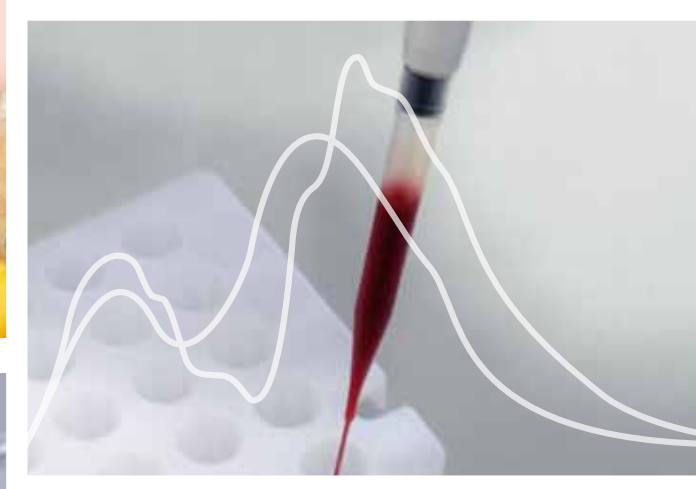
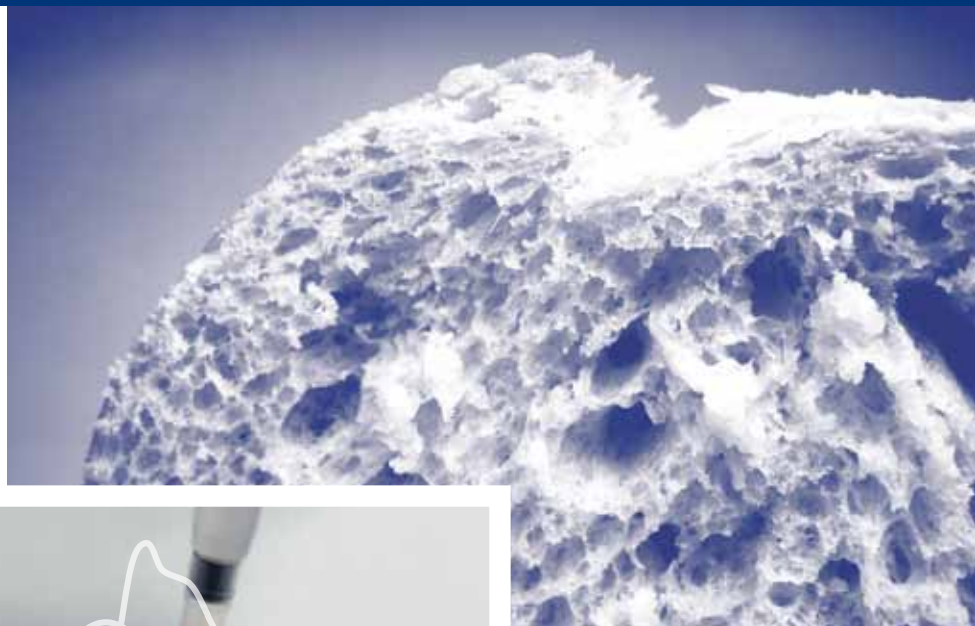


# Understanding Your ALCAT Test Results

Optimal Wellness through Customized Nutrition



## Why is it important to have The ALCAT Test?



Today in the industrialized world, we face vastly different threats to our health and well being than our grandparents and those who came before us. In past years, infection was the greatest cause of death. Today it is cancer, heart disease, diabetes and other degenerative diseases associated with aging.

Recent scientific discoveries have revealed increasingly deeper levels of understanding of how food interacts with our immune system affecting metabolism in ways that can be either beneficial or detrimental. Chronic activation of the immune system and the chronic inflammation that it produces is not only the common feature of modern diseases of aging, but also its major underlying cause.

The “wrong” food, although it may be “healthful” for most people, will induce inflammation. The immune system aims to damage the food, which it mistakes as a harmful invader, such as a bacteria, parasite or virus, but also ends up damaging our own body. Long-term exposure can even trigger auto-immunity, where the immune system actively attacks our own tissues and bodily structures.

It has been known for ages that food can be either the best medicine or a strong poison. The ancient Greeks like Hippocrates and Lucretius expressed this clearly in their writings which have been maintained, “Let thy food be thy medicine and thy medicine be thy food” and “One man’s meat is another man’s poison.”

The ALCAT Test can tell you which food is your ‘meat’ and which is your ‘poison’. It is not a substitute for medical care, but it can be extremely helpful if followed and incorporated into a healthy lifestyle and as an aid in disease prevention. If a medical condition exists, The ALCAT Test is helpful used in conjunction with the advice of a qualified health or medical practitioner. The following pages will give you the information that is required to do so.

To your health,

Roger Davis Deutsch-Owner/Founder, Cell Science Systems / ALCAT Laboratory

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Congratulations Packet!

**You have made a positive step towards improving your health with the ALCAT Food and Chemical Sensitivity Test. Now that you have utilized the most sophisticated laboratory technology to identify your sensitivities, you can begin to take a fresh look towards improving your health. Your ALCAT Test results will help you select an interesting and varied eating program based on foods that are compatible with your unique biochemical makeup. To gain the most benefit, study this booklet carefully. It contains information and advice on how to safely change your diet and lifestyle while still maintaining a balanced nutritional intake.**



## The Difference Between An IgE Food Allergy and An ALCAT Food Sensitivity (Food Intolerance) Test

An allergy is an IgE specific immune response to a food, chemical, mold or herb and can be life threatening. An IgE food allergy means even small amounts of a food are likely to trigger the immune system response which is called an allergic reaction. People with an IgE food allergy have an immune system which reacts to certain proteins found in food. Their immune system attacks the specific protein as if it were a harmful pathogen, such as a bacterium or virus. Signs and symptoms can vary and the patient may experience just a tingling in the mouth or a severe rash and have serious breathing difficulties, edema, (swelling of of the body, such as the throat, tongue and face). When an IgE allergic reaction is severe and life-threatening, it is known as anaphylaxis.

Food intolerances/sensitivities do not involve the specific immune system, but the innate immune system. Food intolerances/sensitivities cause chronic inflammatory process. Food intolerances/sensitivities, unlike IgE allergies, do not require exposure to a food to “prime” them. Intolerances manifest a wide variety of symptoms. Some may be gastrointestinal, fatigue, headaches, and “brain fog” --- feeling muddled in thought, migraines, arthritis, etc. Intolerances, however, do not cause immediate allergy symptoms. Some intolerances/sensitivities are reactions to chemicals added to foods for flavoring, coloring or preserving. Sometimes people with food intolerances/sensitivities can handle small amounts of the food they’re sensitive to. When it comes to an IgE food allergy, even a bit of the allergen is enough to trigger a reaction, therefore, people with IgE food allergies must avoid the foods they are allergic to completely.

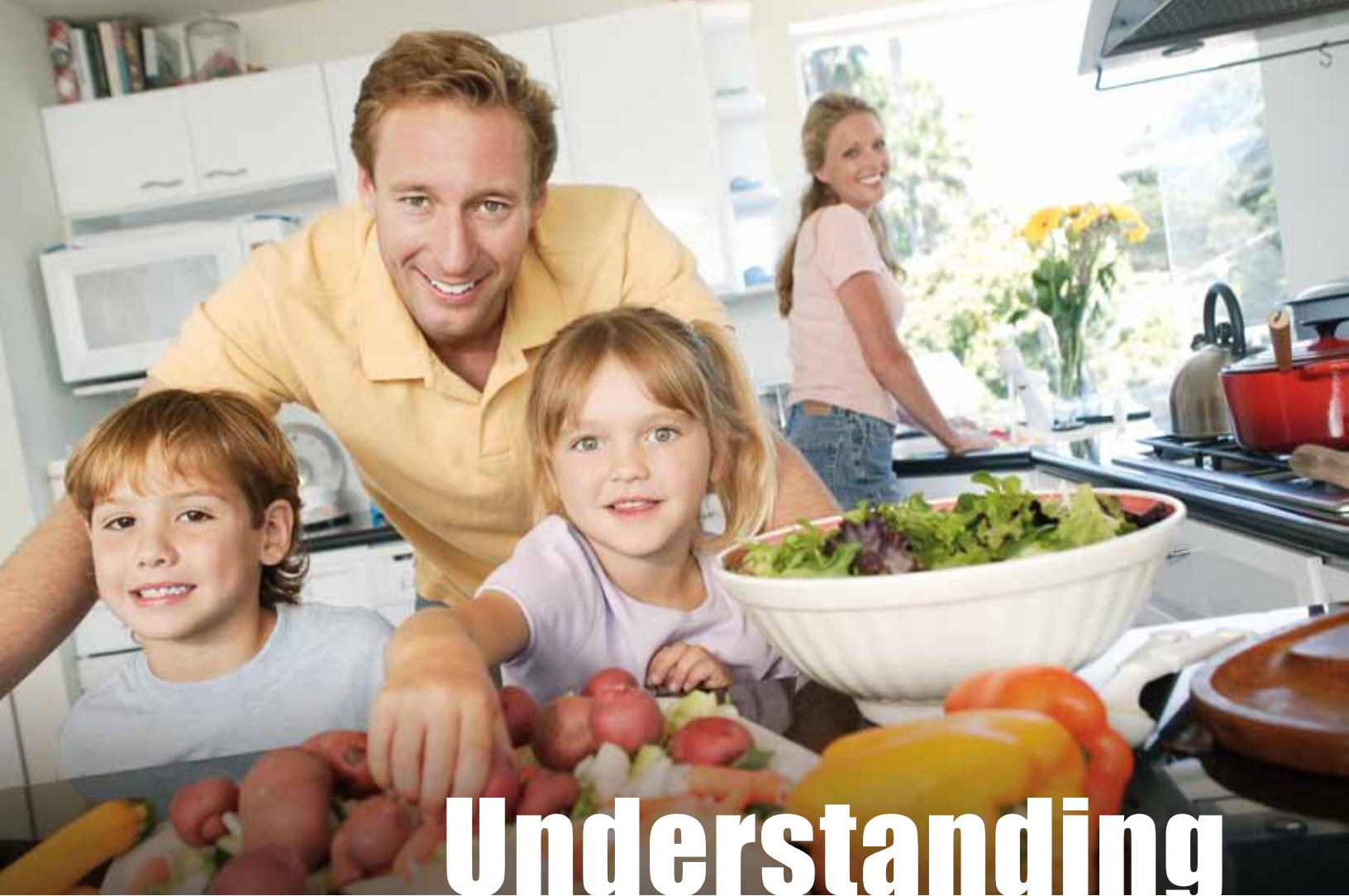
The ALCAT Test is a highly sensitive, objective test for assessing which foods, chemicals and herbs you may be intolerant or sensitive to. The ALCAT Test identifies food, chemical and herbal sensitivities where the symptom onset is longer (several hours to days) and varied (typical in chronic conditions). These types of sensitivities or intolerances affect nearly 80% of the population.

**The ALCAT Test will not identify immediate IgE food allergies. If you have immediate or IgE mediated food allergies please continue to avoid these items even if they appear on your green or “acceptable” foods list.**

If you have any doubt, or have any questions regarding IgE/classic food allergies, please consult with your physician who can assist in identifying these types of “true” food allergies. It is rare that foods cause this type of classic allergy, typically less than 5% of the population.

### Did You Know?

Food sensitivity/intolerances affect over 80% of the population while less than 5% of us actually have an IgE or “true” food allergy ...



