ALPHA GAL SYNDROME

- Alpha-gal syndrome (AGS) is a serious, potentially life-threatening allergy to alpha-gal that can develop after a tick bite.
- Tick saliva contains a sugar molecule called alpha gal (galactose-a-1,3-galactose). This is found in most mammals, but not humans, primates, birds, fish, or reptiles.
- Immune system recognizes alpha gal as foreign substance and begins making IgE antibodies. (usually takes 3-4 weeks)
- Once the body has sensitized and has IgE antibodies to alpha gal, allergic reactions can be triggered, usually between 3-6 hours after exposure
- Diagnosis often takes many years

www.cdc.gov/alpha-gal-syndrome/about/index.html

ALPHA GAL SYNDROME

- Discovered in mid-2000s when patients in the Southeast taking a cancer drug had severe & immediate allergic reactions
- Between 2007-2009 correlation was made that Lone Star tick was the primary culprit
- Between 2010 & 2018, over 34,000 cases were diagnosed
- Approximately 450,000 people have been diagnosed nationwide
- Alpha Gal is NOT a notifiable condition. Local health jurisdictions are responsible for

www.cdc.gov/alpha-gal-syndrome/about/index.html

www.scienceinsights.org/when-was-alpha-gal-syndrome-discovered/



Female

Lone Star Tick



Male

Lone Star Tick

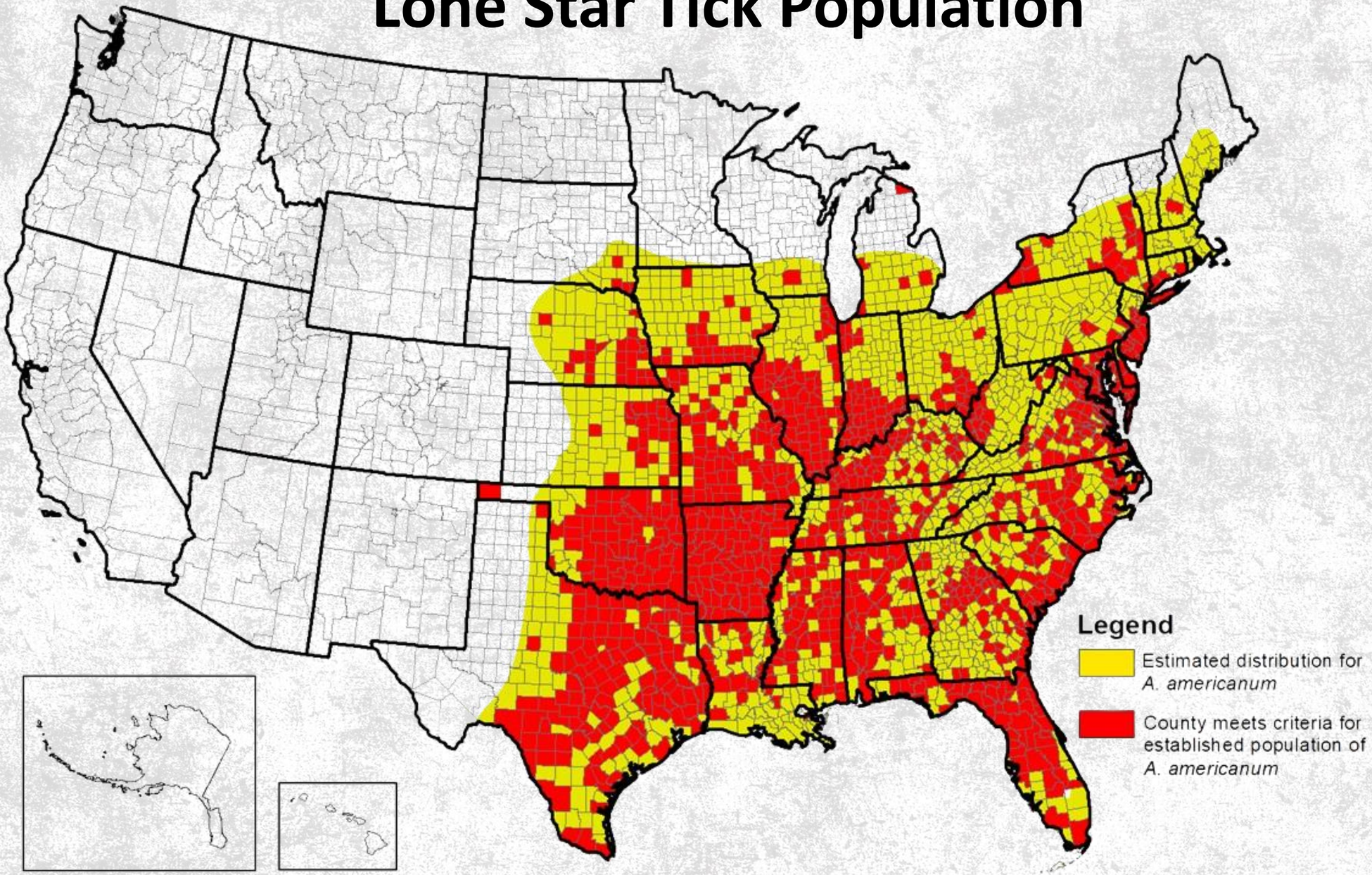


Western
Blacklegged Tick



Blacklegged
Tick

Lone Star Tick Population



https://www.cdc.gov/ticks/media/images/2025/07/lone-star-tick-surveillance-map.jpg?_=84779

COMMON SYMPTOMS

Gastrointestinal Distress

- Bloating
- Nausea
- Vomiting
- Stomach pain
- Diarrhea

Skin Reactions

- Rash
- Hives - widespread
- Swelling of lips, eyes, tongues
- Itching
- Facial flushing

