



LRA by ELISA/ACT[®]

Test Results For:

Patient, Sample
March 2, 2010

Your test results include:

- **Strong Reactions**
- **Moderate Reactions**
- **Non-Reactive Items**
- **Detailed Description of Reactive Items**
- **Laminated Wallet Card with Results**

STRONG REACTIONS

- Orange
- Tapioca
- Silicates
- Cheese, Brick (Cow)
- Potassium Bromate
- Ampicillin
- Cherry
- Gum, Agar
- Penicillamine

Avoid for at least 6 months.

STRONG FOOD GROUP(S):

• COW DAIRY

Butter (Whole)
Cheese (Cow):
 Brick
 Cottage Cheese
 Parmesan
 Processed Cheese
Lactalbumin
Lactoglobulin
Milk (Cow):
 Casein
 Milk, Pasteurized
 Milk, Raw
 Yogurt
Whey

MODERATE REACTIONS

- Potato, White
- Sesame/Tahini
- Macadamia
- FD&C Green #3
- Cola
- Sugar, Maple
- Alternaria alternata
- D & C Green #5
- Pepper, Chili, Red
- Bean, Garbanzo
- Sodium Benzoate
- Benzaldehyde

Avoid for at least 3 months.

MODERATE FOOD GROUP(S):

• NIGHTSHADES

Eggplant
Pepper, Cayenne
Pepper, Chili
Bell Pepper, All Colors
Potato, White
Tobacco
Tomato
Paprika
Pimiento

Thus of the 466 substances tested, reaction is noted to 21 items and 2 food group(s).

While both strong and moderate reactions are equally burdensome to your immune defense and repair systems, we have found that it takes about half as long to restore tolerance of moderate reactions as compared to the strong ones.

ELISA/ACT[®] LRA RESULTS

NON-REACTIVE ITEMS

- 1, 2 Dichlorobenzene
- 2-Methyl Pentane
- 2, 4, 5 T
- 2,4-D
- 3-Methyl Pentane
- Aldrin
- Alfalfa
- Algae (Chlorella)
- Algae (Spirulina)
- Allspice/Arrowroot
- Almond
- Aluminum
- Amaranth
- Amitriptyline (Elavil)
- Amoxicillin
- Anchovy
- Anise Seed
- Annatto
- Antimony
- Apple
- Apricot
- Arnica
- Arsenic
- Artemisia anua
- Artichoke
- Asparagus
- Aspartame/Nutrasweet
- Aspergillus Fumigatus
- Aspergillus niger
- Aspergillus oryzae
- Aspirin/Coal Tar
- Astragalus
- Avocado
- Baker's Yeast (*Geotrichum*)
- Baking Powder
- Banana
- Barium Sulfate
- Barley
- Basil
- Bass
- Bay Leaf
- Bean, Kidney
- Bean, Lima
- Bean, Mung
- Bean, Navy/Ninja
- Bean, Pinto/Frijole
- Bean, Soya
- Bean, String/Wax
- Beef/Veal
- Beet
- Benzene
- Benzopyrene
- Benzyl Acetate
- Bergamot
- Beryllium Oxide
- BHA
- BHT
- Black Cohash
- Blackberry
- Blueberry
- Bok Choi
- Botrytis cinerea
- Boysenberry
- Brazil Nut
- Brilliant Black
- Broccoli
- Buckwheat/Kasha
- Buffalo
- Butter, Clarified (Ghee)
- Cabbage/Brussels Sprouts
- Cadmium
- Caffeine
- Calcium Propionate
- Candida albicans
- Cantaloupe/Honeydew
- Caraway Seed
- Carbamates
- Carbon Disulfide
- Carbon Tetrachloride
- Carmine/Cochineal
- Carmoisine
- Carob
- Carrot
- Cashew
- Cat Dander (*Felis cattus*)
- Catfish
- Cauliflower
- Celery
- Cellulose/Hemicellulose
- Cephalexin (Keflex)
- Chamomile
- Chard
- Cheese, Romano (Sheep)
- Cheese/Milk (Goat)
- Chestnut
- Chicken
- Chinese Tea
- Chive
- Chlordane
- Chloroform
- Chocolate/Cocoa
- Chrysanthemum
- Cilantro
- Cinnamon
- Ciprofloxacin (Cipro)
- Cis-Dichloroethylene (1, 2-
- Cladosporium cladosporioides
- Cladosporium herbarum
- Clam
- Clarithromycin (Biaxin)
- Clove
- Coconut
- Cod Liver Oil
- Codfish
- Codium
- Coffee, Decaf & Reg
- Collard Greens
- Coriander
- Corn (Maize)
- Cottonseed Oil
- Crab
- Cranberry
- Cucumber
- Cucumber, Japanese
- Cumin
- Currant
- Curry
- Cyclohexylamine
- D & C Orange #5

