

Black Widow and Brown Recluse

The fearsome reputation of spiders is vastly exaggerated. All spiders have poison glands and fangs (modifications of chelicerae) that they use to immobilize prey. Most spider venom, however, is not dangerous to humans. Only about 20 species of spiders have bites considered dangerous to humans. Of these, only two are found in North America.

The black widow spider (*Latrodectus mactans*) is found throughout the U.S. and southern Canada. The black widow's venom is a neurotoxin. Its bite is not particularly painful, but symptoms can be severe and include abdominal and leg pain, high cerebrospinal fluid pressure, nausea, muscular spasms, and respiratory paralysis. Since an antivenom is available, human deaths are rare.

The brown recluse spider (*Loxosceles reclusa*) is common in the Midwestern U.S. Its venom is a hemolytic toxin. The effects of a brown recluse's bite are initially confined to the site of the bite and consist of localized tissue death and ulceration. The ulceration, however, quickly spreads to adjacent tissues and creates a large ulcer that is slow to heal. Human deaths from brown recluse bites are likewise rare since an antivenom is available.

Of these two species of spiders, the brown recluse is probably more likely to have encounters with humans. The black widow is usually in the wild—under rocks and logs, in brush piles and in other natural areas. Its distinctive marking—a ventral red hourglass pattern on a shiny black body—is easy to recognize. The brown recluse, on the other hand, lives closely with humans and domestic animals. It is nocturnal, secretive and may go unnoticed. During the winter months, the brown recluse is relatively inactive. While the brown recluse is drab-looking, compared to the black widow, a distinctive violin-shaped mark on the dorsal aspect of the cephalothorax is clearly visible. In the Midwestern U.S., most human dwellings have had or will have brown recluse spiders in residence. Pesticide spraying helps to control these spiders, but the spiders' reclusive habits and inactive periods mean that the sprays do not always reach their intended targets.

The best advice concerning these two species of spiders is to learn to recognize them, and to shake out shoes, boots and other articles of clothing that have not been recently worn. These spiders, like all of their relatives, have exaggerated reputations—but the key to a peaceful coexistence is to respect the spiders' venomous bites