

With school out and nice weather increasing outdoor activities are also increasing but, unfortunately, the potential to come into contact with many species of biting ticks increases too. Many people take precautions to prevent bites to them and their animals, but of particular concern is a species of tick that Kansas harbors: the Lone Star tick.

Kansas State University food scientist Karen Blakeslee says a bite from the Lone Star tick can cause a rare allergy – called an Alpha-gal allergy – when infected humans consume red meat and other food products.

The Lone Star tick is distinguished by the white dot in the center of its body. Though more common in the South, the Lone Star tick once was found only in eastern Kansas, but recently also has been found in western Kansas. Ticks are active through the months of April through September.

“The Alpha-gal molecule is carried in the saliva of the Lone Star tick,” Blakeslee said. “People bit by this tick can become sensitive and produce the immunoglobulin E (IgE) antibody. Unlike typical food allergies, which is a reaction to protein, this is a reaction to a specific grouping of two carbohydrates, galactose- α -1.3-galactose, a disaccharide found in most mammals.”

Blakeslee listed the types of foods that may trigger an allergic reaction:

- **Any red meat** such as pork, beef, rabbit, lamb or venison.
- **Other mammal products** such as gelatin, cow’s milk and milk products.
- **Some medications** that use mammal-derived gelatins, glycerin, magnesium stearate or bovine extract.

Blakeslee said fish, seafood, eggs, fruits, vegetables, or poultry are not known to cause a reaction.

Allergy symptoms may appear up to 3-8 hours after consuming a reactive food. Blakeslee said the symptoms include rash, hives, difficulty breathing, drop in blood pressure, dizziness, fainting, nausea and severe stomach pain. These symptoms can be life-threatening; seek medical care immediately.

Although rare, Blakeslee said the Alpha-gal allergy can develop in people of any age and is usually permanent.

“The allergy is managed with antihistamines, corticosteroids, or other medications,” Blakeslee said. “Every person reacts differently, and it may be possible to slowly reintroduce red meat foods after a long period of time.”

To avoid being bitten by the Lone Star tick, observe precautions similar for any tick species. When possible, stay on paths and avoid tall grass, weeds and brush. When outdoors use an insect repellent with at least 30% DEET but still be watchful and remove any ticks crawling on

you. When you get home remove your clothes, take a shower and thoroughly inspect yourself for any ticks.