



THE LEAP PROGRAM • PART 1

Beginning Your LEAP Journey



Getting started on your LEAP journey

Congratulations and welcome to the LEAP Program! You are about to begin what could be the most important step you've ever taken to improve your day-to-day health and well-being.



LEAP has helped thousands of food sensitive individuals quickly and substantially improve, or even totally eliminate, many chronic health problems. Digestive complaints, headaches, joint & muscle pains, fatigue, weight imbalances, and many other symptoms can be related to your diet. If your symptoms are related to your diet, then you need to take a dietary approach to get and stay better.

LEAP is a complete roadmap for food sensitivity sufferers. Not only will it tell you which foods to avoid, but more importantly LEAP tells you which foods you should eat to maximize your health. Your healthcare provider will be working with you over the next several months to ensure optimal results with your program. Your commitment to following their Instructions is the most important part of getting results. Amazing things can happen when you closely follow LEAP.

Your LEAP Report

The resources found in your LEAP Report offer practical information and tools that will help you implement your program successfully.

SECTION 1

Understanding Your MRT Results

A brief description of the Mediator Release Test and how to understand the results.

The LEAP ImmunoCalm Dietary Management Program

The quickest and most effective way for food sensitive individuals to build a healthy diet.

Building a Menu

Instructions on how to build a menu.

3-Day Rotation Diet Planner (Phase 6)

A description and instructions on how to develop a customized rotation diet.

SECTION 2

LEAP FAQ's

Answers the most frequently asked questions about LEAP, MRT, food sensitivities and other subjects related to diet and nutrition.

Chemicals & Additives

Provides information about the food additives, colorings, and other chemicals tested by MAT.

Eating New Foods

A simple guide to retraining your taste buds.

Food Alternatives for Commonly Eaten Items:

Describes practical substitutions for foods, which fit your taste but may not agree with you.

Basic Recipes & Shopping

Some simple recipes that can be tailored to foods on your eating list.

Restaurant & Travel Survival Guide

A "How To" guide for following your diet while eating out and traveling.

Rotation Diet Tips

Techniques to make your rotation diet enjoyable and practical.

Common and Hidden Sources of Test Substances

Lists a variety of different places tested foods can be found - some obvious and some not so obvious.

Food Families Guide

Helps you customize your 3-day rotation diet and expand the list of tolerated foods on your eating plan.

Food Sensitivity Resources

Provides supplemental sources of books, catalogs, foods, websites, and other resources related to living with food allergies, sensitivities, and intolerances.

Understanding your MRT results

Food sensitivities can play a role in many common health conditions.

Chronic health complaints such as digestive problems, headaches, joint and muscle pain, and fatigue are all symptoms, which can be caused by our immune system’s “reaction” to foods, additives, or other substances in our diet.

Sometimes the reactive food is something easy to identify, like milk. Other times it’s a food chemical like solanine and it’s anything but easy to determine. The problem is, any food or food additive can be reactive. Even foods which are considered “healthy,” such as chicken, broccoli, or garlic can cause symptoms.

Often, there are many reactive foods or chemicals, not just one or two. In addition, reactions can be delayed and/or dose-dependent. This means we may not feel the effects of a reaction until many hours or days after we’ve eaten the reactive foods, or unless we eat enough of the reactive food. For all of these reasons, dealing with food sensitivities on your own is very difficult—unless you have LEAP.



THE FIRST STEPS

If you have food sensitivities, the first thing you need to do is identify which foods and food chemicals are causing you problems. MRT (Mediator Release Test) can do this. MRT is the most accurate test available to identify foods, additives, and chemicals that are causing sensitivity reactions.

MRT is a patented* blood test that quantifies how strongly your immune cells react to the foods and food chemicals tested by measuring intracellular mediator release indirectly. When released from immune cells, chemical mediators such as histamine, cytokines, and prostaglandins produce damaging effects on body tissues, leading to the development of symptoms. Identifying harmful substances is the first step towards improving your health if you suffer from food sensitivities. The next step involves following an individualized LEAP eating plan which systematically builds a healthy diet of foods that you tolerate.

* US Patent numbers 6, 114,174 & 6,200,815

MRT Reaction Categories

MRT quantifies the level of reactivity and breaks reactions into 3 categories: **Non-Reactive (GREEN)**, **Moderately Reactive (YELLOW)**, and **Reactive (RED)**.

Green

The substances in this category showed the lowest degree of reactivity. Foods from this category (with the exception of known allergic or intolerant foods) will comprise the first phases of your eating plan.