# Understanding Your Test Results

Food sensitivity is not always a straightforward yes or no. There can be different degrees of sensitivity, which can be altered through change of eating habits, stress levels, medical conditions, nutritional status, hormone levels, medications, change of season and other factors that affect the body's immune system.

## Test Results: Four Distinct Areas

### Red

Foods listed indicate a severe reaction and should be strictly avoided at all costs for a minimum of 6 months.

### Orange

Foods listed indicate a moderate reaction should be strictly avoided for a minimum of 3 to 6 months.

### Yellow

Foods listed indicate a mild reaction should be avoided if possible, for 3 months, especially if there are few red and orange foods.

### Green

Foods listed indicate no reaction and can be eaten freely on a rotation basis, no more than every other day.

## Blue Boxes: Three Distinct Sections

### Box 1

Shows reactions (if any) to *Candida albicans*. The report will automatically remove sugars from the rotation meal plan and place them in this box, as they are known to exacerbate the *Candida* condition. Although you may not be intolerant to these foods it is recommended to avoid them due to their association with candidiasis, suggested by the *Candida* sensitivity. Please see additional notes on *Candida albicans* and consult with your health care provider.

### Box 2

Shows reactions (if any) to gluten/gliadin. The report will automatically remove grain products that contain the proteins gluten/gliadin, such as wheat, barley, malt, spelt and rye. Although you may not be intolerant to these grains it is advisable to avoid them because they contain gluten/gliadin. A positive gluten/gliadin reaction with a negative wheat, rye, oat etc. response can occur when the isolated proteins are tested in a more concentrated form. All gluten/gliadin containing grains should be eliminated for 3 months if mild reaction and 6 months for moderate or severe reaction. If oat appears in the gluten/gliadin box look for certified gluten-free oats and enjoy once every 4 days as oats do not contain gluten/gliadin but may be cross contaminated in manufacturing.

### Box 3

Shows reactions (if any) to casein or whey. The report will automatically remove dairy products containing casein or whey from the "acceptable" foods list. Although technically you may not be intolerant to the other products listed, it is advisable to avoid them as they contain the proteins found in casein or whey.

## Rotation Plan Guide

Now that the ALCAT Test has identified the foods to which you appear to be sensitive, you can begin the process of improving your health. In order to achieve this, it is very important to eliminate any foods and ingredients which the ALCAT Test has identified as sensitive. The idea of the rotation plan is to help you cope successfully and pleasantly with a restricted eating plan, so that you are well nourished and satisfied.

**To make this task easier we have provided a four-day rotation plan.**  
**You can move foods around as long as you keep a food diary.**  
**Guideline: asterisk food (mild intolerance) once every 4 days,**  
**acceptable foods (green column) can be used up to every other day.**



By eating foods one day and then omitting them for at least 3 days you avoid a cumulative sensitizing effect. This period of time allows the particular food molecules to 'clear' from your system so they do not cause an overload. This is the basic principle of the rotation plan.

## 8 Understanding Your Test Results

Starting with breakfast, go down the list selecting a food or foods from the different groups. How about a fruit salad with yogurt, or a baked potato on a cold morning? As you can see, your meals may change during the period of the diet! A very adequate lunch might be carrot and coriander soup followed by peppers stuffed with rice, sweet corn, cashew nuts, a dressed salad and a cup of chamomile tea? Pistachios (without red dye) make a good snack. Dinner might be baked trout sprinkled with ginger and garlic, a baked potato, cooked carrots, steamed artichoke hearts and a mango for dessert.

**If you use a food diary, you can move foods around. Staying within the guidelines, foods that show up in your mild column on your ALCAT Test results can be used once every 4 days and foods that are on your acceptable (green) column may be used every other day, but a 3 or 4 day rotation is best.**

Freeze or save any unused foods.. However, it is generally best to discard any uneaten cooked vegetables. They may become moldy and will lose most of their nutritional value upon storage.

Remember to rotate ... You do not have to eat everything listed under one day of your Rotation Meal Plan! You also do not need to limit any food to only a single consumption. If you want potatoes with breakfast, lunch and dinner that's fine. Attempt to avoid as much processed food, additives and preservatives as possible.

Even prepared foods like casseroles, spreads, loaves and soups may contain ingredients you should avoid. Eat simple, whole, identifiable foods, organic whenever available. Thoroughly wash all fruits and vegetables including organics. Keep an eye on food labels, especially if the packaging or price changes, because formulations can sometimes change without warning.

Healthy bodies cope much better with variety and intermittent challenges, than with unrelenting exposure to only a very few food types. If you are vulnerable and eat the same food repeatedly, you risk becoming sensitive to it at some point.

Symptoms may be masked initially because of your body's effort to adapt and can make you subtly dependent on the offending food. After some time the adaptation will be exhausted and you begin to experience obvious symptoms.

**Do not use the ALCAT Test Results in place of a medical check up or diagnosis. Do not assume all symptoms are food sensitivity related. If you have any symptoms please be sure to consult your doctor to rule out diseases. If you decide to eat an intolerant/sensitive food during the 12 to 24 week elimination period keep in mind, and that a reaction can occur.**



## Keeping a Food and Symptom Diary

If you have favorite foods listed on your rotation plan (on different days), you can use them when you keep a simple food diary. Write down all foods consumed on each day in your diary, also list any symptoms. Everyday look back at your food diary to ensure you have not chosen the same food too often.

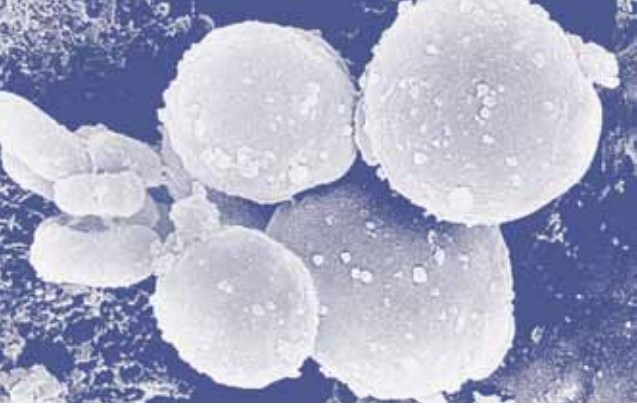
The ALCAT Test determines your food sensitivities using a pure extract of each item tested. Most foods, however, are not pure and come in prepared dishes and can be found in foods you wouldn't expect. It is important to read the ingredients labels carefully as recipes change and foods can be listed under several different names.

## Possible Side Effects of Detoxification

Each person will react differently to the new eating regime. The main goal for the first twelve weeks of the program is to achieve detoxification and healing. It is possible that at first you may not feel well. You may feel as though you are going through a withdrawal process. Symptoms may include a dull headache, joint pain, muscle aches, fatigue and sinus discomfort or even back pain.



These withdrawal symptoms may start as little as 12 hours after stopping the foods (particularly coffee or tea) can last a few days or in extreme cases they can last up to a few weeks. If any (or all) of these symptoms occur, we recommend that you increase your fluid intake: in severe cases an over the counter anti-inflammatory agent should alleviate those flu like symptoms.



# Box 1

## Candida Albicans

### Starve Candida

*The ALCAT Test does not diagnose Candida overgrowth.*

If your ALCAT Test indicates sensitivity to Candida you may find it helpful to restrict intake of:

#### Sugar

Restrict sweets, cakes, biscuits, pastries, canned foods and anything with added sucrose, fructose, glucose, dextrose, lactose, maltose, honey, molasses, maple sugar and cane sugar.

#### Alcohol

Avoid all alcoholic beverages. Instead concentrate on whole fresh foods, raw and lightly cooked.

### Stop the Over-Production of Yeast

If you would like to try a natural anti-yeast/anti-fungal treatment talk with your healthcare provider. Please make sure that the ingredients in the product are not listed in the Red, Orange or Yellow sections of your ALCAT Test results. There are a number of natural anti-fungal agents found in certain foods which can be used in conjunction with your anti Candida diet, such as:

#### Garlic

This is the simplest and in some ways the best. Eat it raw. If you do not like the taste, use small cloves and swallow them whole. Garlic acts against bacteria and viruses as well as against Candida in both its yeast and fungal forms.

#### Caprylic Acid

This is a very helpful natural anti yeast, anti fungal which is a fatty acid found in coconut oil.

#### Berberine

This is a natural anti-microbial agent. Berberine is found naturally in plants such as goldenseal.

#### Grapefruit Seed Extract

Many people find grapefruit seed extract an important part of their regime.

### Bitter Herbs

Traditional Chinese medicine uses these for anti-fungal effects.

Consult with your healthcare provider.

*Check your ALCAT Test results to see if any of the above should be avoided.*

### Replace Yeast

Approximately 3 weeks after avoiding the foods that feed Candida, we recommend you replace the natural balance of micro-organisms back into the body. There are a number of products helpful in this regard known as pre and probiotics that can assist in repopulating your digestive tract with friendly bacteria. Depending on your ALCAT Test results it may be necessary to get a dairy free probiotic.

**Contact your health care practitioner for any advice on choosing a good quality supplement and for complete instructions regarding a candida diet.**



## Box 2 Gluten/Gliadin

### What are Gluten and Gliadin?

*The ALCAT Test does not diagnose celiac disease.*

Gluten and gliadin are complex protein structures found in grains such as wheat, rye, malt, barley and spelt. The main benefit of gluten in the bread making industry is its glue-like property, which helps bread to rise, and create a light sponge structure.

Unfortunately it is the same glue-like property, which can result in problems for some individuals as gluten causes a reaction in the intestinal tract and can lead to digestive upsets or in some cases difficulty in nutrient absorption. It can also cause a potent and debilitating immune reaction in the gut. Wheat and spelt contains the greatest concentrations of gluten/gliadin. Wheat is such a popular grain in the western diet but if an individual is sensitive to gluten or gliadin they would also avoid the other grains mentioned below, as they contain gluten/gliadin.

When using the ALCAT Test to check for gluten/gliadin sensitivity, a concentration is used that is greater than that normally found in natural grains and foods. As such it is possible to react to gluten/gliadin and not to the grains themselves. This can be taken as an early warning so it may be prudent to omit gluten/gliadin grains in the diet to ease potential stress on body. In other cases, you may show a reaction to one or more of the grains, but not to gluten/gliadin. This can happen if you have no sensitivity to gluten/gliadin, but have sensitivity to another component of the grain. In that case you would only remove the offending grain.

Gluten and gliadin are extremely difficult to digest and may encourage the growth of undesirable bacteria or fungi in the intestinal tract, which may contribute to diarrhea, bloating, flatulence, constipation and irritable bowel syndrome. Someone suffering from such symptoms may feel tired, irritable, or depressed after consuming gluten/gliadin containing products. Avoidance and elimination of these products from the diet are recommended before these symptoms may be alleviated effectively.

**If you show a reaction to gluten/gliadin your test results will have taken out the gluten/gliadin containing grains from the green section. They are wheat, rye, barley, malt, kamut and spelt. Oats can be consumed if certified gluten free.**

However, gluten/gliadin may be found in many foods, not just the obvious ones like bread and pasta, but also manufactured foods to which wheat flour is added, for example sausages, sauces and many other products. Therefore, it is particularly important to be vigilant and read all ingredients to avoid the consumption of gluten/gliadin. It is often difficult adjusting to a gluten/gliadin-free diet, but a good first step is to reduce your consumption as this will help to reduce any overloading of the system while you improve the overall health of the digestive tract, within a few days move onto a totally gluten/gliadin free diet.