ELISA/ACT[®] LRA RESULTS

NON-REACTIVE ITEMS, CONT'D

- D & C Red #33
- D & C Violet #2
- Dahlia Flower (Cultorum)
- Dashi Kombu
- Date
- DBCP (1,2 Dibromo-3-chloropropane)
- DDT
- Deer/Venison
- DEET
- Detergent (Synthetic)
- Diacetyl (2,3-Butanedione)
- Diazepam (Valium)
- Dibutyl Phthalate
- Dieldrin
- Dill
- Docosanol (Abreva)
- Dog Dander (Canis familiaris)
- Dong Quai
- Dried Laver
- Duck Feathers (Anas platyrhynca)
- Duck/Goose
- Echinacea
- Eel
- Egg White (Chicken)
- Egg Yolk (Chicken)
- Elk
- Endive
- Endrin
- Ephedra
- Epidermophyton floccosum
- Erythromycin
- Ethyl Acetate
- Ethyl Acetoacetate
- Ethyl Butyrate
- Ethylene Dibromide
- FD&C Blue #1
- FD&C Blue #2
- FD&C Orange #4
- FD&C Red #2
- FD&C Red #3
- FD&C Red #40
- FD&C Yellow #10
- FD&C Yellow #5
- FD&C Yellow #6
- Feverfew
- Fig
- Flaxseed/Linseed Oil
- Fluconazole (Diflucan)
- Formaldehyde
- Fusarium vasinfectum
- Garlic
- Gelatin
- Gin (Juniper Berries)
- Ginger
- Ginseng, American
- Ginseng, Chinese
- Ginseng, Siberian
- Gliadin
- Gluten
- Goat Hair/Skin Scraping (Capra hircus)
- Gold
- Goldenseal/Hydrastis
- Goose Feathers (Anser anser)
- Grape Seed Oil
- Grape/Raisin, Green
- Grape/Raisin, Red
- Grapefruit
- Guaifenesin (Mucinex)
- Guinea Pig Hair (Cavia porcellus)
- Gum, Acacia
- Gum, Carrageenan
- Gum, Guar
- Gum, Locust Bean
- Gum, Tragacanth
- Gum, Xanthan
- Haddock
- Halogenated Biocide
- Hawthorne
- Hazelnut/Filbert
- Helminthosporium halodes
- Helminthosporium sativum
- Heptachlor
- Hexachlorocyclohexane
- Hijiki
- Honey
- Hops
- Horse Dander (Equus caballus)
- Horseradish
- Hydrogenated Oil
- Hydroxychloroquine (Plaquenil)
- Hypericum/St. John's Wort
- Ibuprofen
- Isopropyl Ether
- Kale
- Kamut
- Kelp/Sea Weed
- Kiwi
- Kombu
- Lamb/Mutton
- Latex
- Lead
- Leek
- Lemon
- Lemongrass
- Lentils, Red, Green
- Lettuce, Iceberg
- Lettuce, Red Leaf
- Lettuce, Romaine
- Licorice
- Lime
- Lobster
- Lomatium
- Mace
- Maleic Anhydride
- Malt
- Mango
- Marjoram
- Mercury
- Mesalamine (Asacol)
- Metallic Catalysts
- Methoxychlor
- Methylene Chloride (Dichloromethane)
- Methylphenidate (Ritalin)
- Millet
- Miso, Barley
- Miso, Brown
- Miso, Hatcho
- Miso, White
- Molasses

ELISA/ACT[®] LRA RESULTS

NON-REACTIVE ITEMS, CONT'D

- Morpholine
- MSG (Monosodium Glutamate)
- Mucor mucedo
- Mucor racemosus
- Mushroom
- Mushroom, Shiitake
- Mushroom, Straw
- Mushroom, Wood Ear
- Mustard Greens, Spice
- Naproxen
- Nectarine
- Nickel (II) Chloride
- Nitrates/Nitrites
- Nitrosamine Mix
- Nutmeg
- Nystatin
- Oats
- Okra
- Olive
- Omeprazole (Prilosec)
- Onion, Yellow
- Oregano
- Organophosphates
- Oyster
- Papaya
- Parsley
- Parsnip
- Pea, Black-Eyed
- Pea, Green, Snow
- Peach
- Peanut
- Pear
- Pecan/Pine
- Penicillin
- Penicillium chrysogenum
- Penicillium frequentans
- Penicillium notatum
- Penicillium roqueforti
- Pentachlorophenol (PCP)
- Pepper, Black
- Pepper, White
- Peppermint
- Perch/Mackerel
- Petroleum By-Products & Solvents
- Phenol
- Phthalates
- Pineapple
- Pinene
- Piroxicam (Feldene)
- Pistachio
- Plum, Umeboshi
- Plum/Prune
- Poke Weed Mitogen
- Polysorbate 60
- Polysorbate 80
- Polyvinylpyrrolidone
- Ponceau 2R
- Ponceau 4R
- Poppy Seed
- Pork/Bacon/Ham
- Potato, Sweet/Yam
- Primrose Oil
- Propyl Gallate
- Propylene Glycol (1,2-Propanediol)
- Psyllium Seed
- Pullularia pullulans
- Pumpkin
- Pyrene
- Quail
- Quinoa
- Rabbit
- Rabbit Hair (Oryctolagus cuniculus)
- Radish
- Rapeseed/Canola Oil
- Raspberry
- Red Oil
- Resin
- Rhizopus nigricans
- Rhizopus stolonifer
- Rhodotorula
- Rhubarb
- Rice, Basmati
- Rice, Brown
- Rice, White
- Rice, Wild
- Rose Hips
- Rosemary
- Royal Jelly
- Rutabaga
- Rye
- Saccharine
- Safflower Oil
- Sage
- Salicylate
- Salmon/Lox
- Sardine
- Scallion/Spring Onion
- Scallop
- Sea Cucumber
- Selenium Sulfide
- Sheep Wool (Ovis aries)
- Shrimp
- Silicone
- Silver
- Slippery Elm
- Snake (Rattle)
- Snapper
- Soap (SDS/SLS)
- Sodium Fluoride
- Sodium Propionate
- Sole/Flounder/Halibut
- Sorbitol
- Spearmint
- Spelt
- Spinach
- Squash
- Strawberry
- Streptomycin
- Sucanat
- Sugar, Beet
- Sugar, Cane
- Sugar, Corn
- Sulfite/Metabisulfite
- Sunflower
- Swordfish
- Tamari
- Tamarind
- Tangerine/Mandarin Orange
- Tarragon

