

Alpha-gal Syndrome

Products that may contain alpha-gal

For Public Health Officials

What is alpha-gal?

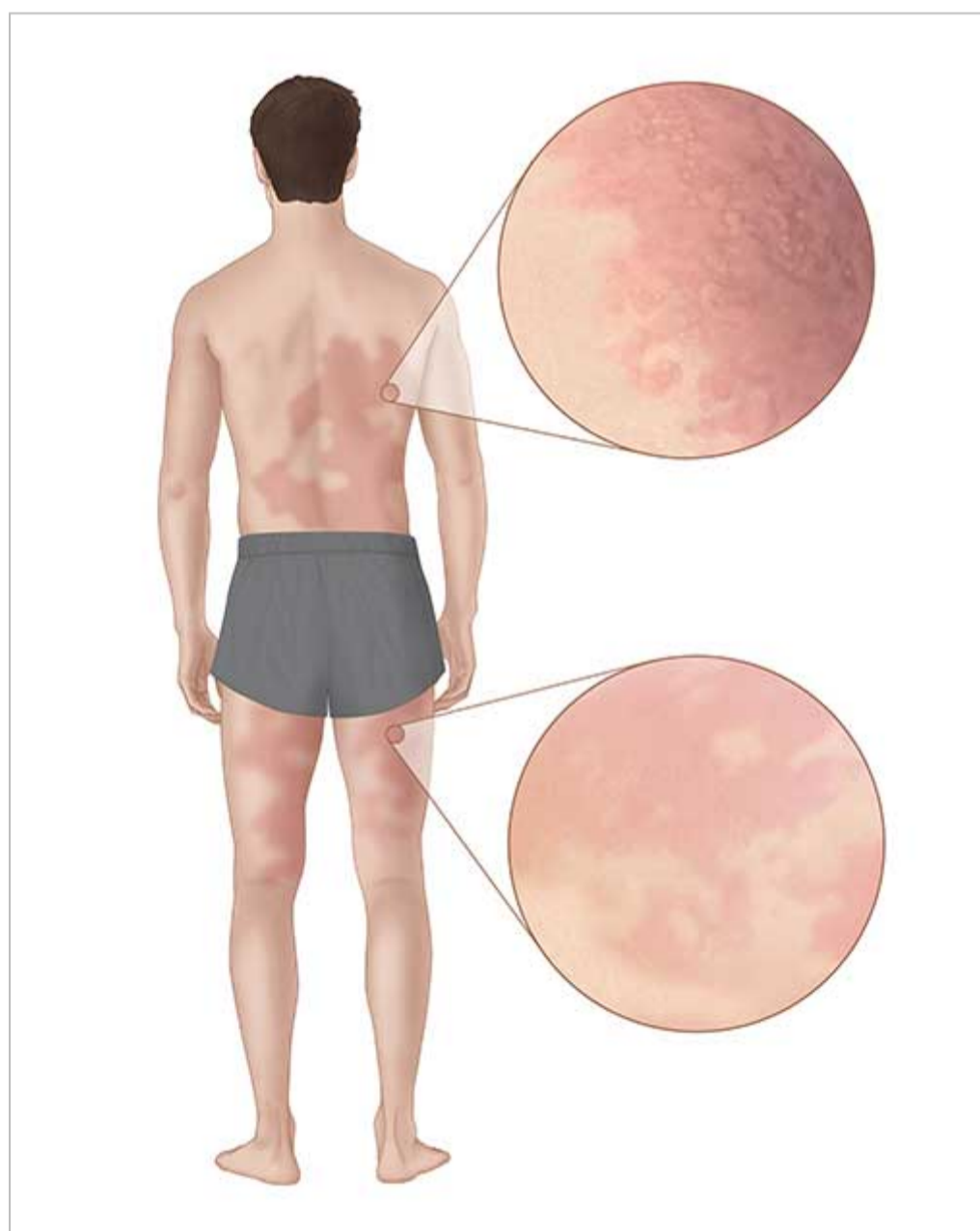
- Alpha-gal (galactose- α -1,3-galactose) is a sugar molecule found in most mammals.
- Alpha-gal is **not** found in fish, reptiles, birds, or people.
- Alpha-gal can be found in meat (pork, beef, rabbit, lamb, venison, etc.) and products made from mammals (including gelatin, cow's milk, and milk products).

What is alpha-gal syndrome (AGS)?

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 is not caused by an infection. AGS symptoms occur after people eat red meat or are exposed to other [products containing alpha-gal](#).

What are the symptoms of AGS?

- AGS reactions can include:
 - Rash
 - Hives
 - 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 commonly appear 2-6 hours after eating meat or dairy products, or after exposure to products containing alpha-gal (for example, gelatin-coated medications).
- AGS reactions can be different from person-to-person. They can range from mild to severe or even life-threatening. Anaphylaxis (a potentially life-threatening reaction involving multiple organ systems) may need urgent medical care.
- People may not have an allergic reaction after every alpha-gal exposure.
- If you think you may have AGS go talk to your healthcare provider.



AGS can be severe, and even life-threatening. Seek immediate emergency care if you are having a severe allergic reaction.

Can I get AGS from a tick bite?

- Growing evidence suggests that AGS may be triggered by the bite of a lone star or blacklegged tick in the United States. Other tick species have been connected with the development of AGS in other countries.
- More research is needed to understand the role ticks play in starting this reaction, and why certain people develop AGS.

How do I know if I have AGS?

- AGS is diagnosed by an allergist or other healthcare provider through a detailed patient history, physical examination, and a blood test that looks for specific antibodies (proteins made by your immune system) to alpha-gal.
- Your healthcare provider may also recommend allergy skin testing.

What should I do if I have AGS?

- AGS should be treated and managed under the care of 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.
- [Prevent tick bites](#). New tick bites may reactivate allergic reactions to alpha-gal.

I have AGS, what foods and products do I 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, etc).
- 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).
- [Read food product labels](#) [↗](#) carefully.
- 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.

Who gets AGS?

Anyone could get AGS.

- Most reported cases of AGS in the United States are among people living in the South, East, and Central United States.
- While people in all age groups can develop AGS, most cases have been reported in adults.

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.
 - Treat clothing and gear with permethrin or buy pre-treated items.
 - Use [Environmental Protection Agency \(EPA\)-registered insect repellents](#) [↗](#) .
- After you come indoors
 - Check your clothing for ticks.
 - Shower and perform a thorough tick check.

- If you see an attached tick, [remove it immediately](#).
- Take steps to prevent ticks [on your pets](#) and [in your yard](#).

Page last reviewed: October 18, 2021