## Foods to Avoid if Sensitive to Gluten or Gliadin

### Wheat

Wheat flour, whole wheat, wheat gluten, wheat germ, wheat bran, whole wheat flour, bleached or unbleached flour, white or enriched flour, millers, bran, bulgur, pasta, and many prepared foods. Also avoid, MSG (Mono-Sodium Glutamate), puffed wheat, shredded wheat, soy sauce, triticale, wheat berries, all-purpose flour, bread products, crackers and cream of wheat. READ INGREDIENTS.

### Rye

Avoid rye bread and rye crackers, multi-grain breads, some granolas, gin, vodka and whiskey. READ INGREDIENTS.

### Barley & Malt

Malt is made from sprouted barley and from the hydrolyzed starch of other grains. This thick syrup is sweet in taste and is added to foods to improve taste. It can be dried into malt extract, a powder, and added to an array of food and beverages. Malt can be found in: ales, barley, corn, beer, breakfast cereals, canned and dried soup mixes, chocolate, caramel flavoring, caramel coloring, colas of all kinds, condiments, salad dressings, most canned prepared foods (T.V. dinners), lagers, malted milk, Ovaltine, processed meats, bourbon and whisky. Barley is a grain that may be found in soups and stews. It may be added to bread and a flour is available. READ INGREDIENTS.

### Oat (unless certified gluten-free)

Avoid oat bran; oat flour; porridge and oatmeal (an ingredient in haggis, oat cakes and the whisky drink Athol Brose), oat gum (used to prolong the shelf life of sweets, cream and butter, and used as a thickener and stabilizer in cream cheese and cheese spreads) roasted ranch oats and whole oats. READ INGREDIENTS.

To supplement a gluten/gliadin-free diet the following foods may be eaten if shown to be non-reactive: millet, quinoa, corn, buckwheat, rice, fruit, vegetables, meat, poultry, fish, beans, eggs, cheese, milk, nuts, soya, lentils, wild rice, sorghum, amaranth and tapioca (yucca, casava root). READ INGREDIENTS.



## Box 3 Casein/Whey

### What is Casein/Whey?

Casein and whey are proteins found in cow, goat and sheep milk products. They should not however be confused with lactose “milk sugar”, as these proteins are quite different. Most people who have difficulty digesting milk are lactose intolerant, meaning that they produce too little of the enzyme lactase that breaks down milk sugar so bacteria flourish in their gut to finish the job. This is a different problem than reacting to the proteins casein and whey. The ALCAT Test may show a non-reactive result to milk and/or casein/whey in lactose intolerant patients. This disorder is due to a deficiency in the enzyme lactase, rather than specifically sensitivity to dairy products.

The ALCAT Test may show a positive reaction to cow or goat milk but a negative reaction to casein or whey.

About 75% of the proteins in milk can be classified casein's, which form a group of approximately 4 types of proteins. Whey contains approximately 7- 8% proteins. Interestingly, body builders, weightlifters etc., often use whey as a food supplement since the whey protein is high. If whey protein is used, look for a 100% cold pressed, isolate whey protein powder.

Casein/whey used in the ALCAT Test is more concentrated than that which is found naturally in foods such as cheese, yogurt and milk products. This is why these foods may appear un-reactive, while the concentrated casein/whey is reactive. (It is also worth noting that there is less casein in skimmed milk than in low fat or whole milk.) Casein is also used to fortify processed cheese, breads and cereals in addition to clarifying white wines and preserving against oxidation.

### Casein Related Products

Many commercially produced products contain casein in some form and it is important to check all labels. Some casein containing ingredients are listed below:

- Milk solids ("curds")
- Whey (unless 100% cold-pressed isolate whey protein powder)
- Casein (sodium caseinate, most commonly)
- Lactalbumin and other names that begin with lact, as these may still have some casein associated with them.
- Galactose and glucose (lactose by-products) Most people with milk allergies will have no trouble with galactose, but you should be aware that it might cause problems in some people.
- "Natural ingredients". Some of these may contain dairy products or by-products. Call or email the manufacturer for further information.

Additional foods to avoid if sensitive to casein or whey: cow products, goat and sheep products (such as milk butter, ice cream cheeses, yogurt and kefir) and any manufactured product containing the above.

Be alert when obtaining the following, as milk products can be present in: margarine, hydrolyzed vegetable protein (for the severely sensitive person) since the processing phase may utilize casein or whey, bread and "non-dairy" products (non-dairy does not mean milk-free). It is a term that is often used to indicate less than ½ percent milk by weight, and therefore can still contain significant amounts of casein. The term non-dairy is not regulated by the US Food and Drug Administration, but, ingredients lists and allergen warnings are. ALWAYS READY LABELS.

To supplement a casein or whey free diet the following foods may be eaten if shown to be non-reactive: rice milk, almond milk, coconut milk, oat milk, hazel nut milk, soy milk or soy butter, tofu, ghee, fruit juices, calcium rich foods such as broccoli, sardines, salmon and nuts.



# General Food & Nutritional Guidelines

## What is a Balanced Diet?

A balanced diet is one that provides a balanced level of macronutrients and micronutrients. It not only includes the essential nutrient groups as listed below, but also sufficient protein, carbohydrate, fat and water to maintain health and well being.

In your ALCAT Test results you will receive guidance on your rotation plan to either eliminate or reduce your mildly reactive foods and maintain a balanced daily intake of food.

## Essential Micronutrients Groups – Vitamins, Minerals and Essential Fatty Acids

Vitamins are complex substances needed in small amounts by the body for normal functioning. There is a vast range of vitamins, found in varying amounts in different foods.

### Vitamin A

Vitamin A plays essential roles in vision, growth, and development; the development and maintenance of healthy skin, hair, and mucous membranes; immune functions; and reproduction. Vitamin A can be found in sweet potato, carrots, mango, turnip, spinach, red bell pepper, apricot, milk, eggs, etc.

### Vitamin B

The B vitamins – collectively known as B complex – promote healthy nerves, skin, eyes, hair, liver, gastrointestinal tract, and brain function. The B vitamins are also coenzymes involved in energy production. Vitamin B comes from a number of natural sources, including potatoes, bananas, lentils, chili peppers, turkey, tuna, etc. Nutritional yeast (or brewer's yeast) is an especially good source of Vitamin B.

### Vitamin C

Vitamin C is required for the growth and repair of tissues in all parts of your body. It is necessary to form collagen, an important protein used to make skin, scar tissue, tendons, ligaments, and blood vessels. Vitamin C is essential for the healing of wounds, and for the repair and maintenance of cartilage, bones, and teeth. Vitamin C is also one of many antioxidants. Foods that tend to be the highest sources of vitamin C include green peppers, citrus fruits and juices, strawberries, tomatoes, broccoli, turnip greens and other leafy greens, sweet and white potatoes, cantaloupe, etc.

### Vitamin D

Vitamin D helps the body absorb calcium. In addition to helping the body absorb calcium, vitamin D also helps the body keep the right amount of calcium and phosphorus in the blood. Vitamin D is found in the following foods: dairy products like cheese, butter, cream, fortified milk (all milk in the U.S. is fortified with vitamin D), fish, oysters, fortified cereals, margarine, etc.

### Vitamin E

Vitamin E is an antioxidant vitamin involved in the metabolism of all cells. It protects vitamin A and Essential Fatty Acids from oxidation in the body cells and prevents breakdown of body tissues. Vitamin E is found in the following foods: wheat germ, corn, nuts, seeds, olives, spinach and other green leafy vegetables, asparagus and vegetable oils -- corn, sunflower, soybean, cottonseed, etc.

### Vitamin K

Vitamin K is found in green leafy vegetables like spinach, broccoli, asparagus, watercress, cabbage, cauliflower, green peas, beans, olives, canola, soybeans, meat, cereals, dairy products, etc. Cooking does not remove significant amounts of vitamin K from these foods. People who eat a balanced diet including these foods are likely ingesting enough vitamin K and do not require supplementation.



### Minerals

Whereas vitamins are organic substances (made by plants or animals), minerals are inorganic elements that come from the soil and water and are absorbed by plants or eaten by animals. Your body needs larger amounts of some minerals, such as calcium, to grow and stay healthy. Other minerals like chromium, copper, iodine, iron, selenium, and zinc are called trace minerals because you only need very small amounts of them each day. Consult your healthcare provider.

### Essential Fatty Acids

Essential fatty acids (EFA) are necessary for the formation of healthy cell membranes as well as the proper development and functioning of the brain and nervous system. Almost all the polyunsaturated fat in the human diet is from EFA. Some of the food sources of omega-3 and omega-6 fatty acids are fish and shellfish, flaxseed (linseed), soya oil, canola (rapeseed) oil, hemp oil, pumpkin seeds, sunflower seeds, leafy vegetables and walnuts. Consult your healthcare provider.

### General Advice to Improve Your Diet



It is important that you maintain a varied diet based upon the foods you are not sensitive to. Wherever feasible eat fresh whole foods, organic if possible. Attempt to avoid processed foods such as those found in bottles, tins, jars, and packaged goods. Be aware that manufacturers of processed foods do not always label every ingredient and source because they can contain many different foods grouped together. You may find it much easier to base your diet on simple whole foods. The following points can dramatically improve your health and metabolism:

- It is recommended that you drink at least 8 glasses of water daily. This should be filtered or bottled (preferably in glass) to limit the intake of chlorides and other additives in tap water.
- Avoid alcohol as it can contribute to leaky gut syndrome. This may allow particles of food to pass straight through the intestinal membrane, which is one of the major factors linked to food intolerance.
- Avoid adding salt to your food. Fresh food naturally contains enough salt for your nutritional requirements.
- Eat slowly, chew food well, and eat as much raw food as possible. Raw foods contain enzymes that begin assisting in digestion as soon as chewing begins. Don't eat on the run.
- Keep active. A healthy lifestyle even if based on only a little exercise each day will help improve your whole outlook and state of well-being, whereas boredom can lead to comfort eating.
- Learn what foods are on your green list and make sure you have a good supply of those fresh foods available at all times.
- Try not to sit down to a late evening meal, especially a high fat or carbohydrate dish as you may find it hard to

digest the food, which can affect your sleeping patterns.

### Preparation of Food

An often-overlooked aspect of food preparation is the use of any oils in cooking. It is important to remember that if you are using oil to cook with, it must be derived from foods on your green list. Be aware some cooking oils have extra ingredients that may be listed on the label. If preparing a meal for other people it is important to cook any foods you are intolerant to separately, so that your meal is not contaminated in any way.

### How Cooking Affects Nutrients

Cooking food may destroy essential vitamins and enzymes. It is therefore helpful to incorporate some raw foods and lightly cooked foods into your diet. When you are cooking, choose methods such as steaming or stir-frying for vegetables, which help to maintain the nutrient content.

Whenever possible, use any water that has been used for cooking organic vegetables for soups, casseroles and gravies as well as drinking as a vegetable juice in order to retain as many nutrients as possible. Using this liquid will reduce the loss of water-soluble vitamins such as those of the B vitamin family and vitamin C as well as many minerals. Fat-soluble vitamins such as vitamins A, D, E and K can be lost through cooking in oil. Be aware that prolonged heat can also affect the nutritional content of foods.

