

# **LDA**

# **Low Dose Allergen**

# **Immunotherapy**



## **Patient Instruction Booklet**

How to regain your health with optimal immunotherapy

For patients treated with (ultra) Low Dose Allergen Immunotherapy (LDA)

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**Dec 2022: 11<sup>th</sup> Edition**

1st Edition: May 2003

2<sup>nd</sup> Edition June 2005

3<sup>rd</sup> Edition July 2007

4<sup>th</sup> Edition February 2009

5<sup>th</sup> Edition January 2011

6<sup>th</sup> Edition February 2012

7<sup>th</sup> Edition September 2013

8<sup>th</sup> Edition May 2014

9<sup>th</sup> Edition Jan 2015

10<sup>th</sup> Edition Jan 2018

11<sup>th</sup> Edition Dec 2022

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## Introduction to LDA – Low Dose Allergen Immunotherapy

This booklet, now known as the “Pink Book”, is written as a guide for patients receiving LDA immunotherapy. Since there are a few rules related to LDA that don’t apply to other forms of immunotherapy, I wrote this booklet to make it simpler for patients doing LDA and to put the rules in one place. This booklet is meant only as a guide, and your physician may have other ways of doing LDA that are slightly different from those in this booklet.

I feel very strongly that LDA is far superior to other methods of allergy treatment, and it offers a unique treatment for many autoimmune diseases that are only otherwise treatable only with drugs, many of which are hazardous.

LDA was developed from EPD immunotherapy, invented by the most brilliant allergist I’ve ever known, from Great Britain, Dr. Leonard M. McEwen.

### *Action of LDA*

LDA is a method of immunotherapy that involves desensitization with combinations of a wide variety of extremely low dose allergens (approximately  $10^{-17}$  to approximately  $10^{-6}$ ), given with an enzyme mixture containing beta-glucuronidase. The enzyme mixture acts as a *lymphokine*, better signaling the immunizing effects of the allergens. LDA induces the production of “activated” T-regulator cells.

Since LDA is compounded under my direction by a large compounding pharmacy, and used by prescription for specifically named patients, it is not regulated by the FDA the same way as a product sold by commercial manufacturer. It is legal for patients and physicians to use, as long as it’s prescribed properly.

“Classical” immunotherapy for hay fever, dust mite or other IgE-mediated allergies is largely *antibody*-mediated, and “neutralization” and Low Dose Immunotherapy (LDI) therapy likely works through *low dose tolerance*, so all of these methods are generally not long lasting and cannot easily be discontinued without the partial or complete return of symptoms. Medications are frequently required routinely with the former, while avoidance is usually necessary with the latter two.

LDA immunotherapy, however, is primarily *cell-mediated by T-regulator cells*. Since T-cells have a half-life of perhaps up to 80 days, although this figure is unclear,

LDA creates a much longer lasting desensitization than the other immunotherapy used in the USA. Patients generally need fewer medications, and avoidance of allergenic substances such as pollens and foods is much less necessary.

### *Administration Method*

LDA is administered by one or more tiny *intra*dermal injections (into the skin itself), usually on the inner aspect of the forearm, though it may be given on the legs, upper arms or abdomen. Some physicians are using it sub-lingually (under the tongue), but there are no long-term studies validating this. It appears to work.

### *Safety*

There has never been a fatal or life-threatening systemic reaction to LDA treatment. The dosage is simply too low for life-threatening reactions to occur, and indeed LDA can be used to treat anaphylaxis to peanut and shrimp.

LDA includes mixtures of over one hundred allergens that act quite “universally.” This means that patients allergic or intolerant to most substances, and with quite diverse medical conditions, can respond to treatment. Available LDA mixtures include inhaled pollens, danders, dust and mites, fungi, yeast (including *candida* species), molds, foods, many food additives, most common chemicals and perfumes (except pesticides and herbicides) and formaldehyde.

LDA food and inhalant mixtures are universally cross reactive, and Dr. McEwen put every possible allergenic component into his original EPD. The mixes are proprietary, so please don't bother asking your LDA physician whether it contains particular substances to which you are allergic. No matter what they are, the proteins in LDA are selected to cover everything.

Since LDA does not contain pesticides or herbicides *per se*; patients who experience adverse responses to these agents alone, and *not* to other related excitants or allergens, will not receive significant benefit from LDA. However, these patients are rare, and if such a patient additionally has concurrent food, chemical and inhalant problems, the results can be good.

LDA is the only real immunotherapy that can be used to treat *true* (IgE-mediated) food allergy, such as life-threatening reactions to peanut and shrimp (anaphylaxis).

*LDA should not be used during pregnancy.* There is no evidence that LDA could be harmful during pregnancy, but as we know, anything can happen with pregnancy and childbirth, and if a patient is on LDA, they could place the blame there. If a patient elects to be treated when she is pregnant, precautions must be taken with drugs used in conjunction with LDA, such as most antifungals and Vitamin A, and probably even a simple substance like bismuth, if it is used, could harm a developing baby.

### *Frequency of Treatment with LDA and Response*

Since T-cells have a long half-life, LDA treatments need only be given every 2 months at first, then less often. Generally, patients with most conditions are treated every two months for six to eight times, or about a year. After that, treatment intervals generally increase. Children usually require less treatment and can more easily stop treatment than can adults.