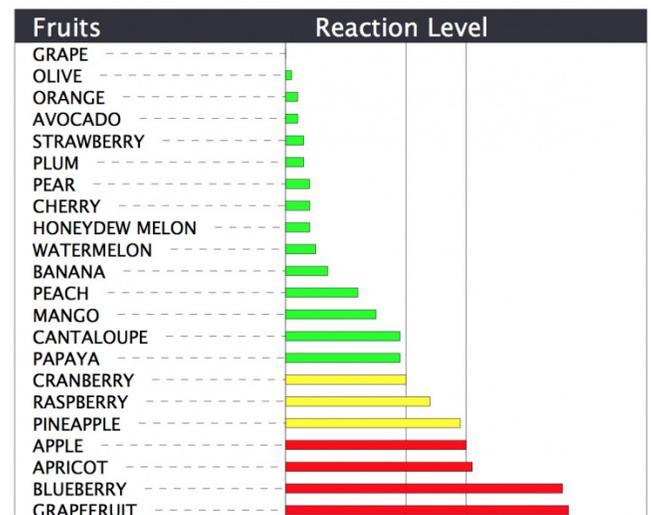
Yellow

These substances showed relatively less reactivity than the RED category but should also be strictly avoided. Clinical experience has shown that substances within this category may provoke symptoms either in and of themselves, when eaten in combination, or when over-consumed.

Red

These substances showed the highest relative level of reactivity and are the most likely to be contributing directly to your health problems. It is important to strictly avoid these foods and chemicals.

SAMPLE MRT CHART



The LEAP ImmunoCalm Dietary Program

The LEAP ImmunoCalm Dietary Program was developed by a team of dietitians, physicians, immunologists, and other health professionals drawing on over 100 years combined experience treating the health problems associated with food sensitivities.



We encourage you to get the most out of your efforts by following these guidelines strictly and working closely with your healthcare provider, who may customize your plan to meet your special needs. The closer you follow your plan, the more health benefits you'll receive.

A dietary plan developed just for you

A hallmark of food sensitivities is that almost any food or chemical potentially can be reactive and a specific food may cause a problem with one person but not another. The individualized nature of sensitivity reactions means an individualized approach is most appropriate and most effective. The results of your MAT testing combined with other dietary information that you provided have been used to develop a food reintroduction schedule specifically for you. Each phase of the reintroduction schedule corresponds to a time frame, which specifies when and how to reintroduce the listed foods into your diet.

When you have food sensitivities, the first step in getting better is to identify reactive foods and chemicals. The next step is to figure out what to eat and how to eat. This is exactly what the LEAP ImmunoCalm Dietary Program provides.

There are 4 components to The LEAP ImmunoCalm Dietary Program:

- 1. Food Reintroduction Schedule & Rotation Diet Planner**
- 2. Food Idea List**
- 3. Building a Menu**
- 4. Menu Planner Template**

Used together under the guidance of your healthcare provider, these tools plus the additional resources in Section 2, will help you quickly build a varied, delicious and healthy eating plan.

Food Reintroduction Schedule

Each Phase (1 - 5) displays a list of foods that have been divided into food categories. It has been our experience that the least reactive MRT foods have the highest probability of being well tolerated. Therefore, foods for each phase are selected based on their level of MRT reactivity, starting with the least reactive foods.

IT IS VERY IMPORTANT TO FOLLOW THE INSTRUCTIONS CAREFULLY AND ONLY EAT FOODS FROM YOUR CURRENT OR EARLIER PHASE(S).

If any specific food or ingredient ISN'T listed in Phase 1 or any subsequent phase, do NOT eat it. Remember that our goal is to eliminate all symptoms caused by your diet. If you're not sure if a particular food is reactive or not it's better to be cautious and avoid it, than to eat it and potentially undermine your effort.

Phase 1

Phase 1 is the most difficult phase because it is the most restrictive. It is also the most important, so careful compliance is essential.

- The list of foods in Phase 1 can be consumed freely during the specified number of days indicated at the top of the Phase.
- It is recommended that you use these foods in their whole food form during this time. In other words, during this phase, it is best to make your own food from scratch. This will ensure your reactive foods are completely eliminated from your diet, allowing maximum recovery to take place.
- Organic foods are not mandatory, but are preferred whenever possible.
- It is better to eat 4-5 smaller meals than to eat 3 large meals; however it is of utmost importance to establish regular eating habits. Do not starve yourself and do not skip meals.

Note: During the first phase of your program, you may feel a temporary worsening of symptoms. You may have headaches, feel achy, grumpy, moody, run-down, tired or fatigued. If you start to feel worse, don't be discouraged. Instead, become enthusiastic and remain committed to following your program. These "withdrawal" type symptoms are actually a sign that you're moving in the right direction. Be sure to drink plenty of water. If your healthcare provider allows it, take some type of OTC pain reliever that contains none of your reactive ingredients to "take the edge off." This situation is not uncommon and usually ends after four to six days. After your biochemistry has readjusted and the reactive antigens have been cleared from your system you'll begin to feel better.



