL WORD

Employers should be notified if a worker, especially one who works outdoors, has allergies to insect stings. Co-workers should be trained in emergency first aid, be aware of the signs of a severe reaction, and know how to use the bee sting kit (self-injectable epinephrine).