



POISONOUS SPIDERS

INTRODUCTION

Venomous spiders found in the United States include the black widow and the brown recluse. These spiders can be dangerous to outdoor workers. These spiders occasionally find their way inside structures or buildings and can also present a risk to indoor workers including machine operators, janitors, and cashiers ([Bureau of Labor Statistics Monthly Review – Insects bites, and stings cause thousands of workplace injuries](#)). Spiders are usually not aggressive, and most bites occur because a spider is trapped or unintentionally contacted. Employers need to educate their workers about their risk of exposure to venomous spiders, how they can prevent and protect themselves from spider bites, and what they should do if they are bitten.

In California, of the spiders causing serious medical problems, only the black widow and brown recluse are considered serious threats.

HAZARD IDENTIFICATION - BLACK WIDOW

Black widow spiders are found throughout North America but are most common in the southern and western areas of the United States. They are identified by the pattern of red coloration on the underside of their abdomen. They are usually found in workplaces containing undisturbed areas such as woodpiles, under eaves, fences, and other areas where debris has accumulated. They may also be found living in outdoor toilets where flies are plentiful.

Black widow spiders build webs between objects, and bites usually occur when humans come into direct contact with these webs. A bite from a black widow can be distinguished from other insect bites by the two puncture marks it makes in the skin. Venom is a neurotoxin that produces pain at the bite area and then spreads to the chest, abdomen, or entire body.

BROWN RECLUSE

The brown recluse spider, also known as the violin spider, is most found in the Midwestern and southern states of the United States. It is brown in color with a characteristic dark violin-shaped (or fiddle-shaped) marking on its head and has six equal-sized eyes (most spiders have eight eyes). Brown recluse spiders are usually found in workplaces with secluded, dry, sheltered areas such as underneath logs, or in piles of rocks or leaves. If a brown recluse spider wanders indoors, they may be found in dark closets, shoes, or attics.



The brown recluse spider cannot bite humans without some form of counter pressure, for example, through unintentional contact that traps the spider against the skin. Bites may cause a stinging sensation with localized pain. A small white blister usually develops at the site of the bite. The venom of a brown recluse can cause a severe lesion by destroying skin tissue (skin necrosis). This skin lesion will require professional medical attention.

Hazard Mitigation Recommendations

Workers can take the following preventive steps.

In Your Work Area

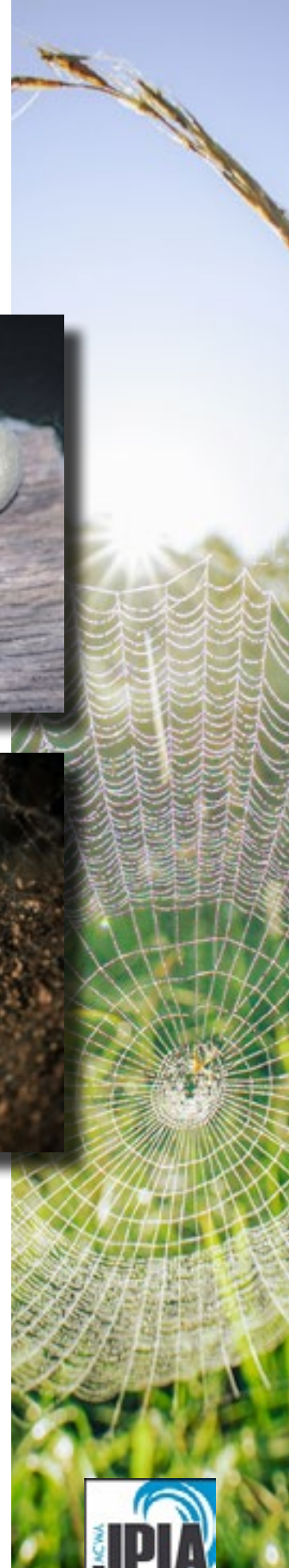
- Check for spiderwebs.
- Minimize the empty spaces between stacked materials.
- Remove and reduce debris and rubble from around the outdoor work areas.
- Trim or eliminate tall grasses from travel paths around outdoor work areas.

Clothing and PPE

- Wear protective clothing such as a long-sleeved shirt and long pants, hat, gloves, and boots when handling stacked or undisturbed piles of materials, or when entering areas where spiders may be present (vaults, manholes, meter boxes, etc.).
- Store apparel and outdoor equipment in tightly closed plastic bags.
- Inspect or shake out any clothing, shoes, gloves, towels, or equipment before use.

Other Measures

- Keep your tetanus boosters up to date (every ten years). Spider bites can become infected with tetanus spores.
- Notify your supervisor of areas where spiders are found to be common/problem areas.
- Follow your employer's integrated pest management plan (add spider repellent).
- Contact a pest and spider control specialist for assistance.



SYMPTOMS AND TREATMENT

The first line of treatment if you suspect a bite is to apply a cold compress. However, if you have a bite and experience other side effects, get medical treatment immediately.

Symptoms

Symptoms associated with spider bites can vary from minor to severe. Although extremely rare, death can occur in the most severe cases. Possible symptoms resulting from a spider bite include the following:

- Itching or rash
- Pain radiating from the site of the bite
- Muscle pain or cramping
- Reddish to purplish color or blister
- Increased sweating
- Difficulty breathing
- Headache
- Nausea and vomiting
- Fever
- Chills
- Anxiety or restlessness
- High blood pressure



First Aid

Workers should take the following steps if they are bitten by a spider:

- Stay calm. Identify the type of spider if it is possible to do so safely. Identification will aid in medical treatment.
- Wash the bite area with soap and water.
- Apply a cloth dampened with cold water or filled with ice to the bite area to reduce swelling.
- Elevate the bite area if possible.
- Do not attempt to remove the venom.
- Notify your supervisor.
- **Immediately seek professional medical attention.**

RESOURCES

- Centers for Disease Control and Prevention – NIOSH - [Venomous Spiders](#)
- [State Compensation Insurance Fund](#) – Insect and Spider Bites
- [University of California Agriculture & Natural Resources](#) – Pests of Homes, Structures, People and Pets – Spiders
- California Poison Control – [Poisonous Bites](#)

