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Ames, Iowa Pm-1721

Potentially Dangerous Spiders

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Most people are aware that spiders are very beneficial because they eat insects, still there is much confusion and unwarranted fear of the potential harm spiders might do to people. Spiders rank just behind bees and wasps as the most feared arthropod. It is common for any unexplained skin irritation to be called a "spider bite."

Spider Bites

Research has shown that over 80% of suspected "spider bites" are caused by other arthropods, such as insects and ticks, or other disease states. Of the more than 3,000 kinds of spiders in the United States, about 60 species have been implicated as causing medically significant bites to people. Many spiders are not capable of breaking the skin with their fangs while other species contain venom that causes no reaction. Spiders are usually very timid and will only bite in self-defense if mishandled, cornered, or injured. Even when they bite, spiders do not always inject venom. The severity of the reaction to a spider bite will differ among individuals. Most spider bites are less painful than a bee sting.

Actual spider bites show two puncture marks although the wound is not always obvious. A rather typical reaction may involve localized reddening and various degrees of swelling, itching, and pain. Within a few hours a small red, blue, or black discoloration can develop around the bite site. The area may remain tender for a few days, and eventually a small sore can develop that soon begins healing. Accurate identification of any spider bite can only be made if the spider causing the bite is captured and identified.

Infrequently bites from some species of sac spiders, wolf spiders, jumping spiders, and cobweb weavers have been observed. There are two types of spiders in the United States, the widow and recluse spiders, that are infamous because of their venomous bites to people. Both the black widow (figure 1) and the brown recluse (figure 2) (neither of which is native to our area) are timid, nonaggressive spiders. Confirmed bites from these spiders are extremely rare in the Upper Midwest.

Northern Widow Spider Bite

The northern widow spider is infrequently found in the Upper Midwest. This species is one of the three closely related "black widows." Black widow spiders are shy and prefer secluded locations such as crawl spaces, attics, garages, and sheds where they construct a tangled, crisscross web. Common web locations are in stacked boards, firewood piles, in rubble, around water meters, under stones or other protected sites. Female northern widow spiders have round, shiny black abdomens, with two touching red triangles (the hour-glass marking) on the underside of the belly. They are up to ½ inch long. The female spends most of the day- light hours in a silken tunnel retreat and is helpless away from her web.



Figure 1. Black Widow

Northern widow bites are often immediately painful. The most reliable evidence of a bite is two tiny red puncture marks around which the pain intensifies during the first three hours. The pain continues for 12-48 hours and then gradually subsides. "Black widow" venom contains a neurotoxin that can cause headache, dizziness, shortness of breath, and often painful abdominal spasms and back pain. Rigidity of limbs, increased blood pressure, and profuse sweating are other symptoms. Death seldom occurs in healthy adults though children and adults in poor health may die within 12-32 hours from asphyxia. Anyone suspecting a spider bite should receive medical attention as soon as possible. A commercial antidote is available for black widow spider bites.

Brown Recluse Spider Bite

The brown recluse spider, *Loxosceles reculsa*, is common outdoors and indoors in the southern and central United States. It is uncommon to extremely rare in the Upper Midwest. Only one specimen has been recorded in Minnesota (1953, Lake County). Only two specimens have been recorded in Wisconsin in the last 25 years. Brown recluse spiders have been reported in several widely scattered sites in southern Iowa since 1969. Specimens have been retrieved and confirmed from only twelve counties.



Figure 2. Brown Recluse Spider

The brown recluse spider is nicknamed the fiddleback or violin spider because of the distinctive dark violin-shaped marking on top of the front body section. Notice the neck of the violin points toward the rear. The brown recluse is unusual in having six eyes instead of the usual eight. The spiders are tan to dark brown and nearly ½ inch in body size. Recluse spiders avoid areas where there is human activity, and prefer closets, guest rooms, basements, and attics. They frequently inhabit shoe boxes, clothing and furniture. These spiders are most active at night and feed on silverfish, crickets, and other insects. Most people are bitten on the hands or feet when they are handling infested items.

The bite of the brown recluse spider is usually painless. However, localized burning sensation often develops within the first hour and during the next 6-12 hours, a small pimple or blister forms. The surrounding tissue begins to darken and take a raised appearance. The venom of this spider can cause extensive tissue damage (necrotic reaction) and over the next 10-14 days, a sunken, open, ulcerated sore up to several centimeters in diameter. It normally takes 6-8 weeks for a brown recluse spider bite to heal. A large sunken scar may persist that requires surgery to repair. Not every brown recluse bite results in ulcer formation. In rare cases systemic complications such as liver or kidney damage result.

See your physician or emergency room as soon as you suspect a brown recluse spider bite. Capture the spider for later identification (crush the specimen, if necessary, but do so as gently as possible).

Common Sac Spider Bite

The bite of a common sac spider (*Chiracanthium*) can be misdiagnosed as a brown recluse spider bite. Injuries develop in a similar manner but are much less severe. Reactions, such as swelling, slow healing, and ulcerated sores around the bite site, are similar enough to be confusing. If you are bit-ten by a spider, ice and elevate the bite site. Seek medical attention if the symptoms persist or intensify. Physicians will often prescribe antibiotics to prevent secondary infections. Most bites will start to improve in a few hours to 2-3 days.

Photography credits:

Figure 1, Clemson University Extension Service

Figure 2, University of Nebraska

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