



Short Safety Subject

Short Safety Subjects are provided by the Public Safety Business Center, Fort Bragg, NC. Our intent is to provide safety topics for the purpose of increasing safety awareness and improving safety performance. Additional Short Safety Subjects are available on the PSBC Business Management Web Site at:

www.bragg.army.mil/psbc-bm/PubsAndForms/ShortSafetySubjects.htm

Insect Bites

Insect bites and stings are common, and most are considered minor. It is only when the insect is poisonous or when the patient has an allergic reaction and runs the risk of developing anaphylactic shock that the situation becomes an emergency. Even under those conditions, accurate diagnosis and prompt treatment can save lives and prevent permanent tissue damage.

The normal reaction to an insect sting is a sharp, stinging pain followed by an itchy, swollen, painful raised area. The swelling may be there for several days but usually goes away within 24 hours. Local reactions are rarely serious or life-threatening and can be treated with cold compresses.

However, there are some people who have allergic reactions to "normal" insect stings. Approximately 50 people die each year in the United States from insect stings. This is more than all other bites combined including snakebites. Thousands of people are allergic to bee, wasp, and hornet stings. Insect stings can be deadly for those people, on the average, within 10 minutes of the sting but almost always within the first hour.

The stinging insects that most commonly cause allergic reactions belong to a group of the hymenoptera, the insects with membranous wings. These include bees, wasps, hornets, and yellow jackets. Stings from wasps and bees are the most common.

Black Widow Spider

The black widow is a spider with a shiny black body, thin legs and an hourglass shaped red/white mark on its abdomen. The female is much larger than the male and is one of the largest spiders in the United States. Males generally do not bite. Females bite only when hungry, agitated or protecting the egg sac. The black widow is not aggressive. They are usually found in dry, secluded, dimly lit areas. More than 80 percent of all bite victims are adult men.

Black widow spider bites are the leading cause of death from spider bites in the United States. The venom is 14 times more toxic than rattlesnake venom. It is a neurotoxin that causes little local reaction but does cause pain and spasms in the larger muscle groups of the body within 30 minutes to three hours. Severe bites can cause respiratory failure, coma and death.

Those at the highest risk are children under age 16, the elderly, people with chronic illness and people with high blood pressure. Signs and symptoms of a black widow spider bite:

- A pinprick sensation at the bite site, becoming a dull ache within 30 to 40 minutes
- Pain and spasms in the shoulders, back, chest, and abdominal muscles within 30 minutes to three hours
- Rigid, board like abdomen
- Restlessness and anxiety
- Fever
- Rash
- Headache
- Vomiting and nausea
- Flushing
- Sweating
- Grimacing

The symptoms usually last 24 to 48 hours.

Treatment:

- Treat for shock
- Apply a cold compress but do not apply ice
- Transport to hospital as quickly as possible

Brown Spiders

There are two types of brown spiders or brown recluse spiders. They often are called violin spiders because of the characteristic "violin-shaped" marking on the upper back. They are generally brown but can range in color from yellow to dark brown. They are timid with webs in dry undisturbed areas.

The bite of the brown spider is a serious medical condition. The bite is nonhealing and causes tissue death. Sometimes surgery is necessary. The bite causes only a mild stinging sensation if any at all. Victims often are unaware they have been bitten. Several hours after the bite, the following signs and symptoms begin to result:

- A small white area appears surrounded by a margin of redness which may produce a mild itching pain.
- A blister appears surrounded by mild swelling and redness.
- A "bulls-eye" or "target" lesion develops
- There may be fever, chills, rash, hives, nausea and pain in the joints over the next few days.

The target lesion will enlarge over the next few days and produce extensive tissue death. There is no antivenom. The lesion will have to be soaked in antiseptic and possibly antibiotics. Surgery may be necessary to cut out the dead tissue.

Scorpions

There are many species of scorpions one is potentially lethal. This is the bark scorpion. It is one of the smaller species being one to one and a half inches long. It prefers places dark and cool, wood piles, palm trees, decorative bark. The severity of the sting depends on the amount of venom injected but scorpion stings can be fatal. Ninety percent of all scorpion stings occur on the hands.

The lethal scorpion is very slender and streamlined. It is straw-colored or nearly opaque, small, less than two inches long. Signs and symptoms of scorpion stings include:

- Sharp pain at the site of the sting
- Swelling that gradually spreads
- Discoloration
- Nausea and vomiting
- Restlessness
- Drooling
- Poor coordination
- Incontinence
- Seizures

Treatment:

- Apply ice to relieve the pain of the sting
- Be sure the victim's airway stays clear
- Transport to a hospital. A specific antivenom is available.