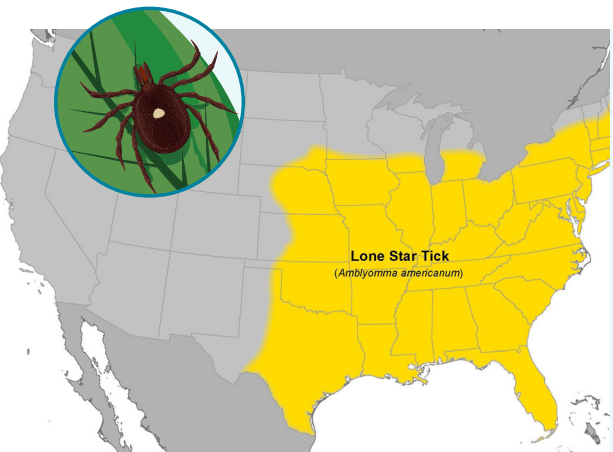


Supporting Patients with Alpha-gal Syndrome (AGS)

AGS, sometimes called red meat allergy, is a serious, potentially life-threatening allergy to a carbohydrate known as alpha-gal (galactose- α -1,3-galactose). Patients can manage AGS with the help of their healthcare provider.

CDC estimated in 2023 that as many as 450,000 people in the United States may be affected by AGS. For some patients, diagnosis can take years after the onset of symptoms, but this delay may be decreasing as awareness improves. Healthcare providers who serve patients in areas with lone star ticks should know how to recognize the symptoms of and test for AGS to provide a timely diagnosis for patients.



In the United States, the lone star tick is widely distributed in the Northeast, South, and Midwest.

AGS is caused most commonly by tick bites, especially lone star tick bites in the United States. When a tick bites, it can transfer alpha-gal from its saliva into a person's blood. This can result in a person's immune system creating antibodies against alpha-gal. This can trigger an allergic reaction the next time a person is exposed to alpha-gal containing foods or products.

Alpha-gal is found in:



Meat of mammals, e.g., beef, pork, mutton/lamb, venison, and game meat



Animal milk (dairy) products



Gelatin and other food and medication ingredients derived from mammals

Recognize Signs & Symptoms

- **Delayed reaction:** It can take weeks or months after a tick bite to start seeing symptoms. When symptoms do start, they usually appear 2-6 hours after eating red meat or dairy products.
- **Varying symptoms:** AGS symptoms can range from mild to severe, and some may be life-threatening. People with AGS might not react to every product containing alpha-gal, and some people can experience different symptoms or reactions each time they are exposed to alpha-gal, even when it is the same product.

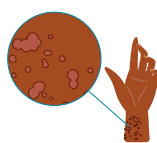
Symptoms can include:



Gastrointestinal

Some patients only have gastrointestinal symptoms

- Heartburn
- Nausea
- Diarrhea
- Abdominal pain



Skin or mucous membrane

- Urticaria (hives)
- Angioedema



Respiratory

- Cough
- Wheeze
- Difficulty breathing



Cardiovascular

- Hypotension: dizziness and syncope



Anaphylaxis

Requires emergency care





Know When to Consider AGS

AGS is diagnosed through a detailed patient history, physical examination, and a blood test. Consider AGS when your patient:

- Experiences symptoms and lives in or recently visited an area with lone star ticks, reports tick bites, or spends time outdoors
- Reports waking up in the middle of the night with symptoms
- Has anaphylaxis of unknown cause, or recurrent, unexplained allergic reactions that cannot be linked to other allergens
- Acquires an adult-onset allergy
- Has a positive alpha-gal IgE blood test in addition to the above experiences (a positive test alone does not confirm AGS)

Help Your Patients Manage AGS

Work with your patients to:

- Identify and avoid products containing alpha-gal, including red meat or dairy
- Determine the need for epinephrine (e.g. auto-injector, nasal spray)

You can also consider referring them to an allergist. Over time, some patients may be able to tolerate exposure to products containing alpha-gal again. If symptoms do not resolve 1-2 months after removing red meat from their diet, ensure all alpha-gal has been eliminated from their diet and consider other diagnoses and referral to an allergist or other specialist.

Encourage patients to:

- Seek emergency care if experiencing severe reactions
- Schedule a follow-up appointment 1-2 months after diagnosis to reassess
- Educate themselves on what products contain alpha-gal
- Read food product labels carefully to avoid products that contain alpha-gal
- Prevent tick bites because new tick bites may reactivate reactions to alpha-gal

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