

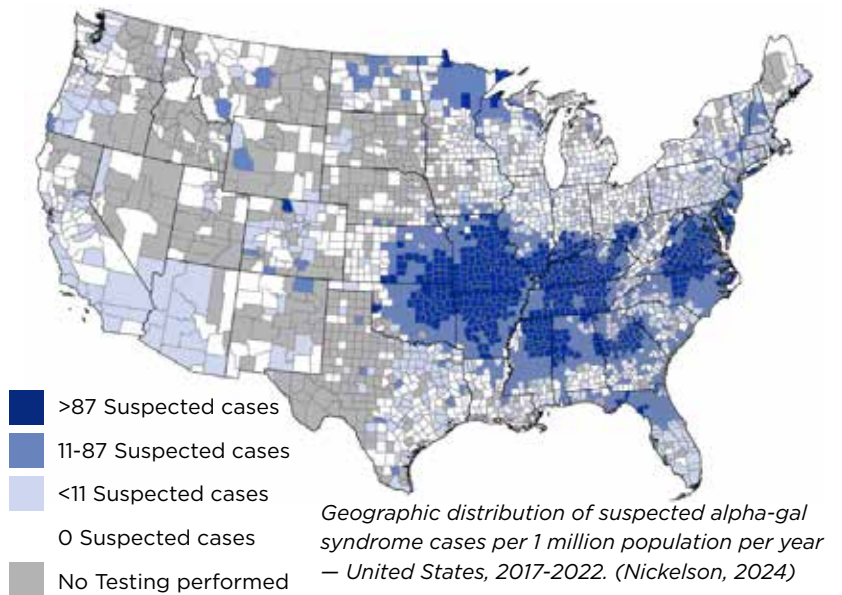
# Alpha-Gal Awareness

## Introduction

Alpha-gal syndrome (AGS) is a food allergy to mammal meat and other products made from mammals. It is caused by a tick bite and is sometimes called a red-meat allergy.

Symptoms are different for different people. They can be bad, even life-threatening. There is no cure, so finding out early or preventing alpha-gal is important.

Learning about alpha-gal and ways to prevent tick bites can lower the risk of serious symptoms. This guide covers tick-caused red meat allergies in Missouri, symptoms and testing for alpha-gal asyndrome, and prevention tips. For more help with meal planning, cooking, and shopping to avoid alpha-gal, check out MU Extension publications *Cooking with Alpha-Gal* (N1351) and *Shopping for Alpha-Gal* (N1352).



## Description

Red meat from mammals like beef, pork, rabbit, venison, and sheep has a carbohydrate called alpha-galactose (alpha-gal). Alpha-gal is also found in the saliva of the lone star tick. When this tick bites a person, it can transfer alpha-gal, causing an allergic reaction.

The lone star tick is common in the south and central U.S., including Missouri. Missouri may have one of the highest rates of AGS.

## Screening Tools

There are four steps to an AGS diagnosis. Your healthcare provider will typically:

1. Look at your medical history
2. Do a physical exam
3. Draw an IgE allergy blood test
4. Watch for reactions to mammal meat foods and products

Many people with AGS report both waking up at night with stomach problems and a history of tick bites or outdoor hobbies.

The symptoms of AGS can change over time. People who avoid tick bites may see their reactions to red meat decrease. Yet, new tick bites can make the allergy worse and lead to stronger reactions.



## Symptoms

Two to six hours after eating red meat or its byproducts, a person with AGS might have an allergic reaction. Common symptoms include hives and stomach problems, but heart symptoms can also occur.