### How Preserving Affects Nutrients

Freezing is the best method of storing food; frozen foods should be kept below  $-18^{\circ}\text{C}$  ( $0^{\circ}\text{F}$ ) until required for use. Foods that are processed for storage in tins/cans or glass jars lose nutrients such as thiamin, folic acid and vitamin C as a result of the heat treatment. Other nutrients may be lost if a glass jar is stored in daylight. Finally, to achieve the least nutrient loss dried foods should be stored in sealed containers to exclude both oxygen and light.

### Foods and Their Derivatives

Some of the foods tested have pure derivatives, which can also be eaten. Examples such as wheat include not only plain and self-raising flour but also 100% durum wheat pasta; couscous, shredded wheat and puffed wheat. These are all 100% pure wheat products and as such all sources of wheat may be added to the diet to increase food choice and variety. Remember to read labels of packaged foods to ensure that all ingredients are on the green list of your result guide.



### Re-introducing Foods into Your Diet

For the first 3 months following elimination, you will be more sensitive, not less. Within the first week you may have withdrawal/detox symptoms, which can disappear quickly. Many people continue to stay close to the Rotation Plan even after reintroducing foods, because they find rotating a better way of eating. Others find it too difficult to rotate because of very busy lives or, their inability to always be in control of their food selections.

3 months should be a minimum time to stay on the plan – longer if you were moderate or severely reactive.

Always reintroduce foods one at a time every 4 days and list it on your food diary. The best time to re-challenge a suspected or known allergic food is first thing in the morning on an empty stomach and only if you are symptom-free. Always test with a very pure form of the food, organic if available.

Wait a minimum of 4 days before reintroducing a different food. If you react, omit the food for another 3 weeks before re-challenging. If you do not react, place the food on your rotation plan. Remember if you have reacted strongly to a certain food in the past you may not be able to reintroduce that item into your diet. We recommend repeating the ALCAT Test 9-12 months and only after foods have been rotated back into your diet.

**If you have many sensitivities or food dislikes, you may need nutritional supplementation to meet your nutritional needs. Please consult with your physician or a nutritionist.**



# Frequently Asked Questions

# FAQ

## What do the Red, Orange, Yellow and Green Colors Indicate?

The ALCAT Test diagnostic system is designed to electronically measure changes in cell size and volume when your blood is incubated with the test substances. These measurements are plotted on a graph and compared to a “Master Graph”. The Master Graph is a chart plotted from the measurements obtained when a sample of your blood is treated identically but without being exposed to the test substances. The degree of difference between the cell size and volume of the sample incubated with the test substance, in comparison to the control, determines the range of reactivity.

- Green: Foods and substances in the green range are considered “safe” unless you have had an immediate, IgE immunological reaction to any of them. For example, if you have ever tested positive on a skin test, an IgE RAST test, or after eating had an immediate reaction to a particular food or foods listed as negative on your ALCAT Test, you need to avoid those foods and substances.

- If you have not had a skin test or an IgE RAST test but have suffered a reaction (either within minutes or up to 4 hours after contact and may involve your skin, respiratory or gastrointestinal tract), you may have a classic IgE allergy to that food or substance. Avoid that food or substance even if The ALCAT Test result is negative.
- Yellow: Foods/substances in the yellow range are a mild reaction and did not react to a significant degree. However they did react and you may indeed experience symptoms, especially if consumed/contacted frequently. You may be asked to avoid these foods for 3 months or eat on a 4-day rotation.
- Orange: Foods/Substances in the orange area showed a moderate reaction and should be avoided for 3-6 months.
- Red: Foods/Substances in the red area showed a severe reaction and should be avoided 6 months.

### I know I am Allergic to an Item – Why is it Green (Negative) on My ALCAT Test Results?

As described previously, your reaction may be related to a specific immune system reaction (immunoglobulin) called IgE. This is not measured by the ALCAT Test. IgE reactions are usually apparent because they occur within a short time (usually within 4 hours or less) and the symptoms are dramatic and classic.

**If your reaction fits this description it is a classic allergy, you should avoid the food/substance. Do not re-challenge until you consult with your healthcare provider.**

If you tested positive on a previous ALCAT Test, eliminated the item(s) for several months, re-introduced the food and are now testing negative you have most likely lost your sensitivity to that item. It is believed that using a rotation plan may help prevent re-sensitization. Scientific studies comparing the ALCAT Test results to the Gold Standard, Double Blind Oral Challenge, show the ALCAT Test to be 83.4% accurate with a small possibility of false negatives.

### How Can I be Sensitive to This, I don't Even Eat it or Like it?

Eating or liking a particular food is certainly not a requirement for being sensitive to it! The wonderful human body perhaps has its own wisdom which guides you away from that which may do harm! It is even possible that genes dictate reactivity to a certain degree. Overexposure of food, gut dysfunction, genetics and stress are several factors that may play a role in reactivity.

### Do I Really Have to Follow the Rotation Plan or Can I Just Eliminate the Foods I React to?

Dr. Herbert J. Rinkel developed the Rotary Diversified Diet (Rotation) in 1934. People prone to or with food/chemical sensitivities find this diet beneficial for a number of reasons:

- It may lessen the likelihood of developing new sensitivities.
- It allows the immune system to recover from the effects of a food before it is again consumed.
- It may help identify other undiagnosed food sensitivities.
- A 4 day rotation plan allows the body to go through its processes; digestion, metabolizing and elimination.

If you find the Rotation just too stressful, it may do more harm than good to attempt to follow it. Then you are limited to the foods listed in the green section. Occasionally, you may find yourself in a social situation (or perhaps when traveling) where you are not always able to follow the plan closely. In such situations continue to try to avoid your sensitivities and return to your rotation plan as soon as possible.



### Can I Have One Type of Food All Week Long?

Even if you dislike tea, water and orange juice but you love coffee it is not wise to drink the coffee daily. Even if your test was negative to coffee you could develop a sensitivity to it. Even a non-allergic person should strive for the most variety possible in the diet. No single food contains all the nutrients we need. The greater variety, the greater the opportunities to obtain many different nutrients, even ones we may not know exist yet! Many of our foods often contain pesticides, herbicides and hormones. Consumption on a regular basis of any food may have detrimental effects due to overdose of any of these substances. Eat organic whenever possible. Eating an acceptable food two days in a row if need be, is not cause for concern. Eating it 4 or 5 days in a row or every day might be.

### May I Eat Something on Rotation I Was Not Tested For?

If you were not tested for a particular food(s), there is no way to know whether or not you will react if you eat them. We suggest that you follow your Rotation Plan for acceptable food choices only. **It is suggested any food not tested should not be eaten.**

### How Long do I Stop Eating These Foods and When Do I Re-challenge and In What Order?

It is believed that once an offending food is removed from the diet, the body becomes hypersensitive to that food for about 3 months. For example, let's say you are red or orange sensitive to carrots and omit them. However, after you happen to eat carrots...You may have an exaggerated set of symptoms that were never present when you ate carrots in the past. After the 3 months, this hypersensitivity is thought to decline. Therefore, a 3 to 6 month period of elimination is most often recommended.

**Caution: This reaction can be dramatic. We strongly suggest you discuss the re-challenge procedure with your health care practitioner.**



### Why are Chemicals/Additives Not Included in the Rotation Plan?

Ideally, only whole unprocessed, additive and chemical free foods should be consumed on the rotation diet. Practically, this is not always possible. Therefore, you should at try to refrain from ingesting or coming into contact with the same additives or chemicals if your test showed sensitivity.

### How do Vegetarians Get Adequate Protein?

Sometimes deriving adequate protein on a daily basis can be difficult for a vegetarian with food sensitivities. Depending upon the degree of your conviction, in order to achieve optimal results (meaning improvement in your health) it may be necessary to broaden your intake of protein foods. Look at all your options beans, legumes, nuts and protein powders. Perhaps you might consider eating eggs or dairy (if you are not already an ovo-vegetarian). This may only be necessary on a temporary (at least 3 months) basis. Contact a nutritionist or dietitian that will be able to advise you on maintaining a balanced diet.



### Can I Use a Nutritional Supplement if it is a Derivative of a Reactive Food?

Read all labels carefully. If you are sensitive to corn, be aware that it is the source for a lot of the vitamin C on the market. Vitamin E is often obtained from wheat germ oil or soy. Gelatin capsules are made from beef and/or pork. These are just a few examples. Be sure to check the source of all your supplements. You may have to call or email the manufacturer.

**READ ALL LABELS**





# Reference Descriptions



**Food Additives & Food Colorings**



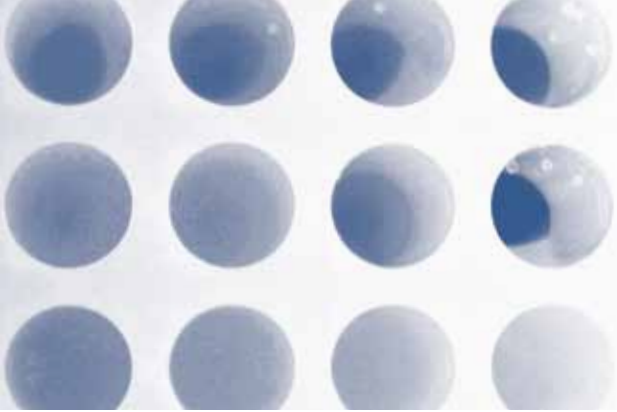
**Molds**



**Environmental Chemicals**



**Functional Foods & Medicinal Herbs**



# Reference Description

# Food Additives & Food Colorings

## Aspartame

No calorie artificial sweetener aspartame, which is sold under the brand name NutraSweet or Equal in the United States and is used in more than 6,000 products. Aspartame may change levels of chemicals in the brain that affect behavior. May also cause headaches/migraines, dizziness, seizures, nausea, numbness, muscle spasms, weight gain, rashes, depression, fatigue, irritability, tachycardia, insomnia, vision problems, hearing loss, heart palpitations, breathing difficulties, anxiety attacks, slurred speech, loss of taste, tinnitus, vertigo, memory loss and joint pain.

## Benzoic Acid

A white, crystalline organic compound belonging to the family of carboxylic acids, widely used as a food preservative and in the manufacture of various cosmetics, dyes, plastics and insect repellents. It can cause temporary distress through gastrointestinal irritation.

## Blue # 1

[Patent Blue] This blue dye is a derivative of coal-tar and it is used in bottled soft drinks, ice cream, ices, dry drink powders, candy, baked products, cereals, and puddings. It is also found in face powders, other cosmetics and hair colorings. This dye has been a suspect of many allergic reactions.

## Blue # 2

[Indigo Carmine] This is a dark-blue powder which is a derivative of coal-tar. This dye is used in such food products as bottled soft drinks, bakery goods, cereals, candy, confections and dry drink powders. It is also employed in mint-flavored jelly and frozen desserts. It is recognized as a sensitizer in allergic patients.

## Butylated hydroxyanisole (BHA) / Butylated hydroxytoluene (BHT)

Butylated hydroxyanisole (BHA) and the related compound butylated hydroxytoluene (BHT) are phenolic compounds that are often added to foods to preserve fats. BHA is generally used to keep fats from becoming rancid. BHA is found in butter, meats, cereals, chewing gum, baked goods, snack foods, dehydrated potatoes, and beer. It is also found in animal feed, food packaging, cosmetics, rubber products, and petroleum products. BHT also prevents oxidative rancidity of fats. It is used to preserve food odor, color, and flavor. Many packaging materials incorporate BHT. It is also added directly to shortening, cereals, and other foods containing fats and oils.

