

NUTRITIONAL SUPPORT FOR ALLERGIES

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Background

Allergy is a response by the immune system which results in inflammation. The allergic response is dependent on the body's ability to correctly identify foreign substances including foods, chemicals, and environment. Overactive immune response involves high IgE antibody levels and release of histamine which lead to noticeable symptoms like hay fever, eczema and asthma. IgG allergies are different, causing more delayed reactions like fatigue, brain fog, and digestive disturbances. The origins of allergy are unclear, but new research points to a "leaky gut" featuring *intestinal permeability* where undigested food particles and toxins pass through the gut lining. These uninvited guests tax the liver and may create an inflammatory state anywhere in the body.

Identifying Allergies

While skin prick tests have traditionally been useful in diagnosing airborne IgE allergies, blood tests can now help identify IgE food triggers. People may already be aware of many intolerances or allergies when the symptoms are immediate. IgE allergies can also be worse with processed foods, as antibody levels are 3-8 times higher than raw food counterparts. (5)

In delayed IgG allergies, food elimination-challenge testing is most reliable. For fastest results, consume foods during a two-week elimination testing that are highly unlikely to cause allergy – fruits except citrus, vegetables except corn and tomatoes, brown or white rice, turkey, whitefish, hazelnuts, walnuts and sunflower seeds, and water and herbal teas. (1) During the testing period, any symptoms or lack of symptoms should be noted in a detailed food-symptom log. Cravings are often linked to food allergies. Only one new food should be added per day after the elimination phase. If a suspected food causes symptoms, it should be eliminated for 3-6 weeks before trying it again. Some, but not all foods, may be tolerated after avoidance. 4-day food rotation is recommended – particularly with items that are not well tolerated – to help the body cleanse, heal and avoid further reactions.

Reducing histamine to alleviate acute inflammatory symptoms

Although over-the-counter antihistamine drugs seem like a quick fix for immediate allergies, they indiscriminately block all of the body's histamines and affect the brain with typically undesirable side effects. Daily nasal rinsing with hypertonic saline is an effective treatment after exposure to airborne allergens. In addition, some nutrients and herbs help break down histamine naturally and may alleviate allergy symptoms. But before supplementing, it is best to perform nutritional blood tests to determine deficiency or excess. In cases of leaky gut syndrome, carrier proteins in the intestine can be damaged and may not transport the necessary vitamins and minerals. Selecting gentler forms of naturally-derived supplements without chemical isolates or additives may help prevent intestinal disturbance and enhance absorption.

SUPPLEMENTS TO SUPPORT REDUCING HISTAMINE

Vitamin C (ascorbic acid) - 1 g three times throughout the day (3g total) with a glass of room temperature water after a meal. In cases of diarrhea and intestinal inflammation, a mineral ascorbate form of vitamin C is easier on the stomach. Meals with bioflavonoids (or a bioflavonoid complex of 500 mg) will help regulate the absorption of vitamin C. Quercetin is particularly effective, also reducing glucose transport in recent studies. (2,10)

Vitamin B6 (pyridoxine) - 50 mg two or three times throughout the day (100-150 mg total) with a glass of water after a meal.

Copper helps break down histamine; take 2 mg daily with a meal.

Stinging nettle is high in phenolics and can reduce histamine activity. 100 mg stinging nettle supplements 1-2 times per day. (7)
Spirulina also inhibits histamine; take 1 g daily for 12 weeks.

IMPORTANT CONCERNS

If taken through food, note that levels decrease with cooking or storage. Copper can be depleted by high doses of vitamin C. Oxalate levels can also rise with vitamin C supplementation over 100-200 mg, a problem for people prone to kidney stones. Too much vitamin C or bioflavonoids may cause diarrhea and upset stomach, and dosage must be reduced if this happens.

Toxicity may occur over 500 mg per day. Vitamin B2 (riboflavin) activates B6 in the liver and other B vitamins enhance B6.

Copper toxicity can be a problem so deficiencies should be diagnosed before supplementation. Do not take within two hours of any zinc supplement, as zinc interferes with copper absorption. Fructose also interferes with copper absorption. Therapeutic herbs should not be taken for extended periods.