ELISA/ACT[®] LRA RESULTS

NON-REACTIVE ITEMS, CONT'D

- Tea, Black
- Tert-Butyl-Ethyl Ether (TBEE)
- Tert-Butyl-Methyl Ether (TBME)
- Tetrachloroethylene
- Tetracycline
- Thricothecium roseum
- Thyme
- Tin/Stannous Chloride
- Titanium Dioxide
- Tofu
- Toluene
- Trichloroethylene (TCE)
- Trichophyton
- Trichophyton mentagrophytes goetzii
- Trichophyton mentagrophytes interdigit
- Trichophyton rubrum
- Trichophyton schoenleinii
- Triticale
- Trout
- Tuna
- Turbot/Whitefish
- Turkey
- Turkey Feathers (Meleagris gallopavo)
- Turmeric
- Turnip, Greens
- Tylenol (Acetaminophen)
- Valerian
- Vanilla
- Vinyl Chloride
- Wakame
- Walnut Oil, Black
- Walnut, English
- Water chestnut
- Watercress
- Watermelon
- Wheat
- White Willow Bark
- Xylene
- Xylitol
- Yaki Nori
- Yeast, Brewer's (Torula)

Interpretation of ELISA/ACT[®] LRA Test Results

Lymphocytes exposed to antigens to which they have become sensitized in the body ("recall antigens") activate when they react with these substances under controlled laboratory conditions. Lymphocytes react to antigen-specific, complement-activating antibodies (IgA, IgM, and IgG), Ig-M-anti-IgG immune complexes, and cell-mediated direct lymphocyte antigen recognition. Briefly, mixed cell cultures in patient autologous plasma are exposed to the foreign antigen in pre-coated incubation plates cultured under ex-vivo conditions, and lymphocytes are observed for reactivity. Reaction indicates loss of tolerance and development of hypersensitivity.

- **Strong reaction means that > 50% of cultured lymphocytes react.**
- **Moderate reaction means that 5-50% of cultured lymphocytes react.**

Avoidance of **strong** reactors for **six (6) months** and **moderate** reactors for **three (3) months** can reduce the load on the immune system. The goal of avoidance of reactive substances is to allow immune mechanisms to reset. This can restore tolerance, enhance repair, and reduce the autoimmune and immune dysregulation load on the body's defense systems.

Only if you reacted to a food group(s), it will be displayed on the test result summary sheet. A complete food group is noted when two or more foods in that group are reactive. The only exception to this is dairy because it is commonly found to be cross-allergenic. Therefore, the dairy group will appear in bold if even one item in that group is reactive. **It is recommended to avoid all items in a food group if it is in bold.** Please see your health professional for more information.

Reactive items are an adverse load on your body's immune defenses. This means a reduced ability to respond to new or chronic infections. Reactive items also decrease immune activities needed to repair your body. This can provoke inflammation and self-attack ("autoimmunity"). Avoiding reactive items can break the cycle of impaired defense and repair, allowing your body to start the recovery and repair process.

Immediate reactions (IgE linked) are usually detected by routine skin tests or RAST tests.

Protective memory (non-reactive IgG) antibodies do not provoke symptoms and are not affected by ELISA/ACT[®] LRA tests. This is an advantage of lymphocyte response assays in detecting only the items that provoke reactions.

Cross-reaction between intestinal pathogens and items tested can occur. It is possible to react to an item that is not eaten. Improved digestive health can replace these pathogens with healthy organisms, reducing this source of reactivity.

Occasionally, people have metabolic (non-immune) reactions. ELISA/ACT LRA tests measure only immune delayed hypersensitivity.


Lab Director

MD, Ph.D., FASCP, FACAAI, FACN

Orange

History : Oranges are the largest citrus crop in the world. The two most common varieties of oranges are navel oranges and valencia oranges.

Sources of Exposure: Fresh fruit, juices and vegetable salads. Take care to check for fruit sweeteners and natural fruit flavorings in beverages, baked goods, jams, jellies and candies.

Substitutions: Non-reactive citrus fruits and juices.

Cheese, Brick (Cow)

Items Tested: The **DAIRY** category includes Butter, Whole; Butter, Clarified (Ghee); Cheese, Brick (Cow); Cheese, Cottage (Cow); Cheese, Parmesan (Cow); Cheese, Processed (Cow); Casein; Lactalbumin; Lactoglobulin; Milk, Pasteurized (Cow); Milk, Raw (Cow); and Yogurt (Cow). Casein, Lactalbumin and Lactoglobulin are various proteins found in dairy products. Ghee or clarified butter is a derivative of butter. It is made by melting butter and removing all the milk solids.

History/Discussion: If you are reactive to one or more products in the cow **DAIRY** family, it will be listed on your results in bold as **DAIRY**. This is done to draw your attention to the greater possibility of cross-reactivity to other dairy products, possibly resulting in the development of more reactions in this group. Therefore, it is recommended that you avoid all cow dairy products. **The only exception to this avoidance of all dairy recommendations involves organic ghee.** Ghee or clarified butter is a derivative of butter. It is made by melting butter and removing all the milk solids. If you are shown sensitive to whole butter but not to clarified butter (ghee) you may try using organic ghee while avoiding whole butter. Substitute as described below.

Sources of Exposure: Sandwiches and baked goods containing solid cheese.

Substitutions: Sheep and goat cheeses.

Cherry

History/Discussion : The cherry fruit *Prunus avium* is a member of the Rosaceae family. It is native to Europe.

Sources of Exposure: Take care to check for fruit sweeteners and natural fruit flavorings in beverages, baked goods, jams, jellies and candies.

Substitutions: Any non-reactive fruit.

Tapioca

History/Discussion: Tapioca is a highly starchy root vegetable in the spurge family.

Sources of exposure: Chips, soups and other processed foods (check labels).

Substitutions: Potato, yam or any other non-reactive starchy vegetable of choice.

Note: Avoidance of specific foods to which you react is sufficient. There is no added benefit in avoiding a complete food family unless specifically directed to.

Potassium Bromate

Items Tested: Potassium bromate is a colorless white crystal used as a flour-treating agent to improve the color and/or baking qualities of flour; it is known as a dough extender or conditioner. It gives bread a sponge-like quality. Because it is a strong oxidizing agent, potassium bromate has also been used as a preservative to keep foods from spoiling.

