Look for Symptoms Possibly Histamine-Related*:

- Abdominal pain, spasm,
- Diarrhea, alternating with normal bowel movements
- Chronic constipation
- Flatulence and a sensation of fullness- often massive and independent of meals; occasionally upon awakening in the morning
- Headache, including migraine and menstrual migraine
- Shortness of breath
- Episodes of dizziness
- Flushing or reddening of the skin (rosacea of the face)
- Itching
- Skin rash (may be chronic or sporadic, unknown cause)
- Panic attacks, sudden changes in psychic states (e.g. aggression, difficulty concentrating, poor attention) usually during or after a meal
- “Leaden exhaustion” usually during or after a meal, often requiring sleep; however, sleep does not restore vitality
- Chills, shivers, discomfort, low blood pressure
- Intolerance to certain foods.

*These may be chronic, sporadic or of sudden onset.

Diagnosis

- Exclude conditions that cause similar symptoms
  E.g. Lactose &/or fructose intolerance; other food sensitivities, intolerances
- Elimination Diet (see below)
  Avoid all foods rich in histamine and all histamine-releasing food and medications for four weeks.

This is difficult because not all histamine-containing or -releasing foods have been identified & because of the wide range of ingredients in so many food combinations.

- In the future, a blood test to measure DAO activity may be available

Note: In a practice specializing in naturopathy, allergy diagnosis/treatment, gastrointestinal disorders, food intolerances and cancer, 220 patients out of 300 patients were worked-up for and shown to have Histamine Intolerance.

Protocol

Practitioners diagnosing and managing patients with Histamine Intolerance report successful outcomes when patients adhere to a fairly low histamine diet. That is, they do not overload on high histamine foods, foods containing biogenic amines or medications that liberate histamine. Their patients’ quality of life is greatly enhanced with the use of a diamine oxidase formula that works in the gut to degrade histamine from ingested food. Below are the recommended dosing Instructions and Cautions.

Dosing: or optimal results, take one (1) or two (2) capsules no more than 15 minutes before the consumption of histamine-rich foods or substances known to cause food intolerance; or take as directed by your healthcare practitioner. Efficacy may be somewhat reduced if taken with a meal. The DAO formula will not work well when taken after a meal.

Cautions: Supplementation with the DAO enXyme has not been clinically tested in pregnant or lactating women. The DAO enXyme is not effective for immune-related..
Any list of histamine-containing foods is only a reflection of information available to date. A systematic analysis of the many foods consumed has not been undertaken. In addition, the very same food can have different histamine content during different stages of its maturation and/or storage or deterioration. Methods of preparation (e.g. smoking) also alter histamine content.

Histamine is not degraded by heat or cold temperatures. Freezing, boiling, baking, microwaving will not reduce the content.

**Fish** (<0.1 – 13000 mg/kg) –

**Preferred:** Fresh or deep-frozen fish except those species listed to avoid.

**Avoid:**
- Tuna mackerel, sardines, anchovy, crustaceans, (e.g. lobster, crab, shrimp), herring
- Preserved, marinated, salted or dried fish
- Rolled, pickled herring
- Fish sauces

**Meat** (<0.1 – 318 mg/kg)

**Preferred:** Fresh or deep-frozen meat or poultry that has been continuously kept at adequately cold temperatures (frozen or refrigerated).

**Avoid:**
- All raw, smoked-dried and pickled sausage; salami, bacon, ham, sausage
- Preserved meat or sausage
- Packaged meats/poultry that has not been properly re-sealed after use.
- Minced or shredded meats unless they are very fresh
- Re-heated prepared dishes containing meat or poultry
- Eggs

**Cheese** (<0.1 – 555 mg/kg)

**Preferred:** Small amount of fresh cheeses produced from pasteurized milk like cottage cheese and other milk products,

- Very low histamine: Tilsiter, butter cheese, young gouda

**Avoid:**
- Cheeses with a long maturation period; e.g hard cheeses like Emmentaler, Bergkase, parmesan
- Mature or overripe pieces of soft cheeses and bleu cheese, ricotta
- Cheeses from raw milk – the flora increases the histamine content
- Milk, yogurt, kefir, cream, buttermilk

**Bread, Cereals and Confectionary**

**Preferred:** Yeast-free bread, unleavened crackers (not containing apple juice), other baked goods prepared without leavening agents

**Avoid:**
- Yeast is very high in histamine.
- Baking powder and other chemical leavening agents are high in histamine.
- Avoid all bread, rolls, pastries made prepared with leavening agents.
- Buckwheat
Vegetables & Legumes

**Preferred:** All fresh or deep-frozen vegetables other than those listed to avoid.

**Avoid:**
- Avocado, eggplant, mushrooms, pumpkin, spinach
- Tomatoes and tomato products
- Soy and soy products, especially fermented
- Red beans
- Pickles, olives, sauerkraut and any vegetable marinated in a vinegar-based marinade

Fruits

**Preferred:** Whole, fresh or deep-frozen fruits other than those listed to avoid.

**Avoid:**
- Orange, grapefruit, lemon, lime
- Apricots, plums, cherries
- Cranberries
- Prunes, dates, raisins, currants, dried cranberries
- Bananas
- Pineapple, papaya, mango
- Strawberries, raspberries, loganberries, cranberries

Beverages

**Preferred:** Purified water

**Avoid:** Note: Histamine is contained in wine in an alcohol solution, making it even less tolerated than histamine in food. Alcohol also inhibits the enzyme, DAO.
- All alcoholic beverages, including beer, ale, wine and distilled alcohol
- All special “de-alcoholized” beverages such as beer, wine
- Chocolate, cocoa and cola drinks
- Tea (green, regular, herbal)

Nuts & Seasonings

**Preferred:** Fresh herbs

**Avoid:**
- All nuts
- Sunflower seeds
- Cinnamon, nutmeg, cloves, anise
- Curry powder
- Chili powder
- Vinegar, and vinegar containing dressing or marinades
- Fish sauce, soy sauce, teriyaki sauce

Additives and Preservatives

**Avoid:**
- Tartrazine
- Benzoates
- Sulfites
- BHA, BHT
- MSG
- Nitrites
- Food colorings
Some Drugs that Release Histamine or Inhibit DAO in the Body

Acetyl Cysteine
Ambroxole (mucolytic medication)
Aminophylline (broncholytic)
 Amitryptyline (antidepressant)
Cefuroxime, cefotiam, isoniazid, pentamidin, clavulanic acid, chloroquine (antibiotics)
Cimetidine (H2 antagonist)
 Contrast media
Cyclophosphamide (cytostatic)
 Dobutamine (antihypotonic)
NSAIDs, ASA, morphine, pentedine, metamizole (analgesics)
 Metoclopramide (gut motility)
 Pancuronium, alcuronium, D-tubocurarine (muscle relaxants)
 Propafenone (antiarrhythmic)
 Prilocaine (local anaesthesia)
 Verapamil, alprenolol, dihydralazine (antihypertensives)
 Thiopental (narcotic)

*These statements have not been evaluated by the Food and Drug Administration. This product is not intended to diagnose, treat, cure or prevent any disease.