*How symptoms happen*



## Symptoms of alpha gal syndrome reaction

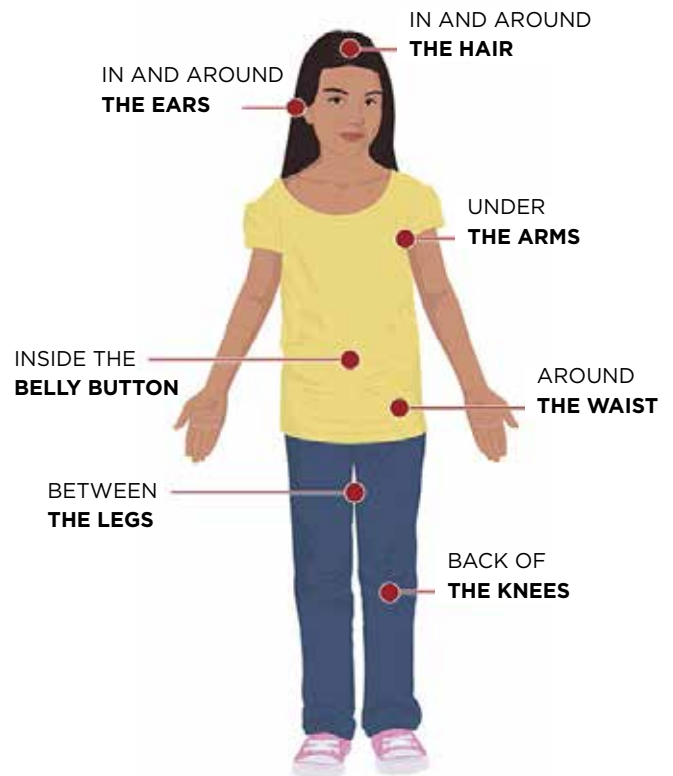
- Hives or itchy rash
- Nausea or vomiting
- Heartburn or indigestion
- Diarrhea
- Drop in blood pressure
- Cough, shortness of breath, or difficulty breathing
- Swelling of the lips, throat, tongue, or eye lids
- Dizziness or faintness
- Severe stomach pain

## Prevention

Stopping tick bites is key to getting AGS under control. People with AGS should avoid being bitten again. Repeated bites can make the allergy worse.

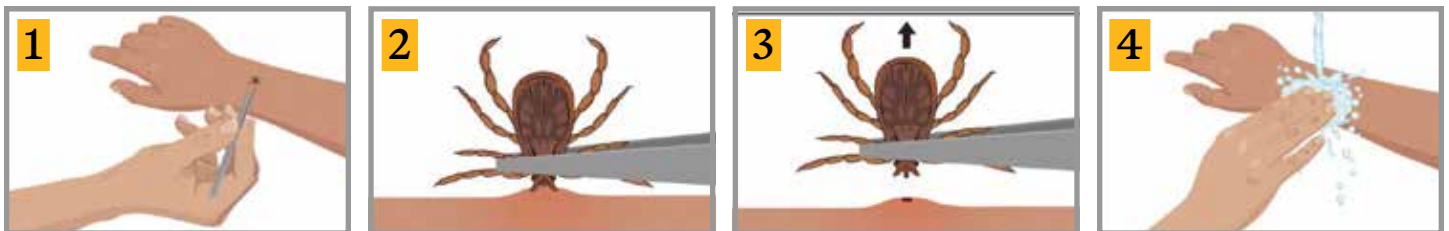
Ticks can bite at any time of year, but most bites happen from April to September. To avoid ticks:

- Stay away from grassy, brushy, and wooded areas whenever possible.
- Walk in the center of trails while hiking.
- Wear light-colored clothing so you can spot ticks more easily.
- Tuck your pant legs into your socks or tape them.
- Use EPA-approved insect repellents on exposed skin, such as those with DEET or picaridin.
- Treat clothing and gear with products having 0.5% permethrin or buy pre-treated items.



### After being outside:

- Check your clothes, gear, and pets for ticks.
- Take a shower and change clothes as soon as you can.
- Remove any attached ticks right away.
- Dry your clothes on high heat for 10 minutes to kill any ticks that might still be on them.



## More resources and agencies

Center for Disease Control and Prevention

Missouri Department of Conservation

Missouri Department of Health and Senior Services

## Sources

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- Missouri Department of Health and Senior Services (2023). Missouri tickborne disease story map. Retrieved from <https://storymaps.arcgis.com/stories/d46ce3a154bf4d97bc9ba3933cd2a325>
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