



HEALTH ADVISORY #229

Alpha-gal Syndrome is Now Reportable in West Virginia

TO: West Virginia Healthcare Providers, Hospitals, and Other Healthcare Facilities

FROM: Shannon McBee, MPH, CHES State Epidemiologist, West Virginia Department of Health, Bureau for Public Health

DATE: September 11, 2025

LOCAL HEALTH DEPARTMENTS: Please distribute to community health providers, hospital-based physicians, infection control preventionists, laboratory directors, and other applicable partners

OTHER RECIPIENTS: Please distribute to association members, staff, etc.

Situation

In June 2025, **Alpha-gal Syndrome (AGS)** became a reportable condition in West Virginia. Healthcare providers and laboratories are required to report cases of AGS to the West Virginia Department of Health. Since implementation, **14 confirmed cases** have been reported, with several others under investigation.

Background

Alpha-gal Syndrome (AGS) is an IgE-mediated allergic condition associated with tick bites, particularly the lone star tick, which is common in West Virginia. Ticks can transmit the alpha-gal sugar molecule through saliva. In some individuals, this exposure triggers the immune system to produce allergen-specific IgE antibodies against alpha-gal, which is found in mammalian meat and dairy products. AGS is also known as the “red meat allergy.” It can range from mild to life-threatening and is often underdiagnosed.

Clinical Characteristics

Symptoms typically occur 2–6 hours after ingestion of mammalian products or within 2 hours after parenteral exposure.

Symptoms may include:

- Nausea, vomiting, abdominal pain, heartburn, indigestion
- Hives, itching
- Swelling of lips, tongue, throat, and/or face
- Cough, wheezing, shortness of breath
- Acute hypotension
- Anaphylaxis

Common triggers include: beef, pork, venison, rabbit, dairy, gelatin, meat-based broths, and some pharmaceuticals (including capsule coatings). Poultry and fish are not associated with AGS.

This message was directly distributed by the West Virginia Bureau for Public Health to local health departments and professional associations. Receiving entities are responsible for further disseminating the information as appropriate to the target audience.

Categories of Health Alert messages:

Health Alert: Conveys the highest level of importance. Warrants immediate action or attention.

Health Advisory: Provides important information for a specific incident or situation. May not require immediate action.

Health Update: Provides updated information regarding an incident or situation. Unlikely to require immediate action.

Diagnosis

Diagnosis should be made by a healthcare provider, often an allergist, using:

- Serum or plasma immunoglobulin E (IgE) specific to alpha-gal, or
- Allergy skin testing showing sensitivity to mammalian meat or mammalian-derived products

Recommendations for Healthcare Providers

- Consider AGS in patients with delayed allergic reactions following consumption of red meat, dairy, or mammalian-derived products.
- Refer patients to an allergist for diagnostic testing and management.
- Counsel patients on strict avoidance of mammalian meat, dairy, and other triggers.
- Educate patients on tick bite prevention:
 - Avoid wooded/brushy areas with tall grass and leaf litter
 - Use 0.5% permethrin-treated clothing or EPA-registered repellents (e.g., DEET)
 - Perform tick checks on self, children, and pets after outdoor activity
 - Shower within 2 hours of being outdoors and tumble dry clothing on high heat
 - Keep pets on veterinarian-recommended tick prevention
- Current research AGS does suggest that some individuals may experience improvement or even remission over time, especially with strict avoidance of tick bites (particularly the Lone Star tick in the U.S.) and adherence to an alpha-gal-free diet.

Public Health Reporting Requirements

Healthcare providers and laboratories must report suspected or confirmed cases of AGS to the West Virginia Department of Health by:

1. Completing the [Alpha-gal Syndrome Case Report Form](#)
2. Faxing completed forms and positive laboratory results to the WV Office of Epidemiology and Prevention Services: (304) 558-8736
3. Submitting laboratory results via electronic laboratory reporting (if available)

Resources

- CDC Case Definition: [Alpha-gal Syndrome, 2022](#)
- WV Bureau for Public Health: [Alpha-gal Syndrome](#)

For any questions, please contact the Epidemiologist on-call at (304) 558-5358, extension 2.

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