- Drink plenty of water. A general rule of thumb is to drink $\frac{1}{2}$ your bodyweight in ounces each day. So if you weigh 200lbs, optimal hydration means 100oz of water or fresh allowed fruit or vegetable juice (not coffee, beer, or soda!). At the very least drink 64 oz of water per day.
- Salt can be used in moderation as an additional flavor enhancer throughout all phases of your program, unless prohibited by your physician.
- After your symptoms have improved, you can move on to Phase 2.

Note: The list of foods provided in this report displays your non-reactive MRT foods. If you see any food item on your eating list that you know you are allergic to, or that you suspect is contributing to your health problems - even if you're not 100% sure, it's important to avoid that food. In such a case, you can substitute one food from the next phase into the current phase from the corresponding food category (i.e. protein, starches, fruits, etc.). Your healthcare provider can recommend the best choice for replacement.

Phase 2

The eating schedule for Phase 2 is a bit different from that of Phase 1. You can continue eating freely from your Phase 1 list; however, each new day of Phase 2, you can add 1 new food into your diet. It can be from any food category (i.e. protein, vegetables, fruits, flavor enhancers, etc.) on your list, but it must be **ONLY** one new food total each day. This careful reintroduction schedule will help you “fine tune” your eating list, helping you build a healthy diet and experience how your body responds to each new food.

It is unlikely that a food in the early phases of your program will cause any problems, but this particular strategy helps ensure optimal results with your plan.

- If a reintroduced food causes any type of reaction or causes you to feel worse, omit that food from your list.
- If there is no noticeable change, then add one new food of your choosing the following day.



- Continue good eating habit suggestions of Phase 1 for every subsequent phase.
- Continue to drink plenty of water for every subsequent phase.
- Eating the same foods over and over can result in developing new food sensitivities. Therefore, varying the foods on your eating list from day to day is a good preventive measure.

Note: There may be more foods on your Phase 2 eating list than there are days scheduled for Phase 2. Don't be too concerned with the time frame. It's more important to reintroduce the foods into your diet in the specified manner (one at a time).

Phases 3-5

For each successive phase, continue to add new foods in the same manner as in Phase 2 (one new food per day and monitor your response). New foods can be either from the current phase or previous phases.

LEAP FAQs

All patients who follow the LEAP Program start at the same point—the beginning.

LEAP ImmunoCalm Dietary Program

How do I get started on my program?

How does this program work?

How will this diet make me feel better?

How long will it take before I notice results?

How long do I have to stay on this diet?

How long do I have to avoid my red and yellow reactive foods?

What is a 3-day rotation diet and how does it work?

What if I feel worse during this diet?

What will happen if I eat the foods on my red list?

Should I keep taking my prescription medicine and over-the-counter medicines?

I eat out a lot; will I be able to stay on this program?

What if I can't follow my diet; can I eat foods from my reactive list?

Should I take vitamin supplements on the program?

Why do I have food cravings; will this diet help prevent food cravings?

Mediator Release Test (MRT)

Is MRT accurate?

What is the difference between MRT and other tests for food sensitivities?

How does MRT work?

Why does the test show I'm reactive to something I have never eaten?

I know that I am allergic to a particular food but MRT said I wasn't. Why?

How can I be reactive to this food? I eat it all the time and it's a healthy food.

Why are milk, cottage cheese, and yogurt different in reactivity?

Because many of our patients have similar questions when starting, we've organized some of the most commonly asked questions about food sensitivities, diet and nutrition, and how the LEAP diagnostic and therapeutic approach works. The questions have been divided into five categories, which are listed below for easy reference.

Food Sensitivities

What is the difference between food allergy, food sensitivity, and food intolerance?

Why do I have food sensitivities; how did I get them?

How do food sensitivities cause symptoms?

Diet & Nutrition

Should I take vitamins on the program?

What are refined carbohydrates?

I don't eat breakfast; is that alright?

I only eat one meal a day; is that alright?

General Program Questions

If I have a problem with candida, will this program help?

I have hypoglycemia; will this program take this into consideration?

I am a diabetic; can I be on this program?

Would my diet be good for other family members?

LEAP ImmunoCalm Dietary Program

How do I get started on my program?

Your LEAP Report provides you with a step-by-step plan to learn what foods to eat and how to build a healthy diet that you can tolerate. The best way to start is to read and become familiar with your LEAP ImmunoCalm Dietary Program and the other resources included in your report.

