

When a tick bite causes a red meat allergy

Alpha-gal syndrome (AGS)

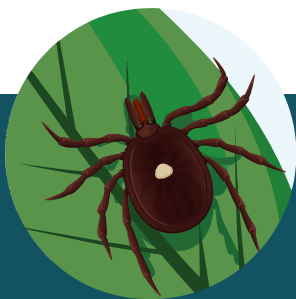
About AGS

AGS is a serious, potentially life-threatening allergy and tickborne disease. As many as 450,000 people in the United States may be affected by AGS.

Alpha-gal is a molecule that is naturally produced in the bodies of most mammals but not in people. It is also found in the saliva of some ticks.

When a tick bites, it can transfer alpha-gal from its saliva into a person's blood. The body's natural defense, or immune system, can identify alpha-gal as a threat and trigger an allergic reaction.

AGS is caused by tick bites, though more research is needed to understand the role ticks play in causing AGS. In the United States, AGS is primarily associated with the bite of a lone star tick. Not every person bitten by a lone star tick will develop AGS, and it can take weeks to months for a person to have symptoms after being bitten.



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



Alpha-gal is found in



Beef, pork, lamb, venison, rabbit, or other meat from mammals



Animal milk (dairy) products



Some non-food products with ingredients from mammals, like gelatin, glycerin, magnesium stearate, and bovine extract

Symptoms of AGS

Symptoms commonly appear 2-6 hours after a person with AGS is exposed to products containing alpha-gal.

AGS reactions can include:

- Hives or itchy rash
- Nausea or vomiting
- Severe stomach pain
- 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
- A combination of symptoms referred to as anaphylaxis

How AGS is diagnosed

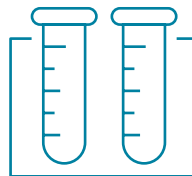
Healthcare providers diagnose AGS using:



A physical examination



A detailed patient history



A blood test that looks for antibodies that your body makes in response to alpha-gal

Living with AGS

- Most healthcare providers recommend patients with AGS stop eating meat from mammals, such as beef, pork, lamb, venison, or rabbit.
- Some patients need to eliminate other sources of alpha-gal, such as dairy and certain medications.
- Patients can work with their healthcare provider to determine which sources of alpha-gal should be avoided.

Prevent tick bites to protect yourself from AGS



Use Environmental Protection Agency (EPA)-registered insect repellent.



Shower and perform a thorough tick check after spending time outdoors. If you find a tick, remove it as soon as possible.



See a healthcare provider if you develop AGS symptoms after eating red meat or other products containing alpha-gal. Tell the provider if you had a recent tick bite.



For more information, visit cdc.gov/alpha-gal-syndrome