### Erythritol

Erythritol is a naturally-derived sugar substitute that looks and tastes very much like sugar, yet has almost no calories. It comes in granulated and powdered forms. Erythritol is a sugar alcohol similar to xylitol. Just like other sugar alcohols, erythritol is known to cause problems with the digestive tract. Sugar-free gum, diet foods, low-carb foods, food items for diabetics and stevia sweeteners contain erythritol

### Green # 3

[Fast Green] This dye is used in foods, drug, and cosmetics (except in products which are used in the area around the eye). It is used in coloring in mint-flavored jelly, frozen desserts, gelatin desserts, candy, confections, baked goods and cereals. Green # 3 has been a suspect as a sensitizer in allergic patients.

### MSG

Monosodium glutamate (MSG) is used as a flavor enhancer in a variety of foods prepared at home, in restaurants and by food processors. Its use has become controversial in the past 30 years because of reports of adverse reactions in people who have eaten foods that contain MSG. Research on the role of glutamate – a group of chemicals that includes MSG – in the nervous system also has raised questions about the chemical's safety.

### Polysorbate 80

Commercially also known as Tween® 80, it is a nonionic detergent and emulsifier derived from polyoxylated sorbitol and oleic acid, which is often used in foods. Polysorbate 80 is often used in ice cream to prevent milk proteins from completely coating the fat droplets. This allows them to join together in chains and nets, to hold air in the mixture, and provide a firmer texture, holding its shape as the ice cream melts. Polysorbate 80 is also used in commercial pickle products.

### Potassium Nitrite

Used as a food additive, also is used as a preservative in a manner similar to that of sodium nitrite. Potassium nitrite is a strong oxidizer and contact with skin or clothing, as well as inhalation and ingestion, should be avoided. Potassium nitrite is also used in the manufacturing of heat transfer salts.

### Red # 1

[Crystal Ponceau] This dye is used in dyeing wool. It may be used in foods, drugs, and cosmetics; as a special note, it has been de-listed by the FDA from further production in foods, drugs or cosmetics.

### Red #40

[Allura Red] In the United States, Allura Red AC is approved by the Food and Drug Administration for use in cosmetics, drugs and food. It is used in some tattoo inks and is used in many products, such as orange soda.

### Saccharine

Saccharine is typically used as a sweetener in low calorie soft drinks, dietetic ice cream, and other low calorie foods. saccharine is best known in the pink packet form of Sweet 'N Low.

### Sodium Sulfite

Used as a preservative for dried fruit and added to wine. Also used for reducing chlorine levels in pools. It can cause a decrease in vitamin B1 or destruction of thiamine in the body and can cause asthmatic reactions.

### Sorbic Acid

Its mineral salts, such as sodium sorbate, potassium sorbate and calcium sorbate, are antimicrobial agents often used as preservatives in food and drinks to prevent the growth of mold, yeast and fungi.

### Sucralose

Sucralose is a calorie free sweetener which can be used in place of sugar. Sucralose is made by adding chlorine to the sugar molecule during the manufacturing process which alters the sugar molecule to create a calorie free sweetener. Sucralose can be found in more than 4,500 food and beverage products, such as candy, soft-drinks and breakfast bars.

### Yellow # 5

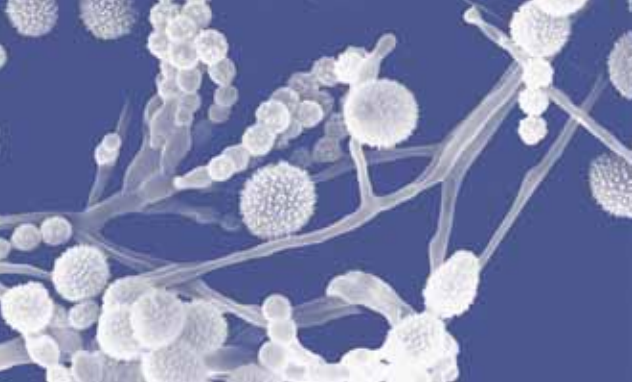
[Tartrazine] The most widely used color additives in foods (candy, desserts, cereals, soft drinks and dairy products), drugs and cosmetics. Tartrazine appears to cause the most allergic and intolerance reactions of all the azo dyes, particularly amongst those with an aspirin intolerance and asthmatics. Reactions can include anxiety, migraine, clinical depression, blurred vision, itching, rhinitis, urticaria, general weakness, palpitations and sleep disturbance.

### Yellow # 6

[Sunset Yellow] It may be found in orange squash, orange jelly, marzipan, swiss roll, apricot jam, citrus marmalade, lemon curd, sweets, hot chocolate mix and packet soups, trifle mix, bread crumbs and cheese sauce mix and soft drinks. It appears to cause allergic or intolerance reactions, particularly amongst those with aspirin intolerance. Other reactions can include gastric upset, diarrhea, vomiting, a rash similar to nettle rash and skin swelling.

### Xylitol

Xylitol is a sugar alcohol chemically extracted from the fibers of fruits and vegetables. The side effects from over consumption of xylitol, a low-calorie sweetener and alternative to sugar, include gas, diarrhea and low blood sugar. Frequently used in cooking and baking.



# Reference Description

## Molds

### Alternaria

Often found in carpets, textiles and on horizontal surfaces in building interiors. Often found on window frames. Outdoors it may be isolated from samples of soil, seeds and plants. It is commonly found in outdoor samples.

### Aspergillus

Comes in many varieties (species). Many of the varieties produce toxic substances. It may be associated with symptoms such as sinusitis, allergic bronchiopulmonary aspergillosis and other allergic symptoms. Inhalation of conidia and mycelium of aspergillus can lead to several diseases, the severity of which depends on the host's immune response. It is found in soils, leaf, and plant litter, decaying vegetable and roots, bird droppings, tobacco and stored sweet potatoes.

### Botrytis

This world wide mold predominantly occurs in humid and sub tropical regions. It is seen as the gray mold on cabbage, red clover, lettuce, sugar beet, beans, barley, wheat, onion and tomato. It is especially seen in connection with soft fruits like strawberries and grapes. In the wine industry, the growth of botrytis on wine grapes has been known to give an added effect to the bouquet of certain wines.

### Candida Albicans

Is a yeast infestation, from a parasite that thrives in warm-blooded animals. In the allopathic world of medicine it is referred as a fungus. This fungus can cause thrush and vaginal infections and spread to any part of the body that is weakened. We all have intestinal Candida and when in balance it helps maintain and aid our immune system by controlling the unfriendly organisms. However, Candida albicans takes advantage of circumstances in the body. This single cell fungi multiplies and develops toxins, which circulate in the blood stream and may cause an array of maladies.

### Cephalosporium

Is a mold found in decomposing vegetation and soil. It is also found in dust from textile plants, soil when gardening, bathrooms, and damp old houses. A gray/green color, it is also occasionally found in patients sensitive to Candida albicans.

### Cladosporium

This is a mold which is found most commonly on dying or dead plant substrates, especially on leaves and stems of ferns, mosses, desert and aquatic plants. It is found in various soil types and on food items such as cereals, cucumbers, tomatoes and peaches. It has also been found in fuel tanks, face creams, paints and textiles.

### Curvularia Specifera

This mold is dark brown in color with a velvety appearance. It is allergenic and can be found in interior building materials, soil, castor beans, cotton, rice, barley, wheat and corn. It seems to thrive well in most tropical countries. It may cause hay fever, asthma and fungal sinusitis.

### Epicoccum Nigrum

[Epicoccum purpurascens] is a saprophyte of worldwide distribution. It is a very common invader of many different plant types, also infecting seeds from barley, oats, wheat and corn. Moldy paper discoloration is frequently caused by Epicoccu.

### Fusarium

Is a large genus of filamentous fungi widely distributed in soil and in association with plants. Most species are harmless saprobes and are relatively abundant members of the soil microbial community. Some species produce toxins in cereal crops that can affect human and animal health if it enters the food chain.

### Helminthosporium

This mold occurs seasonally and spores are released on dry, hot days. It is a parasite of cereals and grasses. Frequently found on grains, grasses, sugar cane, soil and textiles.

### Hormodendrum

[Cladosporium] Most commonly identified outdoor fungus. The outdoor numbers are reduced in the winter. The numbers are often high in the summer. Often found indoors in numbers less than outdoor numbers. It is a common allergen. Indoor Cladosporium may be different than the species identified outdoors. It is commonly found on the surface of fiberglass duct liners in the interior of supply ducts. A wide variety of plants are food sources for this fungus. It is found on dead plants, woody plants, food, straw, soil, paint and textiles.

### Monilia Sitophila

This mold grows on contaminated milling and baking equipment, and may be found in stale breads and other grains. Occasionally, it can become airborne with other dusts and molds.

### Mucor Racemosus

This mold has worldwide distribution and is primarily a soil fungus but has been found in horse manure, plant remains, grains, vegetables and nuts. In the tropics it is found at higher altitudes and often seen on soft fruit, fruit juice and marmalade.

### Penicillium

It has a fruity odor, suggesting apples or pineapples. It is found in the soil of citrus plantations and has been isolated from decaying cabbage and barley plants, stored seeds of cereals, grapes, nuts, dried fruits and fruit juices. It is one of the most

dominant and important house molds; the indoor mold can be readily seen on stale bread, citrus fruits and apples. It is frequently found in wine cellars. It is the source of several antibiotics significantly penicillin.

#### Phoma Herbarum

This mold is commonly found in different soils, dead plant tissues and potatoes. It grows indoors in association with bio deterioration of wall paints, and produces pink or purple colored spots. This mold has also been isolated from moldy shower curtains.

#### Pullularia

[Aureobasidium] This yeast-like fungus is commonly found on caulk or damp window frames in bathrooms. Pullularia may be pink or black in color. Although it seldom causes infections, it can be allergenic. This is one type of mold that is a type of mildew. It will grow in cooler climates and along with cladosporium is commonly found growing on siding.

#### Rhizopus Nigrican

Frequently found in house dust, soil, fruits, nuts and seeds. Rhizopus often grows in fruit and vegetable garbage, or in forgotten leftover food. Exposure to large numbers of rhizopus spores has reportedly caused respiratory complications. Rhizopus can be an allergen and opportunistic pathogen for immune-compromised individuals, especially those with diabetic ketoacidosis, malnutrition, severe burns, or in some cases, the common cold.

#### [Rhodotorula

Rubra] Reddish yeast typically found in moist environments such as carpeting, cooling coils and drain pans. In some countries it is the most common yeast genus identified in indoor air. This yeast has been reported to be allergenic. Positive skin tests have been reported. It has colonized terminally ill patients.

#### Spondylocladium

This is a mold that is found in moist and damp environment. They are found on plants and around window sills and air conditioning ducts. They are indoors and outdoors.

#### Trichoderma

Is commonly found in soil, dead trees, pine needles, paper and unglazed ceramics. It often will grow on other fungi. It produces antibiotics that are toxic to humans. It has been reported to be allergenic. It readily degrades cellulose.



# Reference Description

# Environmental

# Chemicals

## Ammonium Chloride

Uses include a feed supplement for cattle, in hair shampoo, in textile printing, in the glue that bonds plywood, as an ingredient in nutritive media for yeast, in cleaning products, and as cough medicine. It is the active ingredient in many antiperspirants, usually used in aerosol antiperspirants.