Once you understand the basics of how to build a healthy diet, you will begin to develop menus based on your allowable foods. These menus will specify what you plan to eat for breakfast, lunch, dinner, snacks, and beverages. Planning ahead will help you to become more comfortable with your new way of eating. Next you can make a shopping list to purchase your allowable low-reactive foods.

Your LEAP health practitioner will help you customize your program and answer your questions.

How does this program work?

The LEAP ImmunoCalm Diet Program works by eliminating those foods and substances which trigger non-allergic immune system reactions, and properly combining and reintroducing a diet of your low-reactive foods. In a nutshell you can say that the LEAP Program works by designing and implementing a truly healthy diet plan for each individual patient.

How will this diet make me feel better?

Food sensitivities have been implicated in over 35 different health conditions and affect approximately 20-30% of the American population! These disorders and their accompanying symptoms are caused (or made worse) by the toxic chemicals, such as histamine and prostaglandins, that are released when your immune system begins to react adversely to the foods you eat. By identifying and eliminating the foods and food substances which are triggering immune system reactions, you can experience a tremendous improvement in the way you feel.

Most patients report improved energy, improved digestion, loss of weight, less food cravings, less aches and pains, clearer thinking, and a better sense of well-being in a fairly short time.

How long will it take before I notice results?

Most patients see a noticeable difference within the first one to two weeks on the program; however, in some cases it can take as long as four to six weeks. Your particular response may vary depending on certain factors:

1. How closely you follow your LEAP eating plan.

If you follow it to the letter you will have the greatest chance of success in the shortest time frame possible. If you follow it loosely or carelessly, your results will be compromised to the extent of your neglect.

2. How long-standing your condition has been.

Sometimes it takes a bit more time to reverse the damage caused by years of sensitivity reactions, improper eating, and inadequate nutrition. The vast majority of our patients experience great results within two weeks to one month of following their program closely.

3. The degree to which food sensitivity plays a role in your condition.

Some of our patients come to us and experience total symptom relief from their condition as long as they maintain their diet. Others will experience a decrease in symptoms but not complete remission. This is because food sensitivity can either be the direct cause OR a contributing factor to your health problem.

All of these factors will affect your progress and response to your program. However, out of all of these factors, your compliance has the highest bearing on the benefits you'll experience.

How long do I have to stay on this diet?

The dietary management strategies used in the LEAP Program are not the same as those found in fad diets. The LEAP Program is an individually tailored dietary wellness program which can be used for your whole life. Most of our patients find that after a few weeks of sticking to their program, LEAP becomes a habit and becomes a natural part of their day-to-day living. In addition, our patients usually feel so much better they don't want to return to their old eating habits.

How long do I have to avoid my red and yellow reactive foods?

It is important always to avoid foods that cause your immune system to react. The best way to be sure that a reactive food is safe again is to “challenge” it after a period of abstinence, usually three to six months. This should be done under the care of your healthcare provider. In some cases, it may be important to retest to see if reactions have changed, as is often the case with sensitivity reactions; but retesting is usually a matter of clinical need (i.e. you begin to feel sick frequently again, even though you are following your plan carefully).

What is a 3-day rotation diet and how does it work?

A rotation diet is a universally accepted dietary approach to treating food sensitivities. A 3-day rotation diet limits one’s exposure to foods from the same food family to once every 3 days. For example, if chicken and eggs were low-reactive foods, you would be able to eat them freely on Monday (the first day of your rotation diet), but you would not eat them again until Thursday. This limits your exposure and thus decreases the chances of developing new sensitivities.

The most commonly reactive foods (such as wheat, cow’s milk, corn, egg, soy, and cane sugar) are thought to be most common because they are eaten the most frequently and in the greatest proportions of any foods. One theory, which explains this phenomenon, states that when we eat the same thing over and over again, we lose the ability to properly break down and assimilate that food. When the improperly broken down food molecule gets absorbed during digestion, our immune system recognizes that food particle as being an enemy, and begins to attack the food whenever it is eaten. This process is called “loss of oral tolerance” as we no longer “tolerate” the food we once did.

The best way to prevent new food sensitivities from arising is to limit our consumption frequency of the foods in our diet. The 3-day rotation diet accomplishes this. We recommend you start your 3-day rotation diet approximately one month AFTER you have started your elimination diet. You may not have tried all the foods listed on your rotation diet at this point, so just rotate the items you have already tried and found you tolerated.

What if I feel worse during this diet?

