

Emerging Tick Bite-Associated Meat Allergy Potentially Affects Thousands

Yet many healthcare providers not familiar with the allergic condition.

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The CDC reports that between 2010 and 2022, there were more than 110,000 suspected cases of [alpha-gal syndrome](#) identified. However, because the diagnosis of alpha-gal syndrome requires a positive diagnostic test and a clinical exam, and some individuals with alpha-gal syndrome may not get tested, it is estimated that as many as 450,000 people might have been affected by AGS in the United States, according to two reports issued today by the CDC in the [Morbidity and Mortality Weekly Report](#).

Studies show that many healthcare providers in the United States are not familiar with an emerging and potentially life-threatening allergic condition called alpha-gal syndrome (AGS), also known as the red-meat allergy or the tick bite meat allergy. Of those aware of AGS, knowledge about diagnosis and management is low.

In one study, 1,500 family/general practitioners, internists, pediatricians, nurse practitioners (NPs), and physician assistants (PAs) across the country were surveyed, and results showed that nearly half of respondents had not heard of AGS, approximately one-third reported that they were ‘not too confident’ in their ability to diagnose or manage patients with AGS, and five percent felt ‘very confident’ in their ability.

In another study, CDC researchers examined laboratory test results from 2017 to 2022 from a laboratory that, until August 2021, was the primary commercial lab offering testing in the United States. More than 300,000 specimens were submitted by healthcare providers on behalf of patients with presumed clinical suspicion of AGS, and more than 30 percent were positive.

“Alpha-gal syndrome is an important emerging public health problem, with potentially severe health impacts that can last a lifetime for some patients,” said Dr. Ann Carpenter, epidemiologist and lead author of one of the papers released today. “It’s critical for clinicians to be aware of AGS so they can properly evaluate, diagnose, and manage their patients and also educate them on tick-bite prevention to protect patients from developing this allergic condition.”

Alpha-gal is a sugar found in meat from mammals (pork, beef, rabbit, lamb, venison, etc.) and products made from mammals (e.g., gelatin, cow’s milk, milk products, some pharmaceuticals).

AGS is a serious allergic condition some people experience after they consume food or products containing alpha-gal.

Growing evidence suggests that AGS is primarily associated with the bite of a lone star tick in the United States, but other kinds of ticks have not been ruled out. Localities in the southern, midwestern, and mid-Atlantic regions of the United States identified more people who tested positive.

“The burden of alpha-gal syndrome in the United States could be substantial given the large percentage of cases suspected to be going undiagnosed due to non-specific and inconsistent symptoms, challenges seeking healthcare, and lack of clinician awareness,” said Dr. Johanna Salzer, senior author on both papers released today. “It’s important that people who think they may suffer from AGS see their healthcare provider or an allergist, provide a detailed history of symptoms, get a physical examination, and a blood test that looks for specific antibodies (proteins made by your immune system) to alpha-gal.”

People who suffer from AGS may experience wide ranging symptoms, including hives or itchy rash; nausea or vomiting; heartburn or indigestion; diarrhea; cough; shortness of breath or difficulty breathing; drop in blood pressure; swelling of the lips, throat, tongue, or eye lids; dizziness or faintness; or severe stomach pain. Symptoms commonly appear 2-6 hours after eating food or other exposure to products containing alpha-gal (for example, gelatin-coated medications).

AGS is diagnosed by an allergist or other healthcare provider and requires a thorough history with compatible symptoms, and diagnostic testing for antibodies specific to alpha-gal. Your healthcare provider may also recommend allergy skin testing.

[Preventing tick bites](#) is important in preventing tickborne disease and can reduce your chances of developing AGS. Find [more information about AGS](#).

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