



Choctaw Nation

Public Health

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HUNTERS: BE AWARE OF AGS

(ALPHA-GAL SYNDROME)

WHEN A TICK BITE LEADS TO
RED MEAT ALLERGY

WHAT IS ALPHA-GAL SYNDROME?

Alpha-Gal Syndrome (AGS), sometimes called “red meat allergy” or “tick bite meat allergy,” is a serious condition that can develop after being bitten by certain ticks, most commonly the lone star tick in the United States.

People with AGS may experience allergic reactions after eating red meat or consuming other products that contain alpha-gal, a type of sugar found in mammals.

Hunters are at higher risk because they spend more time outdoors in areas where ticks live, such as tall grass, brush, and wooded terrain.

SYMPTOMS OF AGS

Signs of AGS can vary from mild to life-threatening and may appear weeks or months after a tick bite. Reactions often occur 2–6 hours after eating red meat, dairy, or other mammal-derived products.

Possible symptoms include:

- Itchy rash or hives
- Swelling of lips, tongue, throat, or eyelids
- Nausea, vomiting, or diarrhea
- Indigestion or heartburn
- Cough, shortness of breath, or difficulty breathing
- Dizziness, fainting, or low blood pressure
- Severe reaction (anaphylaxis)

FOODS AND PRODUCTS THAT MAY TRIGGER AGS

Products that can cause reactions include:

- Beef, pork, lamb, venison, and rabbit
- Dairy products (milk, cheese, ice cream, etc.)
- Gelatin from beef or pork
- Meat broth
- Fats from mammals (lard, tallow, suet)

Safe to eat: Poultry (chicken, turkey, duck, quail), fish, shellfish, and eggs do not contain alpha-gal.

HOW AGS IS DIAGNOSED

Healthcare providers may use:

- Patient history and reported symptoms
- Physical examination
- Blood tests for alpha-gal antibodies
- Allergy skin testing



HOW TO PREVENT AGS

The best defense is preventing tick bites in the first place. Ticks can be active in the **fall and even on warmer winter days**, not just summer.

Before hunting:

- Treat clothing and gear with 0.5% permethrin (follow directions).
- Apply EPA-approved insect repellent.
- Protect your pets with tick prevention products.

After hunting:

- Check your clothing, gear, and pets for ticks.
- Shower and check your body thoroughly.
- Remove ticks as soon as you find them.

AGS FACTS

- More than **110,000 suspected cases** were reported between 2010–2022.
- From 2017 to 2021, cases grew by about 15,000 each year.
- Not everyone bitten by a lone star tick will develop AGS.

WHERE LONE STAR TICKS ARE FOUND

Lone Star Ticks are one of the most common ticks in Choctaw Nation and the rate of Alpha-Gal Syndrome is higher in CNO compared to State and Federal Rates.

They are also widespread in the South and East, including states such as: Alabama, Arkansas, Florida, Georgia, Illinois, Kentucky, Louisiana, Maryland, Missouri, North Carolina, Oklahoma, Tennessee, Texas, Virginia, West Virginia, and many others across the eastern U.S.

REMEMBER

If you develop allergic symptoms after eating red meat or dairy and have had a recent tick bite, see a healthcare provider. Mention your outdoor exposure and possible tick contact.

Hunters: Protect yourselves, prevent tick bites, and know the signs of AGS.