Respiratory Issues

- Persistent Cough
- Shortness of Breath/Wheezing
- Chest Tightness
- Scratchy/Tight Throat
- Hoarseness
- Anaphylaxis

Cardiovascular/Neurological

- Dizziness
- Brain Fog
- Lightheadedness
- Weak & Rapid Pulse
- Feeling of Anxiety
- Confusion

Concerns

Cross Contamination of Foods
(using same utensils, pans, grills for safe and unsafe foods)

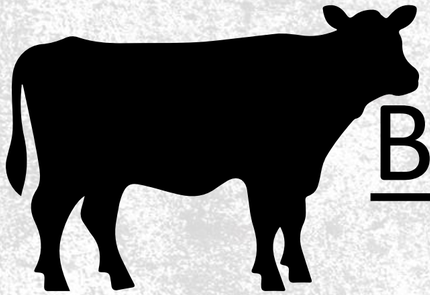
Fume Reactive - breathing milk fumes or red meat being cooked

Manufacturing Facilities using the same lines/conveyor belts processing mammal products and safe products

Sponges or **Drying Towels** with grease residue

Cutting Boards

By-Products



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Hooves & Horns

- Adhesives
- Plastics
- Pet Food
- Plant Food
- Photo Film
- Shampoo & Conditioner
- Emery Boards
- Lamination
- Wallpaper
- Plywood

Internal Organs

- Instrument Strings
- Tennis Racquet Strings
- Hormones, Enzymes, Vitamins, & Other Medical Materials

Brain

- Anti-Aging Cream
- Medicines

Hair

- Air Filters
- Brushes
- Felt
- Insulation
- Plaster
- Textiles

Skin

- Gelatin
- Flavorings
- Emery Boards
- Sheet Rock
- Wallpaper
- Adhesives
- Medicines
- Candies & Confectionary

Milk

- Adhesives
- Plastics
- Cosmetics
- Medicines

Blood

- Pasta
- Cake Mixes
- Dyes & Inks
- Adhesives
- Minerals
- Medicines
- Lab Research Materials

Manure

- Fertilizer
- Nitrogen
- Phosphorus

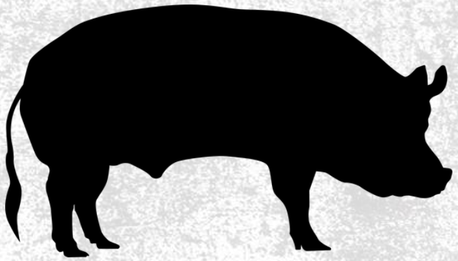
Bones

- Refined Sugar
- Charcoal
- Fertilizer
- Glass

Fat

- Cosmetics
- Creams
- Lotions
- Oil
- Lubricants
- Biodiesel
- Antifreeze
- Insulation
- Linoleum
- Pet Food
- Cement
- Ceramics
- Explosives
- Medicines
- Plastics
- Chewing Gum
- Paint
- Candles
- Detergents
- Crayons
- Deodorant
- Chalk
- Perfume
- Waterproofing Agents
- Fireworks
- Matches
- Fertilizer
- Rubber
- Textiles
- Shaving Cream
- Fabric Softener

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By-Products

Bones

- Glue
- Buttons
- Bone China
- Bone Meal
- Minerals for Feed
- Fertilizer
- Porcelain Enamel
- Glass
- Water Filters

Internal Organs

- Insulin
- Variety of Medicines
- Surgical Sutures
- Heart Valves

Hair

- Art Brushes
- Insulation
- Upholstery

Skin

- Gelatin
- Footballs
- Porcine Burn Dressings
- Luggage & Purses
- Gloves & Shoes
- Pigskin Garments

Blood

- Medicines
- Sticking Agent
- Leather Treating Agent
- Plywood Adhesive
- Protein Source in Feeds
- Fabric Painting
- Fabric Dyeing

Brain

- Cholesterol
- Other Medicines

Meat Scraps

- Commercial Feeds
- Pet Food

Fatty Acids & Glycerin

- Waterproofing Agents
- Fiber Softeners
- Crayons
- Chalk
- Phonograph Records
- Matches
- Putty
- Insulation
- Linoleum
- Cellophane
- Cement
- Insecticides
- Weed Killers
- Lubricants
- Oil Polishes
- Rubber
- Cosmetics
- Antifreeze
- Nitroglycerine
- Plastics
- Plasticizers
- Printing Rollers
- Floor Waxes

MAMMALS

1. Cow
2. Pig
3. Sheep
4. Goats
5. Rabbit
6. Squirrel
7. Buffalo
8. Deer
9. Elk

NON-MAMMAL MEATS

1. Chicken
2. Turkey
3. Emu
4. Ostrich
5. Seafood

GOLDEN RULE

Fins and Feathers

HIDDEN MAMMALIAN WORDING









Carrageenan - from red seaweed, used as a thickening agent
Magnesium Stearate - may be derived from mammal fats
Stearic Acid - often mammal derived
Glycerin - can be mammal sourced
Lactose - milk sugar found in some medications
Natural Flavors
Gelatin



MANAGEMENT

Currently not a cure for Alpha Gal

Everyone reacts differently

Carry an Epi Pen

Some people’s symptoms relax over time

Acupuncture of the ear has reportedly helped some

Total avoidance of mammal products for 1-2 years has allowed a few to reintroduce some mammal products.

Additional tick bites can increase the severity of Alpha Gal

To do list

- [ ] Educate health care providers
- [ ] Labeling on food products to indicate mammalian contents
- [ ] Restaurants workers trained in cross contamination issues
- [ ] Public awareness of the tick threat and potential results
- [ ] Eradication of the tick population

