

The tick that makes people allergic to red meat with one bite seems to be spreading



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With most food allergies, it takes only 15 or 20 minutes after exposure for severe reactions to occur. A bite of shrimp or lobster, and before long a person's throat starts to close and parts of their body begin to swell. It's scary and potentially life-threatening, but they usually can seek immediate treatment and pinpoint the food that caused the problem.



The Lone Star tick, in the middle here, between a deer tick and a dog tick, is the one that can spread the meat allergy.

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The allergy to mammalian meat like beef, pork, and lamb that's spread by a bite from a Lone Star tick is different.

"The weird thing about [this reaction] is it can occur within three to 10 or 12 hours, so patients have no idea what prompted their allergic reactions," said Dr. Ronald Saff, an allergist in Tallahassee, Florida, and an assistant clinical professor at the Florida State University College of

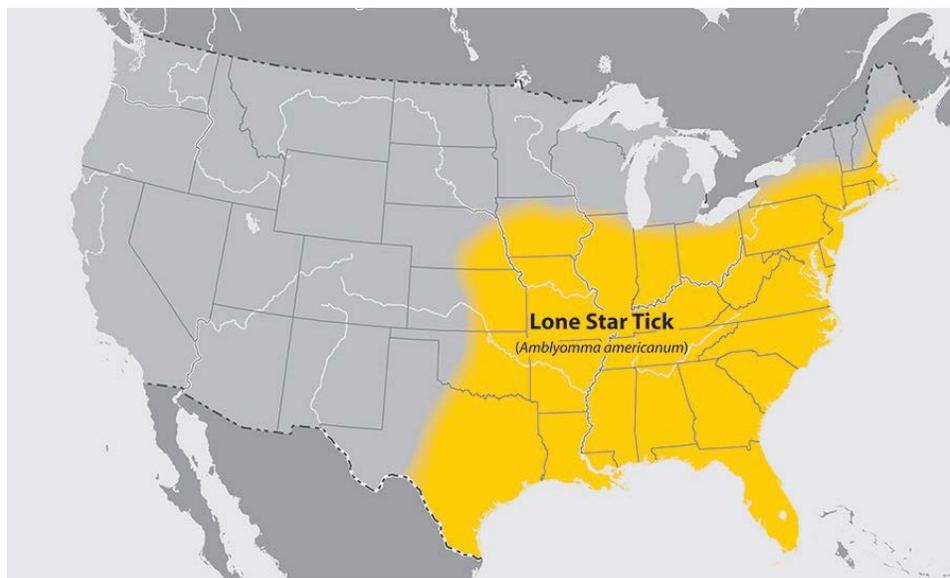
Medicine.

The symptoms are often severe — hives and shortness of breath are common, and a dangerous anaphylactic reaction is possible. But they seem to appear out of the blue, often the night after eating a burger or steak.

"They're sleeping, and they have no idea what they could be allergic to because the symptoms occurred so many hours after going to bed," Saff said.

The ticks are spreading to new locations, where they're making people allergic to even a single bite of meat. But since this allergy is still relatively new and not well-known, especially outside the Southeast, it's hard to say exactly how common it is.

It's is new enough that states **aren't required to report it** to the Centers for Disease Control and Prevention yet, but Saff says he's now seeing a couple of patients every week who have been bitten by ticks and developed it, known as an alpha-galactose, or alpha-gal, allergy.



We don't know whether the allergy spread by the ticks exists in all these locations, but it's possible. CDC

One single bite

The tick that spreads this allergy is called the Lone Star tick, named for the shape of the white splotch on the back of adult females. Lone Star ticks at all stages of life bite humans — even the tick's larvae, unlike those of **all other American ticks** — and can be "quite aggressive," **according to the CDC**. The tick also feeds on and may catch a ride on cats and dogs.

The Lone Star tick is most common in the Southeast, where Saff practices, but in recent years it has spread up the East Coast and into the Midwest,

with large numbers being **reported all the way up in Maine**. Within the last year, outbreaks of alpha-gal allergy **have occurred** in Minnesota, New Hampshire, and on the tip of Long Island.

Much about the Lone Star tick and alpha-gal is a mystery. We know something in the tick's bite causes changes in people that make them sensitive to a sugar compound (alpha-galactose) that exists in meat from mammals. Some people develop more sensitivity than others, and a few can tolerate small amounts of meat, but **some become so allergic** that they can't even consume animal products like dairy milk.

No one **knows for sure whether** the allergy goes away with time, but scientists think that both additional tick bites and meat consumption might worsen the condition.

The **distribution, range, and abundance** of Lone Star ticks have all increased over the past 20 to 30 years, according to the CDC. And warmer summers could make that situation even worse.

"We expect with warming temperatures, the tick is going to slowly make its way northward and westward and cause more problems than they're already causing," Saff said.