Sometimes, when food sensitivity patients eliminate their reactive foods, they begin to feel temporarily worse than they did before the diet. Maybe they have less energy, more aches and pains, headaches, more irritability, or they just feel that they are getting worse instead of better. If this happens to you during your first week on the program you should actually get excited because that is one of the main signs that you are on the road to recovery.

Food sensitivity has been likened to food addiction, and physicians who treat food sensitivities have observed for years that patients often go through temporary withdrawal symptoms when they avoid their reactive foods. This is thought to be a kind of “cleaning up” of all the allergens in your system, and a simultaneous recalibration of your biochemical equilibrium.

Withdrawal from caffeine may also cause headache, drowsiness and fatigue. Reducing your caffeine intake PRIOR to Phase 1 of your elimination diet may help limit these symptoms. The most important thing if you are experiencing these withdrawal symptoms is to be in contact with and follow the advice of your doctor. In many cases, a simple OTC pain reliever like Tylenol or Advil can help “take the edge off” so to speak if you are not reactive to any of the ingredients. Also, extra water consumption can also help minimize the temporary symptoms of withdrawal.

What will happen if I eat the foods on my red list?

Eating foods from your red or yellow list can potentially set you back weeks on your program. The foods listed as red are those that show the highest levels of reactions from your test results and are the ones that are most likely to cause or contribute to your health problems. So eating the foods on your red list is a surefire way of sabotaging your results on the LEAP Program. When our patients report that they had accidentally eaten foods from their red list, they often report some type of symptoms that accompanied their mistake. Terrible headaches, brain fatigue, diarrhea, heartburn, or just feeling lousy, water retention, and sudden weight increase are all common symptoms that arise when a person reintroduces reactive foods.

Should I keep taking my prescription and over the counter medicines?

You should always follow the advice of your doctor regarding prescription medications you are taking and never stop the medication on your own, as this may have serious side effects. You may however find that after following the LEAP Program that your symptoms have diminished to the point where you may need to consult with your doctor to adjust the dosage of your medication. Your doctor or pharmacist can help you to check to see if your medications contain any of your reactive ingredients and advise you on any needed changes.

I eat out a lot; will I be able to stay on this program?

You can stay on the program while eating out; however it will require more planning and a thorough knowledge of hidden sources of your reactive foods. It is also important to ask your waiter or the chef about ingredients in the foods available. Refer to the sections on Common & Hidden Sources of Test Substances and Restaurant and Travel Tips for more information.

What if I can't follow my diet; can I eat foods from my reactive list?

When you consume reactive foods, the physiological, immunological, and biochemical effects in some cases can set back your progress by weeks. Therefore, we never advise our patients to eat foods that test reactive or that are known to provoke symptoms. If you are in a situation where it is impossible to follow the specific phase of your program, the next best thing is to be sure to limit your diet to only those foods on your low-reactive list. This may work until you can go back to your original plan. Remember that your results will be compromised the more you stray from your eating plan.

Should I take vitamin supplements while on the program?

Supplements can be a convenient and useful way to make sure that you are getting the right amounts of essential vitamins and minerals. Be sure to check your current supplements for reactive ingredients and follow the advice of your healthcare provider. Often we recommend that you avoid any non-essential supplements during the early phases of your plan, then introduce them one at a time as untested items and monitor your response.

Why do I have food cravings; will this diet help prevent food cravings?

In many cases food sensitivities have been likened to food addiction. The food sensitivity sufferer usually craves foods which, when eaten, temporarily create a feeling of well-being and an alleviation of unpleasant physical and mental symptoms. In other words, when you eat your reactive foods you temporarily feel better - but then, you soon feel lousy. The theory behind this physiological response is that the chemicals released from immune cells cause a temporary biochemical imbalance which shifts levels of certain hormones and neurotransmitters. Your body is then forced to create ways to readjust the balance. The body craves sweet foods, simple sugars, other carbohydrates, and reactive foods as a means to restore biochemical equilibrium. The problem is that this creates an ongoing cycle that can lead to continued symptoms, excess calorie consumption, or even binge eating.

By following your LEAP Program your cravings should subside considerably within the first 5-10 days on the program. Remember that cheating on the program cannot bring about any long term benefit and usually results in short, medium, and long term problems. Another thing that may make it easier to give up foods you crave is to understand that in reality, your reactive foods are poisoning you. Many people crave chocolate. But how many people would eat chocolate covered poison? So if you can understand that your reactive foods are poison, it becomes easier to find an alternative.

Mediator Release Test (MRT)

Is MRT accurate?

A blinded, peer-reviewed scientific study showed MRT to have the highest level of accuracy of any food sensitivity blood test (94.5% sensitivity and 91.8% specificity).

What's the difference between MRT and other tests for food sensitivities?