History/Discussion: Pure potassium bromate is very toxic when taken internally and has been reported to cause skin irritations and burns in industrial exposures to toothpaste. In toothpaste it has been reported to have caused inflammation and bleeding of gums. In 1980, the Ames Test found it to be a mutagen. The World Health Organization Committee on Food Additives said in 1993 that new data about potassium bromate showed long-term toxicity and carcinogenicity with possible effects including kidney tumors, tumors of the stomach lining, thyroid tumors in rats and slightly increased kidney tumors in hamsters. On the basis of the new safety data and the new data on residual bromate in bread, the committee concluded that the use of potassium bromate as a flour-treatment agent was not appropriate. Potassium bromate decomposes at high temperatures so fortunately most of it decomposes to potassium bromide (not an oxidizing agent) during the baking of bread. However, the health effects of either compound have not been adequately addressed in humans. Kidney and ear damage can occur when toxic amounts are ingested. Exposure to this substance during pregnancy has been associated with severe problems for the infant, perhaps the most urgent concern with this compound. Interestingly, the deleterious effects of its oxidation of body tissues can be noted in laboratory testing and this deterioration can be prevented with the use of glutathione and/or cysteine.

Sources of Exposure: Found as an additive in breads and baked goods. Potassium bromate is also used in over-the-counter products such as mouthwash, toothpaste, home hair wave/permanent solutions and some photographic supplies. In Europe, vitamin C is used as a replacement for bromate; breads and baked goods labeled 'non-bromated' can now be commonly found.

Substitutions: Non-bromated flours (such as King Arthur and Erewhon) are increasingly available.

Gum, Agar

Item Tested: Agar agar, also known as agar gum, is a tasty gel made from *Gelidium amansii*, a red algae (the seaweed itself is known simply as agar).

History/Discussion: Agar agar is a versatile, tasty gel that sets at room temperature. It is traditionally made in the Orient by rinsing, cleaning, sun bleaching and re-rinsing the specific red algae known as *Gelidium amansii*. After this initial process the seaweed is boiled and poured through filters and into frames. Then the mixture is freeze-dried, recleaned and redried, producing feather-light translucent bars. Flakes from these bars, known as agar flakes, are used to produce agar gel. Agar gum can be used as a mild laxative, but its most important function is as a food. The Japanese gelatin dessert, kanten, is made from agar gum.

Sources of Exposure:

Agar gum may be found in certain health and oriental food products as a thickening agent. It is also a common element in Japanese cuisine and may be found in Japanese desserts, as well as other dishes.

Substitution:

Any other non-reactive thickeners such as: kudzu, corn starch and arrowroot.

Silicates & Silicon Dioxide

Items Tested: Silicates are salts or esters derived from silicic acid. These are complex metal salts that contain silicon and oxygen. The simplest silicate is sand, silicon dioxide, which is comprised of one silicon atom combined with two oxygen atoms.

History/Discussion: Silicate derivatives are commonly used as food additives to prevent caking and lumping. The typical silicate additives used include: aluminum silicate, calcium silicate, sodium aluminosilicate, magnesium silicate, tricalcium silicate, and sodium calcium aluminosilicate (hydrated). Although silicon dioxide is a food additive used as an anti-caking agent in a wide variety of foods, it has numerous other uses. It is used as a stabilizer in making beer, as an adsorbent for l-alpha tocopherol (vitamin E) and other vitamins, as well as BHT, and as a diluent in the inks used to mark fruits and vegetables. It is not allowed in infant foods. The maximum amount allowed to be added to foods is 2% by weight, but the ADI (Adult Daily Intake; EPA) is probably higher than that. It is not a GRAS (Generally Regarded As Safe; FDA) substance, but tolerance/acceptable intake levels have been developed based on the fact that specific toxicologic effects cannot be demonstrated at the ADI dose. Many silicates are associated with aluminum, and although these silicates are GRAS substances, aluminum and silicon together may have additive adverse health effects, a possibility which has not been adequately examined.

Silicates and silicon dioxide are not to be confused with silica, a common nutritional mineral or with silicone, a manufactured polymer which encompasses a large group of oils, rubber, resins and other compounds derived from silica.

Sources of Exposure: Some of the silicate derivatives are used in table salts or added to baking powder. Silicon dioxide can be used in the manufacture of beer, in salt and salt substitutes, in sodium propionate, and as a vehicle for delivering BHT and some vitamins.

Ampicillin

Item Tested: Ampicillin is a form of penicillin known as an "extended-spectrum aminopenicillin".

History/Discussion: Ampicillin is a beta-lactam antibiotic, a semi-synthetic antibiotic structurally related to penicillin. Ampicillin therapy is associated with a higher incidence of rash than are other penicillins; ten percent as opposed to two percent. Most of the rashes associated with ampicillin occur at least one week after institution of therapy and occasionally as late as the third or fourth week after treatment has been discontinued.

Sources of Exposure: Ampicillin is sold under various trade names including Augmentin, Clavulin, Alphamox, Amoxil, Trimox, Utimox and Wymox. Ampicillin is used in veterinary medicine as well as with humans, and therefore animal products may contain traces of the drug. This is another reason why those seeking to lower their immunologic load, increase host resistance and regain health should consume biodynamically or organically grown foods, including organic flesh food and dairy products.

Substitutions: Other non-reactive antibiotics. At times natural herbal antibiotics and antioxidant nutrient supplement can replace chemical antibiotics. The use of a fully buffered Vitamin C (as the PERQUE Buffered Ascorbate, call our Client Services department, 800-553-5472 for protocol) and a quercetin with proanthocyanidins (as the PERQUE Bio Quercetin, 1000 mg two to four times a day) is helpful. High dose echinacea (1 tablespoon a day for 5 days a week) is both antibiotic and immune enhancing. Other herbs with an antibiotic action include astragalus, berberine (as from goldenseal), Oregon grape, barberry root, and garlic.

Penicillamine

Item Tested: Penicillamine, 3 Mercapto-D-valine is a non-metabolized amino acid.