## Benzene

Is a colorless and flammable liquid with a sweet smell and a relatively high melting point. It is carcinogenic and its use as additive in gasoline is now limited, but it is an important industrial solvent and precursor in the production of drugs, plastics, synthetic rubber, and dyes. May cause drunken behavior, light headaches, disorientation, fatigue and loss of appetite.

## Chlorine

Drinking water, bleach, and disinfectants contain chlorine. It induces pain and inflammation of mouth, throat, and stomach. It can also cause confusion, delirium, respiratory tract irritation, pulmonary edema, skin eruptions, and vomiting. Exposure to chlorine has been linked to an increase in blood pressure, diabetes, anemia's, heart disease, gastrointestinal and urinary tract cancer and asthma.

## Deltamethrin

Deltamethrin products are among some of the most popular and widely used insecticides in the world; helpful in eliminating and preventing a wide variety of household pests, especially spiders, fleas, ticks, carpenter ants, cockroaches and bedbugs. Deltamethrin however should always be treated with caution. When care is not taken, deltamethrin poisoning can occur.

## Fluoride

Is commonly found in toothpaste and water. Clinical studies have shown that fluoride contributes to osteoporosis and long-term exposure produces osteosclerosis.

## Formaldehyde

Is found in household detergents and cleaners. It is also used in photographic chemicals, paint and rubber production, textile finished and conditioners. In addition to pesticides and vermicides, diesel exhaust, burning charcoal and cigarette smoke contain formaldehyde. It may produce such symptoms as irritability, disorientation and depression.



### Glyphosate

Glyphosate is a broad-spectrum herbicide useful on essentially all annual and perennial plants including grasses, sedges, broad-leaved weeds and woody plants. Trade names for products containing glyphosate include Roundup, Rodeo, and Pondmaster. It may be used in formulations with other herbicides. Glyphosate is rated least dangerous in comparison to other herbicides and pesticides.

### Orris Root

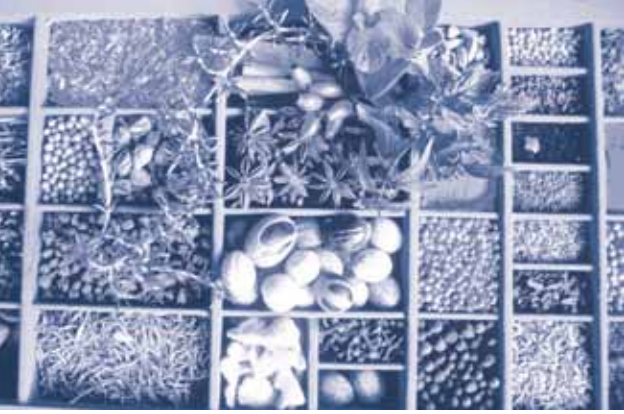
Once important in western herbal medicine, it is now used mainly as a fixative and base note in perfumery, as well as an ingredient in many brands of gin. This is also the substance left out of products that are labeled hypo-allergenic.

### Phenol

Phenol is used primarily in the production of phenolic resins and in the manufacture of nylon and other synthetic fibers. It is also used in slimicides (chemicals that kill bacteria and fungi in slimes), as a disinfectant, antiseptic and in medicinal preparations such as mouthwash and sore throat lozenges. Short-term exposure to phenol in the air can cause respiratory irritation, headaches and burning eyes. People who had skin exposure to high amounts of phenol had skin burns, liver damage, dark urine and irregular heart beat.

### Toluene

Toluene is a common solvent, able to dissolve: paints, paint thinners, many chemical reactants, rubber, printing ink, adhesives (glues), lacquers, leather tanners and disinfectants. Inhalation of toluene fumes can be intoxicating, but in larger doses nausea-inducing.



# Functional Foods & Medicinal Herbs

## 50 Functional Foods & Medicinal Herbs

### Açaí Berry

Sometimes called the Amazon's perfect "super berry" and is believed to be an exceptional antioxidant. May help build the body's natural defenses against infection and disease. Protects the body from free radicals that can attack and destroy cells. The fatty acids contained in Acai are believed to help maintain healthy cholesterol levels, improve blood circulation and reduce the risk of arteriosclerosis, stroke and heart attack.

### Agave

This flowering succulent has long been used in Mexico as an antiseptic, diuretic, laxative and for its healing/anti-inflammatory properties. The Agave syrup is used as a sugar substitute.

### Aloe Vera

This remarkable emollient is used to smooth wrinkles, heal skin irritations, soothe burns and draw out infection from wounds. Aloe Vera has attracted the interest of health care providers for its ability to help heal burns. Aloe Vera is a natural source of beta-carotene, minerals, amino acids and the important antioxidant vitamins (A, C, E and B1, B2 and B3). Aloe Vera may help digestive issues and inflammation.

### Ashwagandha

The herb acts as an overall tonic and works to stimulate the immune system and improving mental clarity and physical performance and is also reputed to enhance longevity.

### Astragalus

Is believed to support and enhance the immune system. Many people also use it as an overall good-health tonic to support healthy digestion and to help increase energy levels and stamina. Caution: Should be used in client taking anti-hypertensives. Avoid using together.

### Barley Grass

An extraordinarily nourishing food, a powerhouse of essential vitamins, amino acids, minerals, antioxidants and many more. Try it as a support for improved digestion and increased energy.

### Bee Pollen

A popular nutritious supplement that may help to enhance vitality, build up the immune system and increase stamina and strength. Bee pollen is a concentrated source of the B vitamin complex.

### Bilberry

Research shows that bilberry reduces eye irritation, nearsightedness and night-vision. It also extends range and clarity of vision. It may fortify veins and capillaries.

### Black Walnut Hull

An exceptional laxative that relieves constipation and promotes bowel regularity. It may lower cholesterol levels, as well as burn off fatty materials and toxins in the blood. Black Walnut Hull is often used to expel internal parasites.

### Cascara

Sometimes called "the world's favorite laxative," and is a natural way to cleanse the colon (usually acting overnight). Cascara also stimulates the production of gastric juices and can be a mild and effective treatment for chronic constipation.

### Chlorella

Contains the highest source of chlorophyll of any known plant. It is a nutrient-dense super food that contains protein, vitamins, essential amino acids and important minerals. It is used to improve digestion, purify the blood and enhance immune function.

### Dandelion

Both leaves and roots are considered to be a superior blood cleanser and excellent tonic that may help detoxify the liver and gallbladder.

### Echinacea Angustifolia

Believed to be one of the most powerful natural antibiotics and immune boosters. Echinacea's antiseptic, antiviral and antifungal qualities help to stimulate the body's resistance to infection by increasing white cell counts. Echinacea can be used for treatment of external wounds, as it may slow or stop the growth of bacteria.

### Elderberry (Sambucus nigra)

Used for its antioxidant activity and boosting the immune system it may help with coughs, colds, flu, bacterial and viral infections. Elderberries contain amino acids, vitamin A, B and a large amount of vitamin C.

### Essiac

Known as essiac tea as it also called, is a herbal remedy comprised of four individual herbs, evening primrose oil, garlic, ginger, and green tea. It is best known for treating cancers, but is purported to help with various other conditions.

### Feverfew

The most common use is for limiting the severity of migraine headaches, including the pain, nausea, dizziness, and light sensitivity. The herb has been used to lower fever and treat menstrual disorders and inflammation.

### Ginkgo Biloba

Has been used in treating memory loss, degenerative diseases of the brain and central nervous system. Because ginkgo increases the circulation of blood and oxygen to all parts of the body, the herb is an effective overall tonic that aids in the treatment of a variety of conditions.

### Goji Berry

Also called “wolfberry,” this herb has been used in China for over 2,000 years. Goji is an excellent antioxidant as demonstrated in studies to increase levels of superoxide dismutase (SOD) and to lower lipid peroxidases (both good). It has also been shown to help improve lymphocyte transformation and macrophage phagocytic function, as well as cancer prevention, liver protection, and for vision improvement.

### Goldenseal

Has the reputation as a herbal antibiotic and immune system enhancer. Goldenseal is used for colds and other respiratory tract infections. It is also applied to wounds and badly healing sores.

### Grape Seed Extract

Known for its excellent antioxidant properties, it is used as an aid for conditions related to the heart and blood vessels, such as atherosclerosis (hardening of the arteries), high blood pressure, high cholesterol, and poor circulation. Studies have shown the antioxidant activity of these specific bioflavonoids is 20 to 50 times greater than beta carotene or vitamin C or E at scavenging specific free radicals.

### Guarana Seed

Contains a high amount of guaranine and is primarily used to boost energy. It is a chemical substance with the same characteristics as caffeine. Guarana has 2 times more caffeine than coffee. Guarana is an ingredient of herbal tea or contained in capsules, and used in sweetened or carbonated soft drinks and energy shots.

### Gymnema Sylvestre

Due to its non-toxic nature and sweetness-suppressing abilities, gymnema sylvestre is a common ingredient in blends for glucose control, insulin resistance, obesity, and hyperglycemia. Currently it is one of the major botanicals being administered for those suffering from diabetes as it may help in controlling healthy blood sugar levels.

### Hawthorn Berry

Used to promote health of the circulation system, many health care professionals use hawthorn to help strengthen the heart. It is also a good antioxidant and has some support from recent research studies done in Germany.

### Huperzine

Huperzine has antioxidant and neuroprotective properties that suggest that it may be useful as memory support. It is currently being investigated as a possible treatment for diseases characterized by neurodegeneration, such as Alzheimer's disease.

### Kava Kava

Perhaps best known for its relaxing qualities. Several studies have found that kava root may be useful in the treatment of anxiety, insomnia, and related nervous disorders. Reports linking kava with liver damage has prompted regulatory agencies in Europe and Canada to warn consumers of the potential risks associated with this herb.

### Lo Han Kuo

Lo Han is fruit from a plant cultivated in the mountains of Southern China. Lo Han has a pleasant and sweet taste without elevating blood sugar. Lo Han is much sweeter than sugar.

### Lutein

Lutein provides nutritional support to our eyes and skin – the only organs of the body directly exposed to the outside environment. Lutein may demonstrate benefits for macular degeneration. Lutein also has antioxidant properties. Excess lutein may result in bronzing of the skin, called carotenodermia.

### Maitake Mushroom

Rapidly gaining a reputation as one of the best immuno-stimulants known. Used in Oriental medicine for over three thousand years. Maitake contains beta-glucan which has been shown to stimulate the immune system by activating certain immune cells, namely natural killer cells (NK cells) and stimulate the activation of at least one interleukin molecule.

### Mangosteen

A fruit grown in Thailand and Myanmar. Another antioxidant with broad-spectrum properties. The most prominent substance being xanthones, a group of compounds known for their anti-oxidant effect.

### Milk Thistle

Used for over 2,000 years as an herbal remedy for liver ailments. It has been used to treat chronic liver disease and protect the liver against toxins. Silymarin has antioxidant and anti-inflammatory properties.

### Mullein Leaf (Silymarin)

Can provide healing abilities from its flowers, leaves and root. Used to remedy respiratory problems, due to its expectorant properties that stimulate the cough reflex, helping to clear out congestion and expelling excess respiratory phlegm and mucus.

### Noni Berry

Used for thousands of years in the South Pacific as a tonic that boosts the immune system and supports the entire body. In traditional Polynesian medicine, Noni has been used for many health conditions. Noni has high antioxidant properties.

### Pau d-Arco Bark

One of the best known herbs from the Amazonian rainforest and used as whole herb to treat a wide range of conditions. The scientific study of pau d'arco is still very preliminary. There is a great deal of practical evidence, however, that pau d'arco may be used to treat flu, parasites and yeast infections.