There are a few different tests available that are intended to identify sensitive foods. They are IgG

(ELISA or RAST), ALCAT, and LRA by Elisa-Act (not to be confused with ELISA IgG). Without understanding some basics, it's impossible to understand how one is superior to the others and how they compare.

The Basics

Food sensitivities make a person feel sick because the immune system reacts to foods and causes the release of chemicals called mediators (such as histamine, prostaglandins, cytokines, etc.) from white blood cells. It's the mediators that cause the inflammation, pain, and other symptoms associated with food sensitivities. In fact, food sensitivity is a very complex reaction by our immune system. There are many different cells that have different profiles of mediators, many mechanisms that cause mediators to be released, and of course, many different mediators. The thing that makes food sensitivities complicated is that there are various ways the immune system can respond in hypersensitivity. Because there are different ways the immune system can respond, there are different approaches researchers have tried to identify reactive foods and chemicals.

ELISA IgG

This test quantifies how much IgG you are producing to a specific food, with the assumption that high levels of IgG are only a bad thing. There is a specific type of immune reaction called Type 3 Hypersensitivity that can involve IgG or another antibody called IgM. When IgG is involved in triggering mediator release, this testing will be very helpful. Unfortunately, there are three very serious limitations of IgG testing:

1. High levels of IgG can be either good (suppressing of an immune response) or bad (causing an immune response). But you cannot tell which is good IgG or which is bad IgG through this testing. So, having a high level may actually be good, not bad.
2. IgG only plays a minor role in IBS, migraine, and fibromyalgia. Instead, research shows that Type 4 Hypersensitivity is the primary type of reaction.

Type 4 Hypersensitivity doesn't involve IgG or any other antibodies.

3. IgG testing cannot identify reactions to chemicals like food additives. It's clearly documented that food chemicals play a very important role in provoking symptoms in many conditions. If you cannot identify these reactions, you could very well be missing very important information that can impact your health.

How MRT compares to IgG

There are a number of advantages of MRT over any form of IgG testing. MRT is an endpoint test, meaning that all the immune based adverse reactions end up causing mediator release. So MRT does this without caring about the mechanism. In fact MRT is able to take into account the actions of all mechanisms, whether they are antibodies or other, because all of them ultimately cause white blood cells to release mediators. MRT is able to account for a much wider array of reactions than the relatively simple IgG testing. In addition, MRT is able to identify reactions to chemicals. Overall, MRT is more accurate and useful clinically.

The ALCAT Test

The ALCAT Test was invented and patented by the same person who invented and patented MRT, Dr. Mark Pasula. The two technologies are similar, yet separately patented, which means there is a unique difference. The main difference between the two tests is in terms of accuracy and reliability. Side by side studies have shown MRT to be more accurate (higher sensitivity and specificity) and to have higher split sample reproducibility than ALCAT. It is a good, but older method that has been replaced by MRT.

LRA by ELISA-Act

This test is somewhat of a mystery as to what it actually measures and how that correlates with mediator release and with an involvement in IBS, migraine, fibromyalgia, or other food-sensitivity-related conditions. The company that invented it makes claims about its accuracy, reproducibility, and validity, but in fact there are no actual third party studies that confirm any of their claims. Nor have their own studies related to the same been published. In other words, there are no published studies that support their claims. In addition, the actual methodology is not described or validated in any peer reviewed publications, yet they claim that it is. Therefore it's not possible to assess and compare its strengths and weaknesses to MRT.

Continued »

What's the difference between MRT and other tests for food sensitivities? Continued

How MRT compares to LRA by ELISA-Act

The main difference between MRT and ELISA-Act is that of scientific validation. There are studies published on MRT that clearly show the methodology, accuracy, ability to discriminate between healthy and sick populations, etc. They clearly tie the relationship of what MRT is measuring to the physiological basis of adverse food reactions in IBS, migraine, fibromyalgia, and other food-sensitivity-related conditions.

How does MRT work?

MRT is an indirect method of accurately measuring mediator release. MRT does this by measuring changes in the liquids to solids ratio of your blood after your blood has been exposed and incubated with the test substance. It accounts for all reactions by your immune cells. This is done as an indicator that your immune cells have released chemical mediators such as histamines and others. Significant reactions are broken into either Reactive (Red), or Moderately Reactive (Yellow) categories and insignificant reactions (Green) are placed in the Low-Reactive category. All measurements are made using the most accurate method of measurement (Ribbon technology) currently available.

Why does the test show I'm reactive to something I've never eaten?

There are 4 possible explanations as to why the test would show reactivity to an infrequently or never-consumed food:

1. Genetics

It has been shown that immune-based food reactions can have a genetic component and can be passed on from generation to generation.

