

# ALPHA GAL & MAST CELL ACTIVATION

Connect the dots between Alpha Gal Syndrome and Mast Cell Activation with this visual summary of what happens in the body after exposure to Alpha Gal.



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## SENSITIZATION

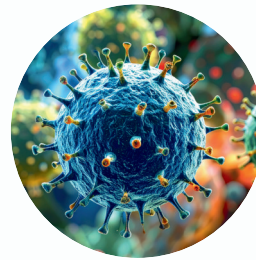
Alpha-gal molecules present in tick saliva and mammalian tissues, enter the body. The immune system treats alpha-gal as foreign. IgE antibodies for alpha-gal are produced. Mast cells are sensitized but not yet activated.



2

## RE-EXPOSURE

When a sensitized person is exposed to alpha-gal again through another tick bite, or more commonly, foods such as mammalian meat, gelatins and other alpha-gal containing substances; alpha-gal molecules are absorbed in the digestive tract and the lymphatic system.



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## MAST CELL ACTIVATION

Alpha-gal molecules bind to two or more IgE antibodies on the mast cell surface, triggering degranulation and mediator synthesis. In other words, mast cells release the body's defenses in the form of histamines, tryptase, heparin, and proteases.



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## NEGATIVE SYMPTOMS

Flooded with the degranulated mast cell defenses the body can experience a wide range of symptoms including: GI cramping, nausea, diarrhea, flushing, hives, bronchoconstriction, fatigue, and other negative impacts.