### Pine Bark (Pycnogenol)

Proponents claim that pine bark extract is a powerful antioxidant. It has potent antioxidant effects, ranking with Vitamin E, C and lipoic acid.

### Red Clover Seed

Used to treat the symptoms of menopause. It has also been reported that red clover has been used for a variety of medicinal purposes. The flowering tops of the red clover plant are used to prepare extracts available in tablets and capsules, as well as in teas and liquid forms.

### Red Yeast Rice

Red yeast rice is a product of yeast that is grown on rice. It is marketed as Cholestin. Red yeast rice has been used with diet, exercise, and medical care to lower cholesterol and triglyceride levels.

### Reishi Mushroom

The active constituents are thought to include both beta-glucan polysaccharides and triterpenes. Reishi mushroom is as an immune stimulant. They have been used in China and Japan for years as a health tonic and as folk medicine. In Traditional Chinese medicine, reishi mushrooms are classified in a group of herbs known as Fu Zheng, which Chinese herbalists believe are the most powerful herbs for all-around strength, health, and longevity.

### Resveratrol

It is found in high concentrations in the skin of the grape. Has been shown to reduce inflammation and contains antioxidants called polyphenol and seems to play a role in protecting it from invading bacteria and fungi.

### Rhodiola

An adaptogenic herb and may help to prevent or reduce risk of disease. Its root has been used in traditional medicine in Russia and the Scandinavian countries for centuries. Numerous studies of rhodiola in humans and animals have shown that it helps prevent fatigue, stress and the damaging effects of oxygen deprivation. Evidence also suggests that it has an antioxidant effect, enhances immune system function.

### Rooibos Tea

Becoming more popular in Western countries due to its high level of antioxidants such as aspalathin and nothofagin, its lack of caffeine, and its low tannin levels compared to fully oxidized black tea or unoxidized green tea leaves. Traditional medicinal uses of rooibos in South Africa include alleviating allergies, asthma and dermatological problems.

### Schizandra Berry

For thousands of years the herb has been cherished as an anti-aging tonic that is believed to increase stamina, and mental clarity and help fight against fatigue and stress.

### Senna

Senna is used in modern medicine as a laxative; acting on the lower bowel, it is especially useful in alleviating constipation. This popular herbal laxative has made its way into multiple products on the cleansing market.

### Spirulina

Is the richest beta carotene food and is easily digested. It powerfully protects from oxidant stress and strongly supports the immune system with many antioxidants. This tiny aquatic plant has been eaten by humans since prehistoric times and is grown worldwide as a healthy food.

### St. John's Wort

Has been used for depression and other emotional disorders. St. John's Wort has also been used as a sedative. It can be used as a balm for wounds, burns, and insect bites. Today, St. John's Wort is sometimes used by some for sleep disorders.

### Stevia Leaf

Nature's sugar substitute that is said to be a all-natural, zero-calorie alternative to refined sugar. People who ingest stevia daily often report a decrease in their desire for sweets and fatty foods, which may be very helpful for dieters.

### Valerian

Valerian is believed to have been used since the time of ancient Greece and Rome. It was used as a folk remedy for a variety of conditions such as sleeping problems, digestive complaints, nervousness and tension headaches. Valerian's popularity waned with the introduction of prescription sleep medication.

### Vinpocetine

Vinpocetine is thought to increase blood circulation in the brain, which may explain why some preliminary studies suggest that it may reduce brain impairment and dementia after an ischemic stroke. Vinpocetine is also being explored as a complementary treatment for people with Alzheimer's disease.

### Wheatgrass

Packed with vitamins, minerals and all the amino acids necessary to build and maintain a healthy system, wheat grass helps to boost your natural immunity, increase your stamina and energy and may also reduce your risk of some serious diseases.

### Wormwood

Used by herbalists to improve digestion, to fight worm infestations. It was also regarded as a useful remedy for liver and gallbladder problems.

### Yellow Dock

Yellow dock is primarily used in the treatment of digestive problems, liver diseases, and skin disorders. It has been described as an alternative, astringent and hepatic. Yellow dock is also used to help support and restore liver function.

## Additional Female/Male Herbs

### Alfalfa Leaf

This excellent source of nutrients is a digestive aid. It is said to alkalize and detoxify the body. Alfalfa is very high in chlorophyll.

### American Ginseng

An excellent way to improve the body's resistance to damaging environmental influences, the herb is also used by many athletes for overall body strengthening and endurance. American ginseng has long been used as an aphrodisiac. It can be found in some energy drinks.

### Arnica

From the sunflower family, arnica has been used medicinally for centuries. The roots contain derivatives of thymol, which may have some anti-inflammatory effect. Arnica is currently used as a ointment preparation used for strains, sprains, and bruises.

### Black Cohosh

Famous for its beneficial effects on women's health. The herb is said to provide relief from menstrual problems (including PMS) and may be a natural way to ease menopausal discomforts.

### Blessed Thistle

An old and revered "bitter" herb that is well known for its use in promoting a healthy gastrointestinal system. It is a fine overall tonic that stimulates good digestion, healthy liver and gallbladder function, and promotes general good health.

### Blue Cohosh

Important "women's herb" that was introduced to early American settlers by Native Americans for menstrual problems such as cramps and muscle spasms. Modern herbalists still use it to treat women's health problems, as well as bronchitis and rheumatism.

### Bupleurum Root

First mentioned in Chinese medical texts as early as A.D. 200, bupleurum root is considered a deep liver cleanser that helps rid the body of toxins and may ease hepatitis, gallbladder, spleen and digestive ailments. It also invigorates the circulatory system and promotes health.

### Boswellia

An important herb in ancient Ayurvedic medicine - revered for its anti-inflammatory qualities. May relieve muscle pain, joint pain and aches associated with arthritis, gout, carpal tunnel syndrome and osteoarthritis. There are normally no side effects by the steroidal and non-steroidal anti-inflammatory medications usually prescribed for these conditions.



### Buchu Leaf

Known to strengthen the urinary system and is used to ease inflammation of the bladder, reduce bloating and excess water weight, alleviate painful urination and reduce swelling of the prostate.

### Burdock

Helps to rid the body of toxins and clear congestion from the circulatory, lymphatic, respiratory and urinary systems. It is said to soothe the aches and pains of arthritis, alleviate excess water weight and help to keep the skin clear and healthy.

### Butcher's Broom Root

Used to relieve excess fluid in the system and a bloated feeling, varicose veins and swelling brought on by excess water or poor circulation.

### Calendula

Its anti-inflammatory and antiseptic qualities have been used for centuries to ease skin infections, ulcerations, diaper rash and varicose veins. The herb is also said to help support the healthy digestion process. Calendula is widely used in cosmetics for its toning and soothing effects.

### Cat's Claw

Has become widely recognized as a superior immune stimulant with antioxidant, antiviral and anti-inflammatory qualities. It is said to be a "life-giving" tonic.

### Catuba

Primarily used for centuries as an aphrodisiac and libido stimulant for males and females, as well as a tonic to fortify the nervous system. It is said to calm the nerves, relieve insomnia, ease anxiety, restlessness, depression and emotional stress.

### Chaparral Root

An herb derived from the common desert shrubs. Native to the Southwestern United States, the leaves and stem of these desert plants have been used for centuries by Native American healers. Twentieth century herbalists had come to view chaparral as an effective blood purifier. Has strong anti-inflammation effects and can be applied as an antiseptic to wounds.

### Chasteberry

An old and trusted "woman's herb" that is great for easing the discomforts of menstruation and premenstrual syndrome (PMS), including water retention, mood swings, pain and nervous tension. Menopausal women rely on it as well for alleviating their hormone-related discomforts.

### Chondroitin Sulfate

It helps to facilitate mobility and flexibility. It cushions, lubricates and soothes sore joints. When taken in conjunction with glucosamine sulfate, its beneficial effects as an anti-inflammatory are enhanced.

### Cnidium Monnier

A Chinese herb that has been used for centuries in Traditional Chinese Medicine (TCM) as a remedy for a variety of skin ailments. It is used as a reproductive aid and aphrodisiac that increases sexual desire in both men and women. It can assist the body in producing nitric oxide, which relaxes smooth muscles and works to encourage healthy sexual function. It has been used for treatment of male sexual dysfunction.

### Cramp Bark

It has been used to relieve cramps of all kinds, including menstrual pains. Relaxes muscles and eases spasms of the lower back and legs. Cramp bark is also said to support uterine function, help regulate excessive blood flow during menstruation and menopause. Helps ease postpartum, uterine and ovarian pain.

### Damiana

An ancient tonic that lifts the spirits, perks up lost vitality and energy and promotes an overall feeling of well-being. It also has a reputation as a sexual stimulant and rejuvenator and has been used to treat sexual impotence and infertility in both males and females. Women have found it helpful when looking for relief of the discomforts of painful menstruation.

### Dong Quai

Or “Female Ginseng,” as it is sometimes called, is an age-old, natural way to support a woman’s health and reproductive system. It is thought to relieve the discomforts of menopause and premenstrual syndrome. Dong quai has been used to regulate monthly cycles in women.

### Evening Primrose

Contains a high concentration of a fatty acid called GLA. This is essential for cell structure and improved skin elasticity. Has a long tradition of relieving menstrual complaints (including cyclical breast pain) and promotes overall good health.

### False Unicorn

Its greatest value came in relieving female disorders of the reproductive organs, including menstrual and menopausal symptoms. It is also thought to help genitourinary complaints and infertility.

### Fo-Ti Root

A soothing, tonic herb that has been used for centuries in China to rejuvenate the body, combat premature aging and promote longevity. The herb is said to strengthen the liver, kidneys and reproductive systems. Traditional herbalists say it restores vitality, energy and fertility.

### Glucosamine

Helped many people find relief from the discomforts and inflammation of osteoarthritis, arthritis, bursitis, sciatica, osteoporosis and tendonitis. Okay in conjunction with chondroitin its beneficial effects as an anti-inflammatory are enhanced.

### Gotu Kola

Also known as centella and asiatic, this herb has a reputation for alleviating fatigue and depression, treating memory loss and anxiety.

### Horny Goat Weed

Used for two thousand years in China as a powerful aphrodisiac for both women and men. Further, it is said to be effective in restoring sexual desire in both sexes, enhancing erectile function and increasing sperm production in men. The herb is also said to be effective in reducing fatigue, increasing energy and alleviating menopausal discomforts.

### Horse Chestnut

Used to improve the circulatory system. It strengthens capillary walls and dilates blood vessels, which helps to relieve varicose veins, phlebitis, swollen ankles and local edema. The herb may reduce blood clots and hardening of the arteries.

### Horsetail

A healing herb, rich in nutrients and high in silica, which helps the body absorb calcium. It promotes strong, healthy nails, teeth, hair, skin and, perhaps most importantly, strong bones. This is particularly beneficial for countering the bone loss and osteoporosis experienced by menopausal women.

### Irish Moss

Soothes mucous membranes and alleviates respiratory ailments, such as bronchitis, dry cough and other lung problems. Like many other bountiful nutrients from the ocean, irish moss is a wonderful tonic for maintaining youthful, clear skin. It has anti-inflammatory effects.

### Juniper Berry

Promotes urine flow, helps to clear the kidneys, bladder and prostate of toxic wastes, while at the same time helping to combat urinary infections in both men and women. Well-known in the kitchen and as a flavoring for gin, juniper berry's warm, aromatic qualities aid digestion. It also helps to relieve arthritis and painful joints.