2. Cross reactivity

Your immune system identifies and differentiates antigenic substances based upon their molecular structure. Foods from the same food families often share similar protein structures and can sometimes cross-react if tested. Another situation that can contribute to cross reactivity is when a reactive chemical binds with a non-reactive food and causes that food to be identified immunologically as a reactive substance.

3. Hidden source of the food

Many foods can be found as additives under different names. For example, monosodium glutamate (MSG) can be found in an ingredient list as monosodium glutamate, MSG, natural flavoring, or hydrolyzed vegetable protein (HVP). It is common for these items to be hidden in prepared foods. The report sections on

Hidden Sources of Test Substances, and Chemicals and Additives can help reveal hidden forms of the items you need to avoid.

4. False positive test result

Even the most accurate laboratory tests can give some false readings. The overall accuracy of MRT as determined in a peer reviewed blinded study is roughly 93%, leaving a small margin of potential error in the reading, that can show up as either false negatives (which means a substance is actually reactive, but the test says its non-reactive), or false positives (which means the test says its reactive, but it is really not).

How can I be reactive to this food? I eat it all the time and it's a healthy food.

One of the problems with food sensitivities is that any food or food substance that you consume can potentially be a culprit. Foods that you eat regularly are even more likely to be causing a problem.

Food sensitivities often develop over time in a gradual manner, and this causes you to become accustomed to a certain amount of suffering which you experience as "normal". When you eat reactive substances in this situation, it may not cause a dramatic reaction, relatively speaking. However, if you avoid your reactive foods for a while and then reintroduce them, you may experience a very pronounced reaction. Then you know that food is not good for you, no matter what the other health benefits of the food may be.

Foods such as garlic, fresh vegetables, or fresh fish, provide important nutrients and under normal circumstances promote health. However, any food that triggers your immune system to react against your body is not healthy for you, even if it contains some health benefits for others.

Why are milk, cottage cheese, and yogurt different in reactivity?

While milk, cottage cheese, yogurt, and other cheese are all in the same food family (dairy), the antigenic protein structure varies considerably as the milk changes into a new product. That is why some people cannot tolerate milk, but can tolerate yogurt or certain cheeses. However, a good rule of thumb is that if you are reactive to two or more foods from the same food family, you should avoid the entire family.

Food Sensitivities

What is the difference between food allergy, food sensitivity, and food intolerance?

Food allergies, food sensitivities, and food intolerance are often used interchangeably and inappropriately. In fact, there is active debate in scientific and medical circles as to how to define and use these three terms. The general consensus is that food allergy can be defined as any adverse reaction to food that involves our immune system. This further breaks down into two kinds of reactions, food allergy, and food sensitivity. Food intolerance does not involve the immune system.

Food Allergy

Perhaps the best-known example of food allergy is also its least common - and most dangerous. Anaphylactic shock is a severe hyper-reaction of the immune system caused by a massive release of histamine and other chemical mediators from certain types of white blood cells called mast cells and basophils. Not everyone with food allergies experiences anaphylaxis though. The immunological triggering mechanism that causes the mast cells (and basophils) to release their chemicals is called IgE and is a very well understood phenomenon. This underlying mechanism is considerably different from the triggering mechanisms found in food sensitivities. The most common foods implicated in food allergy are peanuts, other nuts, shellfish, or foods containing sulfites. People with anaphylaxis can die within minutes if they ingest even one molecule of their allergic food.

Food allergy affects about 1-2% of the population and accounts for only a small percentage of all adverse food reactions. Most immediate reactions are not life threatening but do produce uncomfortable symptoms. People suffering from food allergy can often identify what foods they are allergic to without the help of a doctor or testing. This is because the reaction occurs every time and shortly after they eat their allergic food. However, if you know or suspect you have food allergies you should contact your physician, as additional testing and treatment may be necessary. You should also alert your dietitian of any known food allergies so that your diet can be adjusted accordingly.

Food Sensitivity

Food sensitivity (also known as delayed food allergy) is quite another story. Delayed reactions manifest in many different ways as they can affect any organ system in the body and can take from 45 minutes to several days for symptoms to become apparent. The delayed onset of symptoms and complex physiological

mechanisms involved in food sensitivities make them an especially difficult puzzle to try to solve either on your own or with most laboratory serum tests. In fact, food sensitivities often go undiagnosed or misdiagnosed. The treatments prescribed usually provide only temporary relief that mask the symptoms instead of addressing the root cause of the problem.

The differences between the two kinds of immune-mediated adverse food reactions are summarized in the table below.

