



Alpha-Gal Syndrome

What is Alpha-Gal Syndrome (AGS)?

Alpha-gal syndrome (AGS), also known as “red meat allergy,” is an allergic condition caused by the bite of certain tick species—most notably the lone star tick—whose saliva triggers an immune overreaction to alpha-gal (galactose- α -1,3-galactose), a sugar molecule found in mammalian meat and products made from mammals.

Where Can AGS Be Found?

In the United States, AGS is often found in South, East, and Central states, although it has been identified in most states.

Symptoms and Timeline

Reactions can range from mild to life-threatening, often striking two to six hours after exposure to products containing alpha-gal.

Symptoms can include hives or rash, severe stomach pain, nausea or vomiting, diarrhea, shortness of breath, swelling of the lips, tongue, or throat, a sudden drop in blood pressure, or a combination of symptoms known as anaphylaxis.

Burden of AGS

Between 2010 and 2022, more than 110,000 suspected cases were identified in the U.S., with experts estimating that the true number could exceed 450,000.

Projections of future AGS cases are rising, driven in part by climate and land-use change, which alter tick and wildlife host ranges and increase human-tick contact. Most cases of AGS have been reported in adults, but people of all ages can develop AGS.

AGS and Red Meat

Alpha-gal is found in mammalian meat such as beef, pork, lamb, venison, bison, goat, and rabbit. Other mammal-derived products that may contain alpha-gal include milk and dairy products, gelatin made from beef or pork, and foods made from or cooked with mammal fat such as lard or tallow.

Prevention

- Prevent tick bites by using EPA-registered repellents, wearing protective clothing, and checking for ticks after spending time outdoors.
- Shift away from red and processed meat toward plant-based proteins, which can reduce chronic disease risk and environmental impacts as tick-borne diseases like AGS expand.

References

- Centers for Disease Control and Prevention (CDC). Alpha-gal syndrome. January 5, 2026. Accessed February 4, 2026. <https://www.cdc.gov/alpha-gal-syndrome/index.html>
- Alpha-Gal Information Center. Where Alpha-Gal Syndrome is found. Accessed February 4, 2026. <https://alphagalinformation.org/where/>

This fact sheet provides basic information only. For specific health concerns, please contact a healthcare provider. Updated April 2026.