

Alpha-gal Syndrome

What is alpha-gal?

- Alpha-gal (galactose- α -1,3-galactose) is a sugar molecule found in most mammals.
- Alpha-gal is not found in fish, reptiles, birds, or people.
- Alpha-gal can be found in meat (for example, pork, beef, rabbit, lamb, venison) and products made from mammals (including gelatin, cow's milk, and milk products).

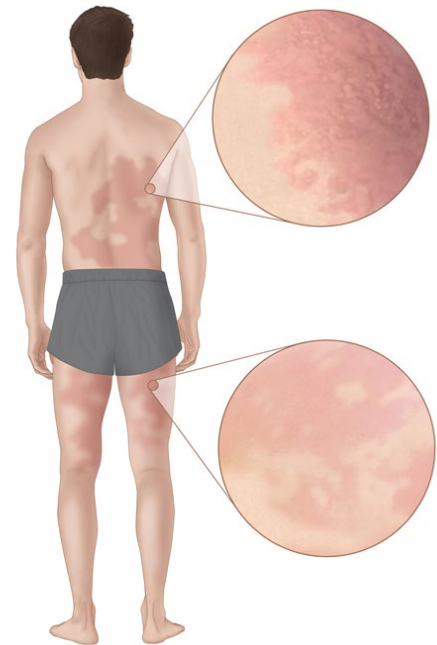


What is alpha-gal syndrome?

Alpha-gal syndrome (AGS) (also called alpha-gal allergy, red meat allergy, or tick bite meat allergy) is a serious, potentially life-threatening allergic reaction. AGS symptoms occur after people eat red meat or are exposed to other products containing alpha-gal. AGS can have life-changing effects.

AGS reactions can include:

- 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
- Severe stomach pain



Symptoms usually appear 2–6 hours after eating meat or dairy products, or after exposure to products containing alpha-gal (for example, gelatin-coated medications). People may not have an allergic reaction after every alpha-gal exposure.

If you think you may have AGS see your healthcare provider.



**U.S. Department of
Health and Human Services**
Centers for Disease
Control and Prevention

Alpha-gal and ticks

Growing evidence suggests that this reaction may be triggered by the bite of lone star ticks in the United States, but other kinds of ticks have not been ruled out. Lone star ticks are found throughout the southeastern and eastern United States.

What can I do to prevent AGS?

Preventing tick bites is important in preventing tickborne disease and may reduce your chances of developing AGS.

Before you go outdoors

- Avoid grassy, brushy, and wooded areas, where ticks may be found.
- Use Environmental Protection Agency (EPA)-registered insect repellent on skin.
- Treat clothing and gear with permethrin 0.5% or buy pre-treated items.

After you come indoors

- Check your clothing for ticks.
- Shower and perform a thorough tick check.
- Remove attached ticks immediately. For instructions visit https://www.cdc.gov/ticks/removing_a_tick.html.
- Take steps to prevent ticks on your pets and in your yard.

What should I do if I think I have AGS?

- AGS should be treated and managed by an allergist or other healthcare provider.
- Many foods and products contain alpha-gal; you will need to work with your healthcare provider to understand which products you need to avoid. Not all patients with AGS have reactions to every ingredient containing alpha-gal.
 - » Most healthcare providers recommend patients with AGS stop eating mammalian meat (such as beef, pork, lamb, venison, rabbit).
 - » Depending on your sensitivity and the severity of your allergic reaction, your healthcare provider may also suggest you avoid other foods and ingredients which may contain alpha-gal (such as cow's milk, milk products, and gelatin).
 - » Although very rare, some people with severe AGS may react to ingredients in certain vaccines or medications. Talk to your healthcare provider before taking a new medication or receiving a vaccine.
 - » Patients with AGS should avoid tick bites. New tick bites may reactivate allergic reactions to alpha-gal.

Distribution of lone star ticks
(*Amblyomma americanum*)

