

## LEAP FREQUENTLY ASKED QUESTIONS (F.A.Q'S)

All patients who follow the LEAP Program start at the same point - the beginning. Because many patients have similar questions when starting, the below information answers some of the most commonly asked questions about food sensitivities, diet and nutrition, and how the LEAP diagnostic and therapeutic approach works.

### **1. 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 the 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 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?

### **2. Mediator Release Test (MRT):**

Is MRT accurate?

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

How does MRT work?

How come the test shows 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?

### **3. 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?

### **4. Diet & Nutrition:**

Should I take vitamins on the program?

What are refined carbohydrates?

I don't eat breakfast; is that all right?

I only eat one meal a day; is that all right?

### **5. General Program Questions:**

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

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**

### **Q. How do I get started on my program?**

A. 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.

### **Q. How does this program work?**

A. 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.

### **Q. How will this diet make me feel better?**

A. 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.

### **Q. How long will it take before I notice the results?**

A. 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 by 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.

**Q. How long do I have to stay on this diet?**

A. 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.

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

A. It is important to always 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).

**Q. What if I feel worse during this diet?**

A. 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 re- calibration 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.

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

A. 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 sure fire 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.

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

A. 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.

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

A. 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.

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

A. 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.

**Q. Should I take vitamin supplements while on the program?**

A. 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.

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

A. 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

## **The Mediator Release Test (MRT)**

### **Q. Is MRT accurate?**

A. 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).

### **Q. What's the difference between MRT and other tests for food sensitivities?**

A. 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 to 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 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 just because you have 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.

**MRT:** 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.

#### **Q. How does MRT work?**

A. 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.

#### **Q. How come the test shows I'm reactive to something I have 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).

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

A. MRT identifies foods and food substances involved in food sensitivities, and is the most comprehensive blood test for these types of reactions. If you know that you are allergic to a particular food, it most likely won't show up on MRT because mast cells, the main cells involved in allergic reactions, are found in tissue, not in the circulation. MRT measures the circulating cells which tend to be involved in sensitivities.

If your "allergy" is not really an allergy, but rather a food intolerance, that also will probably not show up on your MRT results because the symptoms are not triggered by an immune system reaction. In any case, if you know a particular food does not agree with you, the best thing to do is avoid it.

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

A. 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.

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

A. 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

### **Q. What is the difference between food allergy, food sensitivity, and food intolerance?**

**A.** 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.

<b>Item Compared</b>	<b>Food Sensitivities</b>	<b>Food Allergies</b>
Body organs involved	Any organ system in the body can be affected	Usually limited to airways, skin, gastrointestinal tract
Symptom onset occurs	From 45 minutes up to 3 days after ingestion	From seconds to 1 hour after ingestion
Are symptoms acute or chronic?	Usually chronic, sometimes acute	Usually acute, rarely chronic
Percentage of population affected	Est. 20 - 30%	1 - 2%
Immunologic mechanisms	White blood cells Antibodies: IgG (and subclasses) IgM C3, C4	IgE
Non-immunologic mechanisms	Toxic Pharmacologic	None
How much food is needed to trigger the allergy?	From small amount to large amount; often dosage dependent	1 molecule of allergic food needed to trigger reaction

### **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.

### **Q. Why do I have food sensitivities; how did I get them?**

A. 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).

**Q. How do food sensitivities cause symptoms?**

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

<b>Step 1 Identification</b>	<b>Step 2 Call in the Troops</b>	<b>Step 3 Chemical Warfare</b>	<b>Step 4 Symptoms</b>
Immune system identifies foods and food substances as foreign	Immune & non-immune mechanisms (IgG, IgA, IgM, etc.) trigger immune cells to attack	Chemicals such as histamine are released from immune cells to destroy invaders	Tissue inflammation and damage occurs leading to symptoms

**Diet & Nutrition**

**Q. Should I take vitamin supplements while on the program?**

**A.** 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.

**Q. What are refined carbohydrates?**

**A.** 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.

**Q. I don't eat breakfast, is that all right?**

**A.** It is very important not to skip breakfast. Breakfast is the most important meal of the day because it kick-starts your metabolism, helps 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.

**Q. I only eat one meal a day, is that all right?**

**A.** 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

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

**A.** 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.

**Q. I have hypoglycemia; will this program take this into consideration?**

**A.** 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.

**Q. I am a diabetic; can I be on this program?**

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

**Q. Would my diet be good for other family members?**

**A.** 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 need