### Korean Ginseng

Women have used this to alleviate unpleasant symptoms of menopause. Long considered it to be an overall body tonic, korean ginseng is believed to vitalize, strengthen and rejuvenate the entire body.

### Lavender

Soothe headaches, calm nerves and stress. Lavender is an antibacterial property for the skin. Moreover, it is an effective tonic that can improve sleep.

### Lemon Balm (Melissa)

The herb has been used for centuries to soothe tension. Will not only alleviate stress and anxiety, but is said to improve memory and mental function. It also helps to relieve indigestion.

### Lobelia

Recent experiments have claimed that the herb may be helpful to smokers who wish to “quit the habit” and have tried all other remedies without success. It is believed to make the taste of nicotine repulsive. Lobelia may calm the nerves and relax the muscles of the body.

### Lycopene

Found in tomatoes and other red fruits and vegetables, such as red carrots, watermelons and papayas (but not strawberries or cherries). Numerous studies correlate high intake of lycopene-containing foods or high lycopene serum levels with reduced incidence of many diseases.

### Maca Root

Used for centuries to increase vitality, promote libido, fertility and sexual performance and stamina. It is also used to relieve the symptoms of menopause and premenstrual syndrome (PMS), as well as enhance energy and strength during athletic performance.

### Marshmallow Root

Aids the body expel excess fluid. It soothes the mucous membranes. The herb is good for easing bladder infection, digestive upsets, intestinal disorders, kidney problems and sinusitis.

### Mistletoe

The mistletoe leaves and young twigs are used by herbalists for treating circulatory and respiratory problems.

### Motherwort

Provides support for women's health, easing menstrual cramps, PMS and the symptoms of menopause. May help to alleviate stress, depression, anxiety and nervous disorders as it is also considered a relaxant.

### Mucuna Pruriens

Used as an effective aphrodisiac. It is still used to increase libido in both men and women due to its dopamine inducing properties. Dopamine has a profound influence on sexual function. Mucuna pruriens seeds have also been found to improve mood.

### Muir Puama

Said to be a powerful aphrodisiac for both men and women that has been used to correct sexual dysfunction impotence in men and frigidity in women. It is also believed to enhance arousal and prolong the sexual experience.

### Myrrh

Known as a powerful natural antiseptic, antibacterial, antiviral, anti-inflammatory and an antifungal. Myrrh has been used to relieve pain and alleviate skin disorders.

### Nettle Leaf

Nettle's purported anti-inflammatory effects have been repeatedly confirmed by modern research. It is particularly effective in treating allergic rhinitis and relieving nearly all the symptoms of itchy, watery eyes, sneezing and runny nose. Has been shown to be a diuretic.

### Pennyroyal

Removes gas from the digestive system. Can be used for upset stomachs and may cleanse toxins from the body through the skin. The herb is also used for digestive issues that relieve indigestion, flatulence and grumbling in the intestines. Use only as directed.

### Peony Root

Used in herbal medicine for thousands of years for its tranquilizing effect on the nerves, pain relieving effect on muscles and purifying effect on the blood. Best known for its antispasmodic capabilities.

### Pumpkin Seed

A powerful, reliable and safe way to destroy internal parasites. Sometimes called a "Male Tonic," pumpkin seeds are a natural way to revitalize the prostate gland, treat inflamed bladder and stimulate male hormone production. Protein and nutrient-rich pumpkin seeds contain four times the amount of beta-carotene than carrots.

### Pygeum Bark

The drug of choice for prostate disorders. It has been effective in treating enlarged prostate or benign hyperplasia (BPH), inflamed prostate and urinary problems associated with prostate complaints (particularly frequent nighttime urination and diminished volume).

### Red Clover Flower

Called one of "God's greatest blessings to man" and is said to be a wonderful blood purifier and cleanser and has been used to treat serious invasive disease, debilitating wasting diseases, excess mucus in the lungs and elsewhere, irritable bowel, gout, kidney and liver ailments.

### Red Raspberry Leaf

It is rich in minerals and vitamins that promote the health of hair, skin, nails, bones and teeth and is said to provide relief for heavy cramping and excessive bleeding during menstruation. Also, useful for PMS symptoms.

### Rehmannia Root

Long used in China to replenish vitality, rehmannia root is becoming popular in the West for fatigue to help with circulation and regulate menstruation.

### Sarsaparilla

Has long been used as a blood purifier and tonic that boosts stamina and energy. Sarsaparilla is considered an antibacterial and anti-inflammatory and has a good tonic effect on the body.

### Saw Palmetto

Helpful in treating many prostate disorders, including prostate enlargement and the discomforts of frequent urination. As an overall tonic for good health, it is also an expectorant. Many herbalists consider saw palmetto to be an aphrodisiac for both men and women.

### Siberian Ginseng

It helps to support the body's resistance to infection during prolonged periods of physical and mental stress. Athletes who want to increase performance and endurance favor its stamina-building benefits. Siberian ginseng's stress-fighting capacities have been useful in treating problems with concentration and environmental sensitivity.

### Skull Cap

A natural way to ease frayed nerves, relax, and get a restful sleep. May help with premenstrual syndrome and monthly cramps. Skull cap is also considered very useful for alleviating the difficulties of barbiturate and drug withdrawal.

### Slippery Elm Bark

This lubricating and nutritious herb coats irritated areas, allowing the body to heal itself. Its high level of mucilage helps to soothe a sore throat, ease indigestion and lubricate the bowel.

### Squaw Vine

It is used to relieve painful menstruation cramps.

### Stinging Nettle Root

A naturally nutritious way to help maintain a healthy urinary tract and flush toxins from your system. It is said to help reduce fatigue. Nettle is also considered an age-old remedy for allergies and respiratory problems.

### Tribulus Terrestris

Believed to increase the body's levels of testosterone, the herb is widely used to enhance muscle growth and boost body strength. It is said to be the closest and strongest natural herbal alternative to synthetic hormones. It is believed to effectively treat sexual dysfunction and boost a low sex drive.

### Uva Ursi

Used for centuries as a mild diuretic with powerful antiseptic qualities that help to remedy a full range of urinary tract infections, such as prostatitis, cystitis and urethritis. It helps to eliminate wastes and toxins.

### Velvet Deer Antler

Contains many substances including amino acids, minerals, proteins, anti-inflammatory peptides, hormones, gangliosides, glycosaminoglycans, and insulin-like growth factor-1. In traditional Chinese medicine, velvet antler has been used for over 2000 years as a tonic.

### White Willow Bark

Ingredients in white willow bark contain compounds from which aspirin was derived. This natural painkiller contains the beneficial effects of aspirin without the side effects typically associated with synthetic aspirin products.

### Wild Yam

High in plant hormones, which may be synthesized by the body to support its own hormone health. For women who want to continue the normal balance of hormones, benefit from relief of pains and aches or simply enjoy overall good health.

### Yarrow

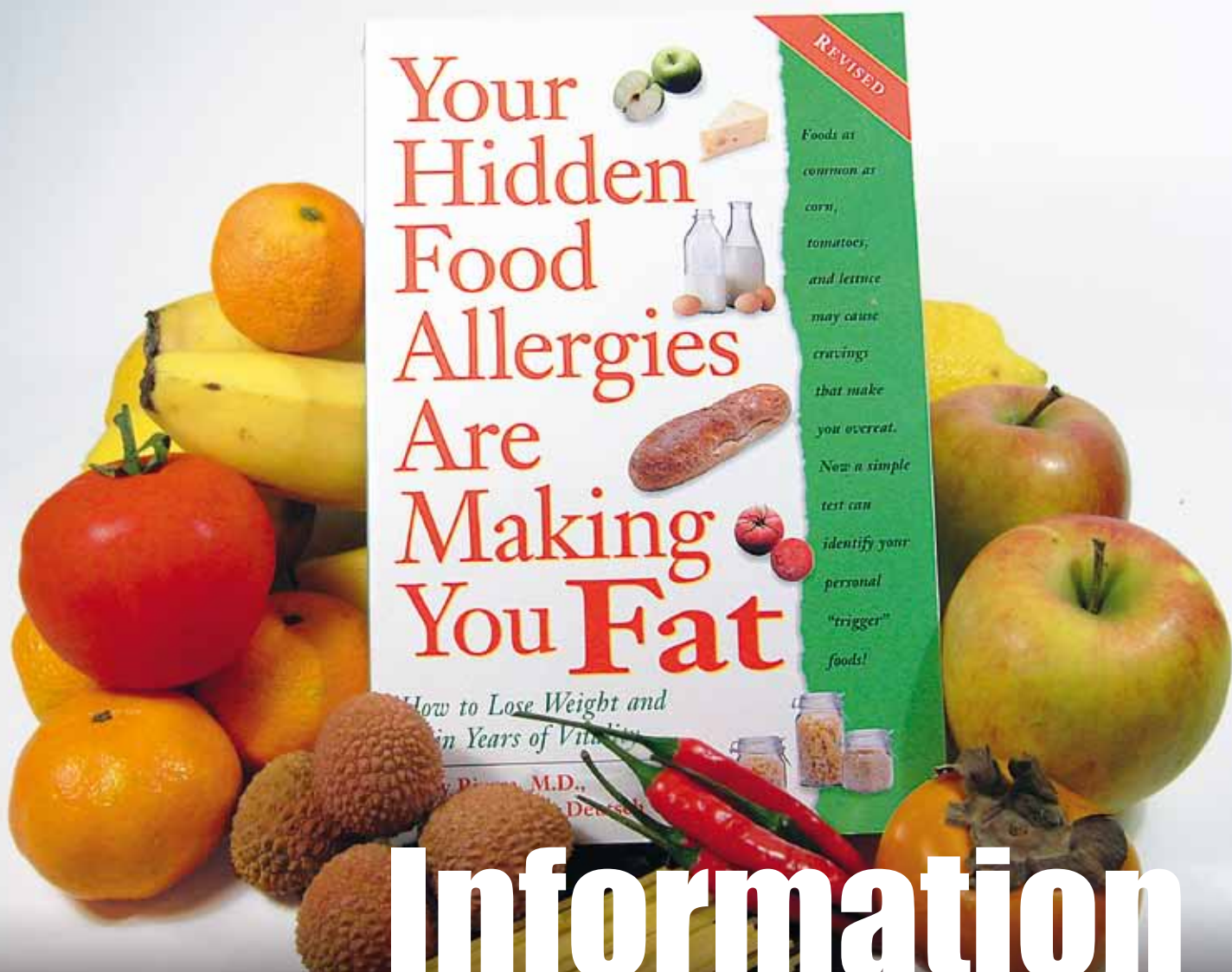
Lab tests show that yarrow contains flavonoids (plant-based chemicals) that increase saliva and stomach acid, helping to improve digestion. Yarrow may also relax smooth muscle in the intestine and uterus, which can relieve stomach and menstrual cramps.

### Yerba Maté

Excellent source of vitamins, minerals and fatty acids. Similar to green tea yet higher in nutritional value. Yerba maté contains 27% more active nutritional compounds than green tea. This is a powerful antioxidant found to stimulate the immune system and aid in protecting against disease.

### Yohimbe Bark

Considered a potent and effective aphrodisiac for both men and women. In men, it is said to be particularly effective in boosting sexual performance. It is particularly useful in cases of impotence and erectile dysfunction, whether brought on by age, stress or fatigue. Yohimbe also has antioxidant effects.



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