The Aggressive Tick That Triggers Meat Allergy: What To Know In MD

Ticks are common in Maryland and can spread illnesses, including a new meat allergy, the CDC says. Lyme disease is also tied to ticks.

Ticks are a common pest in Maryland and are capable of spreading a host of maladies, including a new meat allergy, the CDC says. This lone star tick is linked to the allergy, while the deer tick or black legged tick causes Lyme disease.

MARYLAND — The aggressive lone star tick, which is linked to a mysterious meat allergy and whose larvae travel in what are colloquially called "tick bombs," isn't the only species of the arachnids Maryland residents should be concerned about.

Lyme disease-spreading black-legged ticks, found throughout the country but most commonly in the eastern half, pose the greatest threat to Maryland residents. Other tick borne illnesses to be aware of in the state are Spotted Fever Rickettsiosis, Anaplasmosis (a bacterial disease), Babesiosis (an infection of red blood cells) and Ehrlichia chaffeensis ehrlichiosis (a bacterial infection that can be fatal), according to U.S. Centers for Disease Control and Prevention data.

Researchers are becoming increasingly concerned about the spread of the lone star tick. Identifiable by the white starlike splotch on the backs of adult females, the larvae hunt in packs — hence, the tick bomb moniker.

“When you find one, you usually make, I always jokingly say, 500 new best friends crawling up your leg,” Holly Gaff, a professor of biological sciences at Old Dominion University in Norfolk, Virginia, told Consumer Reports.

Meat Allergy Is A Mystery

Scientists are unsure why some people bitten by the tick develop a potentially life-threatening allergy to the red meat protein alpha-gal and others don’t, or if the allergies were triggered by something other than the tick bite. AGS, as the allergy is known, can be difficult to diagnose. Unlike other allergies, the symptoms may not appear for several hours after eating red meat. Some people develop an allergy to other products from mammals, including dairy products, and some may develop an allergy to certain medications. There is no known cure or treatment.

From Jan. 1, 2017, to Dec. 31, 2022, some 90,000 people tested positive for the allergy, according to the CDC. Cases, primarily reported in the southern, midwestern and Mid-Atlantic Census regions, increased from 13,371 in 2017 to 18,885 in 2021.

What Else Can Happen?

The most common illness from a lone star tick bite is ehrlichiosis, whose symptoms include a fever, muscle aches, nausea and vomiting, and a rash.

In Maryland, there were 11 reported cases per million residents of ehrlichiosis, according to CDC data.

The CDC typically receives reports of around a thousand cases of ehrlichiosis a year but fielded more than 2,000 reports in 2019 — likely an undercount because symptoms are usually mild and can be similar to those of other tick borne illnesses, according to experts.

Lone star ticks are among species that can spread the bacteria that causes the rare but sometimes fatal illness tularemia. The species is also thought to be the primary vector of the emerging Heartland virus, which had by 2022 sickened about 60 people, primarily in the Midwest and South.

Some of the cases were fatal, Gonzalo Vazquez-Prokopec, an associate professor in the Department of Environmental Sciences at Emory University in Atlanta, told Consumer Reports. This may also represent an undercount due to the fact that some people are asymptomatic or have only mild symptoms.

Also, while the lone star tick doesn’t spread Lyme disease, it can transmit an imposter, southern tick-associated rash illness, or STAR.

The Tick Most Likely To Bite

Experts told Consumer Reports that lone star tick numbers could soon surpass the black-legged tick.

That already appears to be happening in New Jersey, where people who submitted ticks for identification in Monmouth County between 2006 and 2016 were more likely to send lone star ticks than the black-legged ticks, according to a study published in the journal PLOS One.

Other studies show the species is rapidly spreading in areas of Delaware, New York, Connecticut and other states.

The six species of ticks found in Maryland — most capable of transmitting diseases — according to the University of Maryland Extension are:

- American dog tick
- Blacklegged tick or deer tick
- Brown dog tick
- Lone star tick
- Gulf coast tick
- Asian longhorned tick

Although more serious in terms of the viruses and bacteria it spreads, the black-legged tick is less likely than the lone star tick, the most aggressive of tick species, to bite in areas where both are common.

Why Are They Spreading?

The lone star tick used to be confined to the Southwest but is now commonly found throughout the eastern U.S. and even as far north as Canada.

Some scientists say a warming climate more hospitable to lone star ticks may be one reason for their spread, while others suggest the ticks are reestablishing themselves in areas where they were once common before their forest habitat was cleared for development.

Also, lone star ticks travel with a preferred host, deer, whose populations have rebounded in areas where forests have been reestablished.

How to protect yourself from ticks

1. Wear long pants, long sleeves, and close-toed shoes. Tuck pants into socks. Tuck shirts into pants.
2. Wear clothing/shoes treated with the tick repellent *permethrin*. It kills ticks on contact with the clothing.
3. Avoid sitting on logs, stumps, or the ground in brushy areas. Periodically inspect clothing and your body before ticks become attached. Use a lint roller brush to remove ticks from clothing.
4. Use insect repellents (such as DEET) according to label directions. Put sunscreen on first, then repellent. Never use DEET under clothing or on pets.
5. Shower when possible after being outdoors.
6. Throw clothes in a hot dryer for 10 minutes before washing, to kill any lingering ticks that may be attached to clothing.

How to remove a tick

If a tick is found attached, remove it as soon as possible with a slow, steady pull. It is best to use forceps with the tips placed on or just behind the mouthparts. Pull the tick's body away from your skin.

DO NOT USE Vaseline, liquid soap, a cotton ball, or touch it with a match. It is OK if the tick's head or mouthparts remain in the skin. Disinfect the attachment area. Save the tick on a piece of clear tape and place it in the freezer, noting the date it was removed. You can send the tick to a lab to be identified.