

Just the Facts...

There are five species of widow spiders found throughout North America: the southern black widow (*Latrodectus mactans*), the northern black widow (*L. variolus*), the brown widow (*L. geometricus*), the western black widow (*L. hesperus*), and the red widow (*L. bishopi*). Widow spiders are generally timid, but may bite humans if they or their webs are disturbed.

What do widow spiders look like?

The southern black widow spider presents the classic picture of a female widow spider with glossy black coloring and a red hourglass mark on the underside of the abdomen. In general, mature female widow spiders are about ½ inch in length, have a large, rounded abdomen, and long, slender legs. Female widow spiders have many color patterns (see photographs below):

- Southern black widow: black body with a red hourglass mark on the underside of abdomen.
- Northern black widow: black body with two red spots on the underside of abdomen.
- Brown widow: light-brown body with orange-red marking on the underside of the abdomen, and banding on legs.
- Western black widow: black body with red hourglass mark on the underside of abdomen.
- Red widow: black body with distinctive bright red legs and orange-red half-moon marking on the underside of abdomen.

Males are about half the size of females, with a more elongated abdomen and long legs. Male widow spiders are small and can be difficult to differentiate from other house spiders. Male widow spiders are not venomous, so they are not medically important. Contact preventive medicine personnel for assistance with spider identification.



The five widow spider species found in North America. Females from left to right: southern black widow (*Latrodectus mactans*), northern black widow (*L. variolus*), brown widow (*L. geometricus*), western black widow (*L. hesperus*) [female, top and male bottom], and red widow (*L. bishopi*). Photos: bugwood.org and James Carrel, University of Missouri

Where are widow spiders found?

Widow spiders are found on every continent with the exception of Antarctica. In the U.S., widow spiders can be identified by geographic location:

- The southern black widow spider ranges as far north as New York, south to Florida, and west into Texas, Oklahoma, and Kansas. Southern black widow spiders are also found in California, and throughout the deserts of the American southwest.
- The northern black widow is typically considered an "East Coast" spider and ranges from northern Florida to south-eastern Canada. They are most common in the northern portion of this range.
- The brown widow spider was introduced to Florida and has since moved north through Georgia, and into South Carolina. They have also been officially recorded in California, Alabama, Mississippi, and Texas.
- The western black widow spider ranges from west Texas, Oklahoma, and Kansas and west through the Pacific coast states to the adjacent Canadian provinces.
- The red widow spider is found primarily in sand-pine scrub habitats of central and southeast Florida from Marion County to Martin County.

How dangerous are widow spiders to humans?

Widow spiders are generally timid, and will usually retreat or drop to the bottom of their web when disturbed. However, these spiders will react aggressively to protect their egg sacs. Only adult female spiders are a significant threat to humans. Immature stages and male spiders do not have fangs large enough to penetrate human skin. Widow spider venom is very potent and affects the nervous system, but is injected in such small quantities that deaths are extremely rare. Widow spider bites are most dangerous to very small children, the elderly, and those with serious health problems.

How can I tell I have been bitten by a widow spider?

The bite of a widow spider produces pain at the bite area, which spreads to the chest, abdomen, or the entire body. Often, fangs leave two small, red marks on the skin. Widow spider bites seldom produce much swelling or skin damage at the bite site. If you suspect that you have been bitten by a widow spider, seek medical attention. If possible, safely contain the spider and bring it with you to the hospital for positive identification. Antivenom is available for bites of the southern black widow. Muscle and chest-pain or tightness are the most common reactions to widow spider venom. The pain may also spread to the abdomen, producing cramping and nausea. In severe cases, the toxin can cause breathing and speech difficulty, heart irregularities, and even death from suffocation.



Fang marks of a black widow spider bite. There may be little-to-no visible reaction around the bite. Photo: D. O'Connor © 2014 WebMD, LLC.

How can I reduce my risk of getting bitten by a widow spider?

Avoid widow spiders to protect yourself from bites. Widow spiders often hide in clothing, shoes, and storage areas, and bite in self-defense when people accidentally trap the spider against their skin. Therefore, if you live in an area with a high density of widow spiders, inspect and shake out clothing and shoes before getting dressed. Wear gloves, a long sleeve shirt, long pants, and boots when working in areas where widow spiders may live.

Widow spiders build loose and irregular mesh-type webs to capture insects. Most widow spiders prefer to build their webs near the ground in dark undisturbed areas, on plants, in loose stones, and in wood piles. Indoors, these spiders can be encountered in the corners of rooms, behind furniture, under desks, in garages, outbuildings, basements, and crawl spaces.

What can I do to get rid of widow spiders in and around my home?

Sanitation and exclusion can effectively reduce widow spider populations in and around structures. Avoidance and habitat modification techniques are more effective than widespread application of pesticides. Preventive medicine personnel from the local military treatment facility can identify spiders and provide control recommendations for on-post residents.

Non-chemical, habitat modification approaches: Stop widow spiders from living near your home because they may move indoors. Remove debris/trash, lumber piles, leaf litter, piles of stones, and thick ground covers or dense shrubbery to eliminate potential hiding places around the foundation and walls of the building. Stacked wood provides an ideal habitat for widow spiders so store firewood as far from buildings as possible. Seal cracks and crevices where spiders can come in, especially around windows, doors and pipes. Install tight-fitting screens on attic and foundation vents. Indoors, vacuum cobwebs and spiders from around furniture, fixtures, ceiling corners, floors and baseboards. When finished, immediately remove the vacuum bag, seal it in another plastic bag, and throw away in an outdoor trash receptacle.



Typical outdoor black widow spider habitat. Photo: D. DeLong

Chemical approaches: If living off-post, it is best to hire a professional pest control company. Pesticide application should only be considered as a last resort. However, commercial pesticides are available for widow spider elimination. When applying pesticides, always read and follow all directions for use; the label is the law. In the short term, applying a pesticide may reduce spider numbers, but pesticide applications alone will not provide long-term control or prevent encroachment of widow spiders. Bear in mind that some pesticides and application techniques may encourage spiders to move to harder to reach areas.

Where can I find more information about widow spiders and other venomous spiders?

- Centers for Disease Control and Prevention: <http://www.cdc.gov/niosh/topics/spiders/>
- University of Florida, Entomology and Nematology: http://entnemdept.ufl.edu/Creatures/URBAN/SPIDERS/black_widow_spider.htm

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