Phenolics create blue, blue-red, and violet pigments in plants, and some phenolics appear to inhibit histamine and reduce inflammation in the body. Apple, cabbage, garlic, grapefruit, onion, orange, radish, raspberry, tarragon, thyme, chamomile, and yarrow are high in phenolic compounds. These foods may be added for support, keeping track of symptoms to evaluate effectiveness.

Isoliquiritigenin, a flavonoid in licorice, can also help inhibit histamine. Deglycyrrhizinated licorice is safest, and typical dosage is 380 mg three times daily before meals. High amounts of phenolics must be used with caution, as some people are sensitive to salicylates, a subgroup of phenols.

People can also be sensitive to histamine itself, and **histamine intolerance** can be mistaken for food allergies. A blood test is available to test the levels of Diamine Oxydase (DAO) which breaks down histamine. Certain foods increase histamine in the body such as aged cheese, fermented soy and vegetables, brewer's yeast, many fin fish and canned fish, shellfish, chicken, dry pork sausage, beef sausage, uncooked egg whites, strawberries, eggplant, tomatoes, spinach, chocolate, pineapple, vinegar and alcohol. Tomato skin extract is a natural antihistamine. (11) Stored, ripened or spoiled foods can contain high amounts of histamine and must be avoided in the case of histamine intolerance to promote healing.

Herbs used in Chinese medicine are being studied for their effects on reducing histamine and allergic symptoms. A recent study in Germany showed that acupuncture reduced itching caused by histamine. (8) A wide range of herbs and alternative treatments claim to reduce allergy symptoms, but further research is needed for confirmation.

Healing chronic inflammation

While IgE allergies can tax the immune system with noticeable inflammatory symptoms, IgG allergies can go virtually unnoticed and potentially lead to chronic conditions such as obesity and atherosclerosis. (4) Identifying IgG allergies through food elimination testing or IgG antibody blood tests can help define a supportive diet in reducing inflammation. Inflammation levels can also be tested, and if hs-CRP or other markers are high, following an anti-inflammatory diet with certain foods and spices can benefit symptoms. Refer to the Guide Sheet on "Nutritional Support for Inflammation."

IgE allergies affect the intestinal lining, so preventing or treating leaky gut may also help relieve allergies or related inflammation. Avoiding NSAIDs and other medication, alcohol, stress, and certain foods can help prevent leaky gut and allow for healing.

Vitamins and minerals work synergistically to balance the body and the interactions are complex and not well understood. An integrative approach, including professional nutritional support, can manage the complexity with tests, diagnoses, treatment, and follow-up.

Food for Reducing Histamine (3)

Foods high in vitamin C include:

raw red peppers 1.5 cup = 424 mg
raw guava 2 cups = 336 mg
cooked red peppers 1 cup = 233 mg
raw papaya 2 cups = 157 mg
raw pink/red grapefruit 2 cups = 123 mg
raw kale = 120 mg

Foods high in bioflavonoids include:

green tea 1 cup = 326 mg
black tea 1 cup = 278 mg
raw cherries 2 cups = 206 mg,
raw blueberries 2 cups = 205 mg
raw raspberries 2 cups = 126 mg
raw oranges 2 cups = 92 mg

Foods high in quercetin include:

raw yellow hot peppers 1.5 cups = 50 mg
cooked onions 1 cup = 40 mg
raw red onions 1.5 cups = 31 mg
raw cranberries 1.5 cups = 12 mg
raw apples with skin 1.5 cups = 8 mg
green tea brewed 1 cup = 6 mg
raw blueberries 1.5 cup = 5 mg

Foods high in copper include:

cooked mushrooms 1 cup = .78 mg
whole sesame seeds 100 cal = .71 mg
artichokes 1 cup = .39 mg
raw cashews 100 cal = .39 mg
raw blackberries 1.5 cups = .38 mg

Copper amine oxidase metabolizes histamine and can be found in mushrooms and pea seedlings. (6)

Probiotics reduced allergy symptoms in some test subjects. Keep probiotics refrigerated and use supplements that contain a variety of organisms. Probiotics are best taken on an empty stomach.

New Directions

Cryotherapy has recently been shown to reduce histamine with rheumatoid arthritis, relieving pain and inflammation. (9) A new supplement "Histame" also boosts DAO in the body to reduce histamine.

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