History/Discussion: Penicillamine is a chelating agent used in the treatment of lead poisoning, copper overload (Wilson's Disease), mercury overload and heavy metal toxicity in general. It is also used as a drug treatment for rheumatoid arthritis where it appears to inhibit collagen formation.

Penicillamine is a recognized metabolite of penicillin. It is now, however, produced synthetically. Synthetically produced Penicillamine contains no penicillin antigen.

Short term, occasional use of Penicillamine as a chelating agent, as per the protocol of Jaffe, 1996, is generally safe and effective. Longer term, daily use of this drug can lead to alternations in the white blood cells and damage to cell cross linking which has been associated with a lupus-like syndrome. Myasthenic syndrome is another adverse reaction associated only with long term use of Penicillamine.

Sources of Exposure: Penicillamine is sold under the trade names of Cupramine, Depen and D-Penaminate.

Substitutions: Non-chemical agents which help to remove heavy metals from the body include Vitamin C, garlic, the sulfur amino acids methionine and cysteine, adequate water, higher fiber diets and sauna therapy.

COW DAIRY

Items Tested: The **DAIRY** category includes Butter, Whole; Butter, Clarified (Ghee); Cheese, Brick (Cow); Cheese, Cottage (Cow); Cheese, Parmesan (Cow); Cheese, Processed (Cow); Casein; Lactalbumin; Lactoglobulin; Milk, Pasteurized (Cow); Milk, Raw (Cow); and Yogurt (Cow). Casein, Lactalbumin and Lactoglobulin are various proteins found in dairy products. Ghee or clarified butter is a derivative of butter. It is made by melting butter and removing all the milk solids.

History/Discussion: If you are reactive to one or more products in the cow dairy family, it will be listed on your results in bold as **DAIRY**. This is done to draw your attention to the greater possibility of cross-reactivity to other dairy products, possibly resulting in the development of more reactivates in this group. Therefore, it is recommended that you avoid all cow dairy products and substitute as described below.

Substitutions: The exception to this avoidance of all dairy recommendations involves organic ghee. If you are shown sensitive to whole butter but not to clarified butter, which is also known as ghee, you may try using organic ghee while avoiding whole butter.

Potato, White

History/Discussion:

White Potato (*Solanum Tuberosum L*) is a member of the *Solanaceae* (Nightshade) family.

Plants in the Nightshade family contain, to varying degrees, chemical compounds (alkaloids called solanins) with pharmacological and toxic effects. This family contains some toxic, as well as some food plants. Also included in the nightshade family is poison sumac. All nightshade foods contain some solanins; sumac contains the most. Other common members of this family include tomatoes and bell peppers

Sources of Exposure: Potatoes can be used as chips, in casseroles, stews, baked goods such as pies and bread. Potatoes can also be used as a filler or thickener in soups, desserts and gravies.

If you are reactive to two or more items in the nightshade family we recommend you avoid all the items in this family because the chance of cross-reactivity and/or developing new sensitivities is great.

If potato is reactive, all potatoes (**except** sweet potatoes or yams) and items containing potato starch and/or flour should be avoided.

Substitutions: Any of the non-reactive vegetables.

Cola

History/Discussion: The cola nut is employed to give a "cola" flavor to drinks.

Sources of Exposure: The cola soft drinks are Pepsi Cola, Coca Cola, health food colas, etc.

Substitutions: Water, lemon and other juice water, herb teas, fruit juice spritzers and fruit smoothies.

Pepper, Chili, Red

History/Discussion: Plants in the Nightshade family contain, to varying degrees, chemical compounds (alkaloids called solanins) with pharmacological and toxic effects. This family contains some toxic, as well as some food plants. Also included in the nightshade family is poison sumac. All nightshade foods contain some solanins; sumac contains the most.

Sources of Exposure: Chili pepper and foods with chili pepper added as a spice. If you are reactive to two or more items in the nightshade family we recommend you avoid all the items in this family because the chance of cross-reactivity and/or developing new sensitivities is great.

Substitutes: Any of the non-reactive spices.

Sesame/Tahini

Sources of Exposure: If you are sensitive to sesame, take care to read carefully the labels on all salad dressings. Tahini is sesame seed butter and it may be a component of various Mediterranean and health foods, such as hummus (chick pea spread) and cookies.

Substitutions: Any non-reactive nut or seed of choice.

Sugar, Maple

Items Tested: Maple sugar (maple syrup) is usually listed as such on any products that contain it.

Sources of Exposure: It is found in many breads and baked goods.

Substitutions: Other sugars, rice syrup, and barley malt (assuming you do not react to them) may be substituted for maple sugar.

Bean, Garbanzo

History/Discussion: Garbanzo beans, also called chick peas, are a member of the *Fabaceae* (legume) family.

Sources of Exposure: Vegetarian dishes, soups, salads, hummus and other processed foods (check labels).

Substitutions: Mung, navy, lima, kidney beans or any other non-reactive bean or vegetable of choice.

Note: Avoidance of specific foods to which you react is sufficient. There is no added benefit in avoiding a complete food family unless specifically directed to.

Macadamia

History/Discussion: Macadamias are the seeds of the *Macadamia ternifolia* tree, a member of the *Proteaceae* family, a group of Australian evergreens.

Sources of Exposure: Desserts, cakes, cookies and other processed foods (check labels).

Substitutions: Almond, walnut, cashew and other non-reactive nuts of choice.

Note: Avoidance of specific foods to which you react is sufficient. There is no added benefit in avoiding a complete food family unless specifically directed to.

Alternaria alternata

Item Tested: *Alternaria* is a genus of common fungi. *Alternaria alternata* is one such species.

