



## Alpha-Gal Syndrome Handout

Alpha-gal syndrome (AGS) is an **allergy to red meat and other products from mammals**. It happens after some people are bitten by certain types of ticks, which can cause the body to make antibodies against a sugar called alpha-gal found in mammal meat and products.

### Prevalence:

AGS is an emerging condition in the United States, especially in the southern, midwestern, and mid-Atlantic regions. Between 96,000 and 450,000 people in the US may have developed AGS since 2010, making it one of the more common food allergies. Seroprevalence in the southeastern US ranges from 20% to 31%, and the number of cases is increasing. AGS is most often linked to bites from the lone star tick.

### Symptoms:

Symptoms usually start 2 to 8 hours after eating red meat (like beef, pork, or lamb) or other mammal products. They can include hives, itching, stomach pain, nausea, diarrhea, and sometimes severe allergic reactions (anaphylaxis). Some people only have stomach symptoms, while others may have skin reactions or trouble breathing. Symptoms and severity can vary widely from person to person.

### Treatment:

The main treatment is **avoiding foods and products that contain alpha-gal**. This means not eating red meat, organs, and sometimes dairy or foods with gelatin (like some candies and desserts). Most people can still eat chicken, turkey, fish, and plant-based foods.

- **Dairy:** Most patients can tolerate small to moderate amounts of dairy (skim or low-fat milk, hard cheeses), but about 20% may need to avoid all dairy, especially whole milk, ice cream, heavy cream, and soft cheeses.
- **Gelatin and processed foods:** Gelatin-containing foods (marshmallows, gummy candies, some yogurts and puddings) and processed foods may contain hidden alpha-gal.
- **Medications:** Some medicines and supplements (like certain thyroid pills, gelatin capsules, and intravenous drugs) may contain alpha-gal. Always check with your doctor or pharmacist before taking new medications.

- **Accidental exposure:** If you accidentally eat something with alpha-gal, mild symptoms can be treated with antihistamines. For severe reactions, use an epinephrine injector (EpiPen) and seek emergency care.
- **Other treatments:** For mild, chronic symptoms (like stomach upset or hives), antihistamines and mast cell stabilizers may help.
- **Tick bite prevention:** Avoiding further tick bites is important, as new bites can make the allergy worse. Wear long sleeves and pants outdoors, use tick repellents, and check your skin for ticks after being outside.

### **Prognosis:**

Most people with AGS get better by avoiding foods with alpha-gal. About 80% of people see their symptoms improve when they follow a strict avoidance diet. In some cases, the allergy may go away over time, especially if you avoid further tick bites. Doctors may check your blood for alpha-gal antibodies every 6 to 18 months to see if the allergy is improving. If your antibody levels drop low enough, your doctor may recommend a supervised food challenge to see if you can safely eat red meat again. There is currently **no cure for AGS**, but research is ongoing. With careful management, most people can control their symptoms and live healthy lives.

If you have questions or new symptoms, talk to your healthcare provider.

## **References**

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