

# Red Imported Fire Ant<sup>1</sup> in New Mexico: Potential Medical Problems

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## Guide G-322

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Sooner or later, people living in areas infested with red imported fire ants will encounter these pests. In New Mexico, these aggressive ants have been found on home lawns, along sidewalks and parking areas, on recreational turf, in landscaped planting areas, on rights-of-way along roads and ditch banks, around commercial shipping docks, and near water recycling ponds. New Mexico has many species of native and long-established ants, including the common southern fire ant, but none can cause the potential medical problems presented by red imported fire ants.

Fire ants are potentially aggressive insects that attack in defense when anything disturbs them. Hundreds or thousands of ants respond almost instantly to disturbance of their mounds. Individual ants can and do sting repeatedly. Victims may not even notice they have disturbed the ants in a mound until they feel the sharp, burning pain of hundreds or even thousands of fire ant stings.

For people with disabilities or reduced feeling in their feet and legs, the risk of serious stinging incidents and resulting medical problems may be even greater. Large numbers of ants can sting and even overcome victims before they can safely escape. Young children and others with limited mobility may not be able to escape quickly, thereby sustaining even more stings.

Symptoms of fire ant stings typically include burning, itching, and a white pustule that forms usually within a day or two of the incident. The red imported fire ant injects a venom along with an alkaloid, solenopsin A. This oily fluid is toxic to skin cells and causes the pustule to form by killing cells at the sting site. These dead cells

then attract the body's defensive white blood cells, which accumulate at the wound, forming pus. If the skin is broken by scratching, bacteria may enter. This can cause a secondary infection to develop, delaying healing and potentially causing other medical problems, including scarring.

The venom also contains a small amount of protein (typically less than 10 percent) that has little effect on most people other than creating the itchy welt. However, some people can be quite sensitive to these proteins. For them, even a single sting can lead to a potentially serious condition called anaphylactic shock.

People who are protein sensitive may experience some or all of the following symptoms to some degree: dizziness, nausea, sweating, swelling of the affected area, headache, shortness of breath, and tunnel vision. This can progress rapidly to slurred speech, chest pains, and fainting. Such a victim needs emergency medical care. Anaphylactic shock can quickly lead to coma and death.

People who have past experiences of some or all symptoms of anaphylactic shock should seek professional advice from their physician or allergist before entering or working in areas known to be infested by fire ants. Emergency response kits for use by sting-sensitive individuals are available by prescription only. Fortunately, relatively few deaths from fire ant stings have been documented, compared to deaths from bee and wasp stings. Victims stung to death by fire ants often were not able to escape, sustained large numbers of stings, and suffered allergic reactions to the venom.

<sup>1</sup>Order Hymenoptera; Family Formicidae; scientific name, *Solenopsis invicta* Buren

Tips for avoiding medical emergencies and treating ant stings:

- Teach children and visitors about fire ants and their hazards.
- If you are stung or notice numerous ants crawling on your skin or clothing, immediately escape from what is probably a disturbed mound, brushing ants off as quickly as possible.
- Treat stings with an insect sting or bite remedy containing benzocaine or other ingredients that deaden pain and protect against infection.
- If you or a companion begin to experience any sensations of dizziness, extreme swelling, or shortness of breath after being stung by ants, immediately seek medical assistance. Afterward, get counseling from your physician or allergist about the advisability of getting a prescription for an emergency sting response kit.
- Watch where you walk or stand. Avoid disturbing mounds of loose soil.
- Wear protective clothing during outdoor activities. Wear shoes or boots and/or tuck pant legs into socks.
- Control fire ants in areas used frequently by people and pets. Be especially aware of ant problems in any area where children, pets, or livestock are confined.

For more publications on red imported fire ant, contact your county Extension office. You can also visit the college's World Wide Web site at [www.cahe.nmsu.edu/pubs/](http://www.cahe.nmsu.edu/pubs/), then scroll down to "How-to Publications," OR contact the Bulletin Office at (505) 646-2701, or [bulletin@nmsu.edu](mailto:bulletin@nmsu.edu).

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