History/Discussion: The genus *Alternaria* is basically considered an outside mold found in plants, soil and air. The grouping as a whole is abundant in the atmosphere and is the major cause of what we know as "hay fever". In September, symptoms caused by *Alternaria* are frequently mistaken for ragweed symptoms. *Alternaria* is one of the major widespread molds that produce allergic symptoms, and is among the most clinically significant reactive airborne fungus allergen. *Alternaria* can infest plants both in the field and in storage. The genus as a whole is a primary fungus on wheat, sorghum and barley. The black spots on tomatoes are produced by *Alternaria*. *A. alternata* is extremely common and has been isolated from many kinds of plants and their substrates including seeds, soils, foodstuffs, wood and wood pulp, fungicide-treated utility poles and textiles. *A. alternata* is known to produce mycotoxins.

Sources of Exposure: *Alternaria* grows on organic debris in the soil and manure, on leaves, stems, flowers and many fruits and vegetables. It also grows on cereal grains (such as wheat and barley), sorghum, mildewed paper products and ornamental plants. Counts in the air are particularly high between noon and 3 PM. These airborne fungi are common through out the growing season in temperate areas, with peak spore levels occurring in the late summer and autumn. Counts are particularly high during hot, breezy period when "dry-spore" forms abound. *A. alternata* is a common primary colonizer of dying plant materials. *A. alternata* is a very common spore in outside air. The spores are adapted for solar radiation tolerance and thus may survive long periods in the air exposed to solar rays. *A. alternata* is an occasional contaminant of water damaged, indoor materials.

Recommendations for those hypersensitive to *Alternaria alternata*: All foods should be properly stored, refrigerated as necessary, washed thoroughly before consuming and eaten while still fresh. It is also interesting to note that the more healthy the plant, the more resistant its fruit will be to premature rot and spoilage. Thus the use of biodynamically grown, organic foods is highly recommended. Freshly made fruit juices and homemade fruit smoothies help limit mold exposure from commercial fruit juices. Careful cleaning, drying and ventilation of bathrooms, kitchens, and other moist areas is also important. Control of household humidity is also essential. A relative humidity of 50-60% is desirable. Exposure to airborne indoor mold spores can be greatly reduced by careful air filtration along with adequate ventilation in general. Such filtration could include all house HEPA filters, HEPA filters put on the cooling or heating systems, and single room HEPA filters with ionizers to collect particulate matter. Avoid dead plant material and moldy hay.

Sodium Benzoate (Benzoic acid)

Items Tested: Sodium benzoate is a white, odorless powder or crystal used as a preservative.

History/Discussion: Sodium benzoate is a widely used preservative. It has been used as a preservative and antimicrobial agent in foods and beverages since the early 1900's. It is also used to preserve medications and cosmetics. It may cause headaches, hives, asthma and hyperactivity in sensitive adults and children.

Sources of Exposure: Sodium benzoate is found in many medications, packaged foods, margarines, fruit juices, pickles, jelly preserves, jams, confections, and soft drinks. It is used in ice for cooling fish. It is also used as an antiseptic and preservative in face and eye creams and toothpaste. It has no known toxicity for external use but is moderately toxic when ingested. Benzoate-free medications are often available from compounding pharmacies and apothecaries. Should your physician be unfamiliar with these compounds you may contact your local pharmacy, or ELISA/ACT Biotechnologies.

FD&C Green #3

Item Tested: FD& C Green #3 is also called Fast Green and Sea Green.

History/Discussion: FD&C Green # 3 was originally a coal tar derivative. It was permanently listed by the Food and Drug Administration for use in food, drugs and cosmetics, except in the area of the eye, in 1983. The World Health Organization gives it a rating of 1A, meaning that it is completely acceptable. FD&C Green # 3 has been suspected of being a sensitizer in the allergic. It produces malignant tumors at the site of injection when introduced under the skin of rats.

Sources of Exposure: FD&C Green # 3 is used in mint-flavored jellies, frozen and gelatin deserts, candy, puddings, ice cream, sherbet, cherries, confections, beverages, baked goods, baking products and cereals. It is also used in cosmetics, medications and as a biological stain in laboratory work.

Substitutions: Any of the non-toxic natural colors from food and/or plants.

D&C Green #5

Item Tested: D&C Green #5 may also be known as Alizarin Cyanine Green F; C.I. Acid Green 25; Diachromate Green G; Benzenesulfonic acid, 2,2'-((9,10-dihydro-9,10-dioxo-1,4-anthracenediy)diimino)bis(5-methyl-, disodium salt

History/Discussion: D & C Green #5 is an artificial coloring agent approved for use in sutures, topically applied drugs and cosmetics.

Sources of Exposure: D&C Green No. 5 has been reported used in the following product types: lipstick; body wash/cleanser; hair color and bleaching; styling gel/lotion; antiperspirant/deodorant (men's); bar soap; fragrance for men; facial cleanse; after shave; and toothpaste.

Substitutions: Any of the non-toxic natural colors from food and/or plants.

Benzaldehyde

Items Tested: Many substances are added to foods to impart a particular flavor. Benzaldehyde is one of these flavor "imparters". It is a colorless liquid with a burning taste and bitter almond odor.

History/Discussion: It is usually derived from the oil of bitter lemon. Whether this substance is truly safe and free of adverse health effects has not been determined. By US government definitions it is considered highly toxic and has been considered a cancer-causing agent.

Sources of Exposure: Benzaldehyde is used at times in beverages, ice cream, ices, candy, baked goods, chewing gum, and cordials. It can also be found in some cosmetic creams and lotions, perfumes, soaps and dyes.

NIGHTSHADES

Items Tested: There is a family of plants called the Solanaceae family or nightshades. Eggplant, bell peppers, paprika, white potato, tobacco, and tomato are members of this nightshade family tested.

History/Discussion:

Plants in this family contain, to varying degrees, chemical compounds (alkaloids called solanins) with pharmacologic and toxic effects. This family contains some toxic, as well as some food plants. Also included in the nightshade family is poison sumac. All nightshades contain some solanin; sumac contains the most.

