

CLINICAL SPECIFICATIONS

MEAT GLUE

Antigen Made From:

Meat Glue (Ingredients: Sodium Caseinate, Maltodextrin, Transglutaminase) was added to ground beef and heated in a pan without oil

Associated With:

Meat Glue immune reactivity

Known Cross-Reactions: Gliadin¹

Clinical Significance:

Meat glue, also known as transglutaminase or thrombian, is a powder used in the food manufacturing industry to adhere smaller pieces of meat to make one large fillet, or to turn flakes of white fish into imitation crab meat, or form chicken scraps into nuggets. It is also used to thicken some milks, yogurts and egg whites. According to the packaging label on meat glue, there is also maltodextrin and sodium caseinate with transglutaminase. The enzymes used for meat glue are primarily produced through the fermentation of bacteria.² It may also be used in some medications to make them more water soluble, non-aggregating, non-immunogenic and more stable against digestion.³ Studies on food immune reactivities predominantly use raw food antigens. However, some researchers have noted that heating, or combining, food proteins can change their antigenicity.⁴⁻⁶

This array tests for IgG and IgA food immune reactivity.^{7,8} Equivocal or out-of-range results indicate antibody reactivity to the tested food antigen. We tested 288 blood donor sera against meat glue antigens at optimal dilution, 28.1% of these donors were IgG and IgA reactive.

Due to cross-reactivity, possible connections between food antigens and human autoimmunity has been previously suggested because proteins in nature can have a similarity in sequence and structure to certain human tissues.⁹⁻¹²

Data suggests that eliminating foods identified using IgG antibody food testing can play a role in improvement of symptoms.¹³ Because certain food components can lead to gut flora changes and gut permeability, eliminating specified food antigens should result in the reduction of antigenic stimuli and the improvement of symptoms.^{13,14}

The results of this food array may be used to develop and implement an immune targeted dietary plan, which includes the avoidance of triggering and known cross-reactive foods. Furthermore, when followed over time, avoidance/prevention treatment plans tailored and supervised by the ordering healthcare professional, may help: (a) repair the gut barrier; and (b) re-establish oral tolerance to the offending food.^{13,14}

References:

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