

ALPHA GAL SYNDROME: MAMMAL MEAT ALLERGY



The mammal meat allergy, known as Alpha Gal Syndrome, is an emerging allergy in South Africa which is caused by a tick bite. Just one bite can cause a person to develop an allergy to mammal meat, which includes beef, lamb, venison, sheep, goat and pork. Other foods, medication, home and beauty products may also contain animal products and cause a reaction.

WHAT CAUSES ALPHA GAL?

- Alpha Gal is short for galactose-a-1,3-galactose, a carbohydrate found in all mammals except humans and old world monkeys.
- While researchers are still unsure of the exact process of how the tick bite causes the body to develop this immune response, some of the theories are that the tick injects the blood of its previous meal (which contains Alpha Gal) into the bloodstream causing the immune system to see Alpha Gal as a future threat.
- Another possibility is that something in the tick or a bacteria that the tick might be carrying is the source of alpha-gal being injected into humans causing the allergy.

SYMPTOMS

- Alpha Gal reactions occur 2 to 6 hours after eating red meat. This is very different from the immediate onset of other food allergies such as reactions to peanuts.
- Symptoms include hives, burning or itchy skin, swelling of various body parts, abdominal pain, diarrhea, nausea, vomiting, wheezing and anaphylaxis, a severe, potentially life-threatening allergic reaction.
- Like many other food allergies, Alpha Gal reactions may be unpredictable in nature, varying in severity with exposures from mild to severe.

EMERGENCY TREATMENT

Severe reactions involve the throat, lungs, heart or whole body (see anaphylaxis brochure). Symptoms to take note of include sudden onset of cough, change in the voice or difficulty breathing (see anaphylaxis action plan). Severe reactions must be treated with an injection of adrenaline into a muscle. This is done using an EpiPen autoinjector. People with severe Alpha Gal allergy should carry an autoinjector with them at all times.

Mild reactions can be treated with an antihistamine alone. If you are not sure whether a reaction is mild, or severe, it is always better to use the autoinjector like you would for a severe reaction.

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HOW IS THE DIAGNOSIS MADE?

- Alpha Gal can be identified by the delayed symptoms that occur after ingestion or use of mammal products.
- Alpha Gal is confirmed with a simple and affordable blood test.

MANAGEMENT

- Upon being diagnosed with Alpha Gal, one should avoid mammal meat, medication, home and beauty products that contain mammal by-products.
- Mammalian meat is not one of the allergens that require mandatory labelling.

TERMS THAT IMPLY THAT THE PRODUCT CONTAINS MAMMALIAN MEAT

Terms such as gelatin, aspic, albumen, added fat or tallow, lard, natural flavourings, rennet, collagen, stearic acid, magnesium stearate, and sausage casing may imply the presence of mammalian meat allergens that can cause alpha gal syndrome.

WHAT CAN YOU EAT?

- There are safe alternatives such as chicken, ostrich and fish that do not contain Alpha Gal.
- Be sure to purchase these products in their pure form and not as ready-made products. For example, some brands of ready-made ostrich hamburger patties add extra mammal fat to the product. There are many safe vegan home and beauty products on the market that can be used.

PREVENTION

- Avoid being bitten by ticks.
- Wear long protective clothing when going to places that are known to have ticks, using duct tape to tape your long pants to your socks then spray your shoes and clothing with a permethrin-based product.
- Do a full body check for ticks when getting undressed, removing any ticks at the base of the skin, without squeezing it.
- Pets bring ticks into the home so be sure to use tick and flea products on them regularly.

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WILL IT GO AWAY?

- It is believed that by avoiding further tick bites, in some patients, it might potentially go away in a few years
- Patients who have previously had alpha gal syndrome and in whom it has resolved can have a return of symptoms after additional tick bites.

ADDITIONAL SUPPORT

- Schedule an appointment with your primary care physician or an allergist to discuss alpha-gal syndrome and receive professional guidance. allergyfoundation.co.za/what-we-offer/find-a-medical-professional/find-a-professional/
- Explore the dedicated website (alphagalinformation.org) for information and resources on Alpha-Gal Syndrome.