

## Checking for Ticks

Reduce your chances of getting tick-borne diseases or reactions by checking your body for ticks after being outdoors. Use a hand-held or full-length mirror to view all parts of your body.

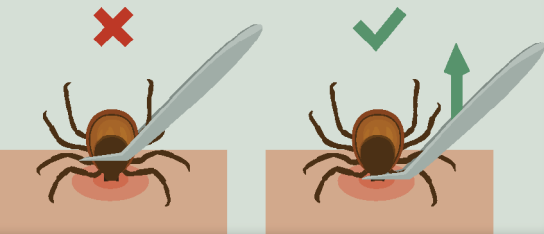
Be sure to check these parts of your body:

- |                       |                      |
|-----------------------|----------------------|
| ■ Under the arms      | ■ In/around the hair |
| ■ In/around the ears  | ■ Between the legs   |
| ■ Inside belly button | ■ Around the waist   |
| ■ Back of the knees   | ■ On the scalp       |

## What to Do if You Find a Tick

1. Using fine-tipped tweezers, grab the tick close to the skin. Do not twist or jerk the tick, as this may cause the mouthparts to break off and remain in the skin.
2. With a steady motion, gently pull straight up until all parts of the tick are removed.
3. After removing the tick, clean your skin with soap and warm water.
4. If you think you may have Alpha-Gal Syndrome (AGS) or have an allergic reaction consistent with AGS, contact your health care provider.
5. Ticks also transmit diseases including Lyme disease. If you develop any tickborne related symptoms, contact your health care provider.

**Do not use petroleum jelly, hot matches, nail polish remover, or other products to remove a tick.**



## Where Can I Find More Information?

**New Jersey Department of Health  
Communicable Disease Service:  
Fight the Bite, NJ!**

[nj.gov/health/cd/topics/vectorborne.shtml](http://nj.gov/health/cd/topics/vectorborne.shtml)

**New Jersey Department of Health  
Alpha-gal Syndrome**

[nj.gov/health/cd/topics/alphagal.shtml](http://nj.gov/health/cd/topics/alphagal.shtml)

**Centers for Disease Control and  
Prevention: Alpha-gal Syndrome**

[cdc.gov/ticks/alpha-gal/index.html](http://cdc.gov/ticks/alpha-gal/index.html)

**Centers for Disease Control and  
Prevention: Avoiding Ticks**

[cdc.gov/ticks/avoid/index.html](http://cdc.gov/ticks/avoid/index.html)



Acknowledgements: [cdc.gov](http://cdc.gov)



# Alpha-Gal SYNDROME

**Also called alpha-gal allergy,  
red meat allergy,  
or tick bite meat allergy**



## What is Alpha-Gal?

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

## 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 meat or are exposed to other products containing alpha-gal.

## Can I Get AGS from a Tick Bite?

Growing evidence suggests that AGS is associated with the bite of a lone star tick (*Amblyomma americanum*) in the United States, but other kinds of ticks have not been ruled out. The greatest risk of being bitten is in early spring through fall. The nymph and adult females most frequently bite humans.

More research is needed to understand the role ticks play in starting this reaction, and why certain people develop AGS.



Female Lone star tick

Male Lone star tick

Nymph Lone star tick

The New Jersey Department of Health began monitoring AGS in 2022. Learn more: [nj.gov/health/cd/topics/alphagal.shtml](https://nj.gov/health/cd/topics/alphagal.shtml).

## What are the Symptoms of AGS?

AGS reactions vary from person-to-person and can be mild to severe or even life-threatening.

AGS reactions can include:

- Rash
- Hives
- Nausea/vomiting
- Heartburn/indigestion
- Diarrhea
- Anaphylaxis
- Drop in blood pressure
- Cough/shortness of breath/difficulty breathing
- Swelling of the lips, throat, tongue, or eyelids
- Dizziness/faintness
- Severe stomach pain

Symptoms usually appear two to six hours after eating meat/dairy products, or after exposure to products containing alpha-gal. Anaphylaxis (a potentially life-threatening reaction involving multiple organ systems) may need urgent medical care. An allergic reaction may not occur after every alpha-gal exposure.

## What Foods/Products Should I Avoid if I Have AGS?

Not all people with AGS have reactions to every ingredient containing alpha-gal. Typically, people with AGS should stop eating meat (pork, beef, rabbit, lamb, venison, etc.) and may be advised to avoid other products that contain alpha-gal (including gelatin and milk products). If you have AGS, talk to your health care provider to learn what foods and products should be avoided.



## Who Gets AGS?

While people in all age groups can develop AGS, most cases have been reported in adults.

## How is AGS Diagnosed?

AGS is diagnosed by an allergist or other health care 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. Allergy skin testing may also be recommended.

If you think you may have AGS, talk to your health care provider about testing recommendations.

## What is the Treatment for AGS?

There is currently no treatment for AGS. AGS is treated by avoiding foods/products that cause a reaction. Immediate symptoms such as hives or shortness of breath are treated in an urgent care setting with antihistamines, epinephrine and other medications. New tick bites may reactivate allergic reactions to alpha-gal.

## How to Prevent Tick Bites and Tickborne Diseases

- **Know where ticks are:** ticks live in or near wooded or grassy areas. Always walk in the center of trails to avoid contact with ticks.
- **Keep your yard clean:** mow lawns, clear brush and remove leaf litter.
- **Apply insecticides:** use EPA-registered insect repellent on skin and permethrin on clothing, boots and camping gear.
- **Cover up:** wear long sleeves and pants tucked into socks to prevent ticks from getting under clothes.
- **Shower:** showering can help find and wash off unattached ticks.
- **Inspect:** check your body for ticks after outdoor activities.
- **Monitor:** if bitten by a tick, be aware of possible tickborne disease symptoms.