Sources of Exposure:

Potatoes, tomatoes and bell peppers are foods widely distributed in the U.S. diet. Many sources of exposure to these foods are obvious, potatoes can be an unexpected filler or thickener (as in soups), while tomatoes and peppers can be hidden under the label of "natural flavorings and spices". Eggplant and tobacco generally easy to identify.

If you are reactive to two or more items in the nightshade family we recommend you avoid all the items in this family because the chance of cross-reactivity and/or developing new sensitivities is great. All peppers (green, yellow, red, sweet, hot, etc.) should be avoided, as well as all potatoes (except sweet potatoes or yams) and items containing potato starch and/or flour should be avoided.

Substitutions: Any of the non-reactive vegetables.

ELISA/ACT LRA RESULTS

Patient, Sample

62145 3/2/2010

Expected Re-Test Date is 9/3/2010

STRONG REACTIONS

Orange	Cheese, Brick (Cow)	Cherry
Tapioca	Potassium Bromate	Gum, Agar
Silicates	Ampicillin	Penicillamine

STRONG FOOD GROUP(S):

COW DAIRY

MODERATE REACTIONS

Potato, White	Cola	Pepper, Chili, Red
Sesame/Tahini	Sugar, Maple	Bean, Garbanzo
Macadamia	Alternaria alternata	Sodium Benzoate
FD&C Green #3	D & C Green #5	Benzaldehyde

MODERATE FOOD GROUP(S):

NIGHTSHADES

Rotation Diet Plan
for
Sample Patient
62145

At a glance:

Rotation of foods is often indicated to strengthen the immune system while avoiding allergies and hypersensitivities shown by the LRA by ELISA/ACT tests.

- The enclosed diet outline is based on a 4 day rotation plan.
- Each day provides a list of foods to choose from for that day.
- It is not necessary to eat all the items listed for that day; you may make your choice according to your preference.
- Amounts can be modified based on individual needs or requirements.
- For adequate digestive repair and restoration we provide for a "Juice or Liquids Only Day". This diet plan shows Sunday as the Juice Day. However, you may choose any day.

Please note that the EAB Rotation Diet is designed to help you get started on rotation and can be individualized. It complements the LRA by ELISA/ACT and Alkaline Way health restoration program.

Rotation Diet for Sample Patient

62145
3/2/2010

Sunday (or Day 1)

Fish

fish broth

Fowl

turkey broth 16-oz chicken broth 16-oz

Fruit

berry juice	8-oz	grapefruit juice	8-oz	pineapple juice	8-oz
apricot juice	8-oz	prune juice	8-oz	peach juice	8-oz
grape juice	8-oz	apple juice	8-oz	melon juice	8-oz
pear juice	8-oz	lemon juice			

Grains

wheatgrass juice 2-oz

Meat

meat broth 16 oz

Miscellaneous

herb tea 16 oz seaweed broth 8-oz miso broth 16-oz

Mollusks

clam broth 8-oz

Spices and Seasonings

ginger tea 16-oz

Sugars

honey 2-T

Vegetables

vegetable broth	as desired	carrot juice	as desired	beet	as desired
cucumber	as desired	lettuce	as desired	spinach	as desired
onion	as desired	watercress	as desired	cabbage	as desired
alfalfa sprouts	as desired	kale	as desired	broccoli	as desired
garlic	as desired	celery	as desired	chive	as desired
parsley	as desired				

- Note:**
1. Plan one juice day per week - Sunday or Day 1
 2. If you are reactive to any yeast, no fruit for first month.
 3. For menu ideas and recipes, please refer to the Joy of Food [Alkaline Way Handbook](#)

Monday**Crustaceans**

lobster 4-oz

Fish

salmon/lox	4-oz	swordfish	4-oz	sole	4-oz
flounder	4-oz	snapper	4-oz	anchovy	

Fowl

egg-chicken	2	egg-duck	2	game fowl	4 oz
chicken	4 oz				

Fruit

pear	4	blackberry	8-oz	watermelon	8-oz
persimmon	8-oz	pomegranate	6-oz	pineapple	8-oz
tangerine	4	currant (dry)	2-oz	apple	4
lemon	4	lime	4		

Grains

barley		amaranth		rice(white)	
corn					

Meat

beef 3-oz

Miscellaneous

sea salt		miso(hatcho)	1-T		
----------	--	--------------	-----	--	--

Mollusks

oyster 4-oz

Nuts and Seeds

pecan	2-oz	hazelnut/filbert	2-oz	pistachio	2-oz
flax	2-oz				

Oils

corn oil	1-T	flax seed oil	1-T	olive oil	1-T
----------	-----	---------------	-----	-----------	-----

Spices and Seasonings

horseradish		thyme		curry	
mustard					

Sugars

sucanat 1-T

Vegetables

sweet potato	12-oz	lima bean	6-oz	lettuce-iceberg	8-oz
green peas	8-oz	cabbage	8-oz	onion	6-oz
celery	8-oz	olive	2-oz	artichoke	8-oz
carrot	8-oz	corn			

Tuesday**Crustaceans**

shrimp 4-oz

Dairy

ghee 2- T sheep cheese 2-oz

Fishtrout 4-oz bass 4-oz pike 4-oz
catfish 4 oz perch 4-oz**Fowl**

duck 4-oz goose 4-oz

Fruitgrapes 8-oz raisins 2-oz coconut 8-oz
peach 4 nectarine 4 banana 4
figs (dry) 2-oz cranberry 4-oz blueberry 8-oz
papaya 8-oz**Grains**millet tritcale wheat
quinoa**Meat**

pork 3-oz rabbit 3-oz

Miscellaneousherb tea 16-oz tofu 5-oz sea salt
seaweed/kelp 1-oz**Mollusks**

scallops 4-oz

Nuts and Seedspeanut 2-oz pine 2-oz brazil 2-oz
sunflower 2-oz cashew 2-oz**Oils**peanut oil 1-T primrose oil 1-T safflower oil 1-T
sunflower oil 1-T**Spices and Seasonings**rosemary mace peppermint
garlic dill ginger**Sugars**

molasses 1-T

Vegetablesturnip 8-oz mushroom 4-oz cauliflower 6-oz
cucumber 8-oz sunflower sprouts 4-oz wheat sprouts 6-oz
string bean 8-oz parsley 4-oz kohlrabi 8-oz
lentils(dry) 2-oz lettuce-red leaf 8-oz brussel sprouts 8-oz
kale 8 oz