Comparison	Food Sensitivity	Food Allergy
Organs involved	Any organ system can be affected	Usually limited to airways, skin, gastrointestinal tract
Symptom onset	From 45 min - 3 days after ingestion	From seconds to 1 hr after ingestion
Percentage of population affected	Est. 20-30%	1-2%
Acute vs. chronic symptoms	Usually chronic, sometimes acute	Usually acute, rarely chronic
Immunologic mechanisms	White blood cells Antibodies: IgG and subclasses, IgM, C ₃ , C ₄	IgE
Non-immunologic mechanisms	Toxic, Pharmacologic	None
Amount needed to trigger allergy	Any amount, small to large - Often dosage dependent	1 molecule

Food Intolerance

Food intolerance can produce some digestive symptoms that are similar to food sensitivity but it doesn't involve the immune system. Instead, when the food in question is consumed, it is not properly digested and begins to ferment inside the gut. The best example of food intolerance is lactose intolerance. This condition is characterized by bloating, loose stools or diarrhea, and gas. Lactose intolerance is caused by an inability of the body to produce enough of the enzyme lactase, which breaks down lactose, the primary sugar found in milk. Avoiding milk products or supplementing the diet with lactase enzyme is the best way for a person with lactose intolerance to overcome the problem.

Why do I have food sensitivities; how did I get them?

Researchers do not have all the answers to this question and there is still much to be learned about how food sensitivities develop. The following are the most widely accepted factors that can help cause food sensitivities.

1. Poor digestion.
2. Unbalanced gut flora
3. Chronic stress/severe trauma
4. Immune system overload
5. Genetics
6. Toxic-induced loss of oral tolerance (overexposure to chemicals)

How do food sensitivities cause symptoms?

The symptoms that result when we have food sensitivities are caused by the release of toxic chemicals such as histamine from immune cells. The steps below describe the sequence of events involved in developing symptoms from food sensitivities.

1. Identification

Immune system identifies foods and food substances as foreign.

2. Call in the troops

Immune & non-immune mechanisms (IgG, IgA, IgM, etc.) trigger immune cells to attack.

3. Chemical warfare

Chemicals such as histamine are released from immune cells to destroy invaders.

4. Symptoms

Tissue inflammation and damage occurs leading to symptoms.

Diet & Nutrition

Should I take vitamin supplements while on the program?

Supplements can be a convenient and useful way to make sure that you are getting the right amounts of essential vitamins and minerals. Be sure to check your current supplements for reactive ingredients and follow the advice of your healthcare provider. Often we recommend that you avoid any non-essential supplements during the early phases of your plan, then introduce them one at a time as untested items and monitor your response.

What are refined carbohydrates?

Refined carbohydrates are processed foods rich in simple sugars. Refined carbohydrates have far less nutritional value than their whole food counterparts and should be eaten sparingly. White sugar, white flour, corn syrup and foods with these ingredients (baked goods, desserts, candy, soda, etc.) are examples of refined carbohydrates. If you consume simple sugars frequently, the amounts not immediately used or stored by the liver will be stored as fat.

I don't eat breakfast; is that alright?

It is very important not to skip breakfast. Breakfast is the most important meal of the day because it kick-starts your metabolism, helping with weight control, and provides important energy for your daily activities. It has been said that if you skip breakfast, you will gain a pound a year. Your light meal should be in the evening.

I only eat one meal a day; is that alright?

Actually, your body requires a steady stream of calories and nutrients to function optimally and one meal a day won't provide this. It is best to consume three normal sized or five smaller meals per day starting with breakfast.

General Program Questions

If I have a problem with candida, will this program help me?

If you are suffering from candida sensitivity (candidiasis), it is important to consult with a physician who is knowledgeable about the treatment. Often, ridding the body of candida overgrowth involves the use of anti-fungal medications or ointments, as well as a more restrictive diet that avoids sources of yeast, and foods that feed the candida, namely carbohydrates and simple sugars. We may recommend the use of probiotics to help re-establish normal intestinal flora.

I have hypoglycemia; will this program take this into consideration?

Yes. Hypoglycemia is a condition in which your blood sugar decreases below normal levels. Dizziness and severe lack of energy are the most common symptoms of this condition. Regular eating patterns are the most important dietary therapy to regulate blood sugar. Smaller more frequent meals eaten every two to three hours can ensure a proper supply of blood sugar.

I am a diabetic; can I be on this program?

Yes. The LEAP dietary program can be integrated with the diabetic diet very easily and with good results.

Would my diet be good for other family members?

It may or may not, depending upon their individual reactivities. Each person responds differently to the foods, chemicals and additives that they are eating. It would be best to have them do the LEAP Test and have an eating plan developed for their particular needs.