

'Alpha-Gal' Syndrome

Another Tick Malady

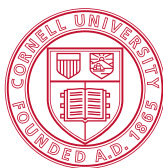


Tick bites blamed for causing an allergic reaction to meat consumption.

- Certain individuals may develop a sensitivity to the consumption of mammalian meats, including beef, pork, lamb or mutton, and occasionally cow's milk/dairy products following exposure to multiple tick bites by the lone star tick (*Amblyomma americanum*).
- Multiple tick bites are most likely to occur all at once when larval ticks, so tiny they look like moving dust particles, are encountered as a newly hatched mass. This mass attack leaves tiny red lumps that itch for two or more weeks, often on the lower half of the body. Many call these 'chigger' bites. They are actually larval tick bites.
- Long attachments, or repeated attachments by lone star ticks can increase the chances for a meat allergy to occur.
- The common allergen in tick saliva and in meat is actually a carbohydrate stuck to the protein, called alpha galactose, hence 'alpha-gal'. Chicken, turkey, and fish do not have alpha galactose and can usually be consumed without any reaction. Venison does contain alpha-gal and may cause a reaction.
- When meat (or less often dairy) is consumed by sensitized individuals, 3-6 hrs following consumption a variety of symptoms may occur including: itching, wheezing, hives, swelling, abdominal cramps, reddening of the skin. A full-fledged bout of anaphylactic shock is possible. There is no predictability IF the reaction will occur each time meat (or less often dairy) is consumed or to what degree of severity.
- Researchers believe that the potential for development of alpha-gal allergy may be higher in those whose tick bites are especially itchy.
- A traditional skin prick allergy test for allergy to meat may give a false negative answer. There is an IGE alpha-gal test which can confirm a diagnosis of allergy to alpha-gal.
- In time, with no further tick bites, it may be possible to overcome the allergy and eat meat again.



Larval lone star ticks on ankle.



Cornell University
Cooperative Extension
of Suffolk County

Extension Education Center
423 Griffing Avenue, Suite 100
Riverhead, NY 11901-3071
631-727-7850 • www.ccesuffolk.org

Cornell Cooperative Extension in Suffolk County provides equal program and employment opportunities.
Cornell Cooperative Extension is funded in part by Suffolk County through the office of the County Executive and the County Legislature.