Wednesday**Crustaceans**

crab 4-oz

Dairy

goat cheese 2-oz goat milk 8-oz

Fishtuna 4-oz haddock 4-oz halibut 4-oz
cod 4 oz turbo/white 4-oz**Fowl**

turkey 4-oz

Fruitgrapefruit 2 apricot 10 mango 2
cranberry 8-oz plum/prune 10 strawberry 8-oz
kiwi 4 cantaloupe 1 honeydew 1
raspberry 8-oz date 15 quava 8 oz**Grains**buckwheat oats teff
rye**Meat**

venison/deer 3-oz lamb 3-oz

Miscellaneous

herb tea 16-oz spirulina 6 sea salt

Mollusks

clam 4-oz

Nuts and Seedschestnut 2-oz almond 2-oz pumpkin 2-oz
walnut 2-oz**Oils**walnut oil 1-T cod liver oil 1-T soybean oil 1-T
almond oil 1-T**Spices and Seasonings**oregano bay leaf sage
basil**Vegetables**broccoli 8-oz soy(fermented) 6-oz navy bean 8-oz
mung sprouts 8-oz asparagus 8-oz squash 8 oz
kidney bean 8-oz spinach 8-oz alfalfa sprouts 8-oz
radish 3-oz avocado 8-oz watercress 4-oz
beet 8 oz leek 4 oz

Thursday**Crustaceans**

lobster 4-oz

Fishsalmon/lox 4-oz swordfish 4-oz sole 4-oz
flounder 4-oz snapper anchovy**Fowl**egg-chicken 2 egg-duck 2 game fowl 4 oz
chicken 4 oz**Fruit**pear 4 blackberry 8-oz watermelon 8-oz
persimmon 8-oz pomegranate 6-oz pineapple 8-oz
tangerine 4 currant (dry) 2-oz apple 4
lemon 4 lime 4**Grains**barley amaranth rice(white)
corn**Meat**

beef 3-oz

Miscellaneous

sea salt miso(hatcho) 1-T

Mollusks

oyster 4-oz

Nuts and Seedspecan 2-oz hazelnut/filbert 2-oz pistachio 2-oz
flax 2 oz**Oils**

corn oil 1-T flax seed oil 1-T olive oil 1-T

Spices and Seasoningshorseradish thyme curry
mustard**Sugars**

sucanat 1-T

Vegetablessweet potato 12-oz lima bean 6-oz lettuce-iceberg 8-oz
green peas 8-oz cabbage 8-oz onion 6-oz
celery 8-oz olive 2-oz artichoke 8-oz
carrot 8-oz

Friday**Crustaceans**

shrimp 4-oz

Dairy

ghee 2-T sheep cheese 2-oz

Fishtrout 4-oz bass 4-oz pike
perch 4-oz catfish 4 oz**Fowl**

duck 4-oz goose 4-oz

Fruitgrapes 8-oz raisins 2-oz coconut 8-oz
peach 4 nectarine 4 banana 4
figs(dry) 2-oz cranberry 4-oz blueberry 8-oz
papaya 8-oz**Grains**millet triticale wheat
quinoa**Meat**

pork 3-oz rabbit 3-oz

Miscellaneousherb tea 16-oz tofu 5-oz sea salt
seaweed/kelp 1-oz**Mollusks**

scallops 4-oz

Nuts and Seedspeanut 2-oz pine 2-oz brazil 2-oz
sunflower 2-oz**Oils**peanut oil 1-T primrose oil 1-T safflower oil 1-T
sunflower oil 1-T**Spices and Seasonings**rosemary mace peppermint
garlic dill ginger**Sugars**

molassas 1-T

Vegetablesturnip 8-oz mushroom 4-oz cauliflower 6-oz
cucumber 8-oz sunflower sprouts 4-oz wheat sprout 6-oz
string bean 8-oz parsley 4-oz kohlrabi 8-oz
lentils(dry) 2-oz lettuce-red leaf 8-oz brussel sprouts 8-oz
kale 8 oz

Saturday**Crustaceans**

crab	4-oz
------	------

Dairy

goat cheese	2-oz	goat milk	8-oz
-------------	------	-----------	------

Fish

tuna	4-oz	haddock	4-oz	halibut	4-oz
cod	4-oz	turbot/white	4-oz		

Fowl

turkey	4-oz
--------	------

Fruit

grapefruit	2	apricot	10	mango	2
cranberry	8-oz	plum/prune	10	strawberry	8-oz
kiwi	4	cantaloupe	1	honeydew	1
raspberry	8-oz	date	15	quava	8-oz

Grains

buckwheat		oats		teff	
rye					

Meat

venison/deer	3-oz	lamb	3-oz
--------------	------	------	------

Miscellaneous

herb tea	16oz	spirulina	6	sea salt	
----------	------	-----------	---	----------	--

Mollusks

clam	4-oz
------	------

Nuts and Seeds

chestnut	2-oz	almond	2-oz	pumpkin	2-oz
----------	------	--------	------	---------	------

Oils

walnut oil	1-T	cod liver oil	1-T	soybean oil	1-T
almond oil	1-T				

Spices and Seasonings

oregano		bay leaf	
---------	--	----------	--

Vegetables

broccoli	8-oz	soy(fermented)	6-oz	beet	8-oz
mung sprouts	8-oz	asparagus	8-oz	squash	8-oz
kidney bean	8-oz	spinach	8-oz	alfalfa sprouts	8-oz
radish	3-oz	avocado	8-oz	watercress	4-oz