Although rare, hay fever *strictly due to seasonal pollen allergy* is initially treated with 1 to 3 doses per year. It is preferable to get the first injection 3 to 4 months before the onset of the season, and a booster dose 2-3 weeks before the season peaks. After the first season, only one booster dose may be required yearly, given 3 weeks before the season starts. However, for some patients, treatment every two months is necessary to create immunity. The best results are seen when LDA is started about a year before the allergy season for any particular patient.

Most allergies, including food allergy or intolerance, tend to be less simple. Initial doses tend to be at 2-month intervals for the first six to eight treatments. Subsequently the frequency of the desensitization can be reduced. LDA injections cannot be given more often than every 7 weeks. Foods that cause the most adverse reactions, such as *milk and wheat*, usually take the longest time to desensitize completely.

When the response is well established and patients feel pretty well for the whole two months between treatments, generally between the sixth to the eighth dose (fewer doses in children), the frequency of treatment for most illnesses may often be extended to every three months, then every four months, and so on.

Our study of over 10,000 patients showed that half of the patients with multiple problems can stop LDA completely after 16 - 18 doses. The other half can at least go for long intervals (1-4 years) between treatments after that time. Children usually respond more quickly and may stop sooner.

## How Long Does It Take To Improve?

The effect of LDA is usually immediate, and 70 % of patients feel improved immediately after their first treatment. If not, most patients respond by the third treatment. However, the *full* benefit of LDA will take longer. In particular, some patients with food allergy or intolerance may only notice sustained improvement only after three to six doses, i.e. 6-12 months from the start of treatment, and severely reactive foods may take two years to become tolerable in moderate to large amounts. For the rare patient, a few foods may not totally desensitize.

### The response to LDA has two distinct phases after an injection:

1. *Immediate Reaction:* An immediate temporary “cure” of symptoms may result after LDA. This may begin immediately after the first treatment and usually will last 2-5 weeks. Two to three weeks of significant improvement is typical with the first two to three treatments, after which symptoms begin to return. One may see this for the first several treatments. The first treatment that should “work” — at least to some degree — for most patients will be either the first, second or third. A positive response to the first injection occurs on an average about 70% of the time, a "neutral" response about 23%, and a "poor" response about 7%. Response rates generally improve with subsequent treatments. If there is no response at all (better *or* worse) by the third treatment, there could be a problem that your physician should investigate. No response by the 6<sup>th</sup> treatment is rare, but means LDA will usually fail.

Some patients do not feel well shortly after they start the “LDA Diet”, and after the first to third treatment may have a few days of not feeling well. Vitamin B-complex injections work well for children who are severely nauseated when they go on the LDA diet.

Rare patients (about one in 20) do not feel well for the first 2-3 weeks after their initial treatments. *I tell patients to try very hard to try to ignore unpleasant symptoms that occur in the first days to three weeks after treatment*, and not call their physician about every weird symptom that

might develop. These will usually improve dramatically by three weeks, and will happen much less (or never) with subsequent treatments.

2. *Delayed Action:* This should begin after 3-4 weeks (after the lymphocytes mature) and may last to some degree for 2 to 4 months at first, then much longer later on in treatment. This response begins usually between the sixth and eighth treatment, when there may be no apparent immediate response to the shot, but as lymphocytes mature, more and more positive effects are noted. Occasionally I see a patient who has this response with the first treatment. In either case, patients may complain for 3 weeks after a treatment, only to find their shot “kicks in,” almost like magic, at about 3-4 weeks.

Once the first injection takes effect, you should note you feel better in many ways usually for 2 to 5 weeks. When the injection begins to wear off, your symptoms will return to some degree and you must wait until the next injection for a continued response. *There may be a decrease in response to **any** LDA treatment,* after which continued improvement is again noted. The reason for this is unknown. You cannot receive an LDA treatment sooner than 7 weeks from the last.

The period of improvement should lengthen over time, and gradually you should feel quite well for the whole 2-month period between injections. When this happens, you can begin to stretch the interval between LDA injections. This will generally occur in adult patients somewhere between the 6<sup>th</sup> to 8<sup>th</sup> injections (about a year). Children should be able to stretch their injection intervals sooner. **It is better to go longer and begin to have symptoms than it is to get a treatment “early” for some convenience (travel, etc.).**

**WARNINGS:** *If you have any history of eczema, skin allergy of any kind, hives, swelling of the lips, face or body, autoimmune disease, or especially anaphylactic reactions or anaphylaxis, be certain the doctor knows about this before you ever receive LDA: it is often important that this type of patient receives prednisone prior to at least the first treatment, and perhaps for several subsequent treatments.*

*Also, if “neutralizing” or standard immunotherapy is administered as the first several LDA injections appear to “wear off,” there is evidence that this could destroy the success of LDA immunotherapy.*

## Reasons for Failure of LDA

The *primary* reasons (in order of decreasing importance) for failures of LDA I have seen are:

- **Improper dosage – most commonly under-dosage of foods.** This is the most common reason LDA may not seem to work very well at first, or, more commonly, stops working after a treatment or two. This is sometimes unavoidable, since certain patients (those with anaphylaxis, eczema), **MUST** be started on the low-dose LDA foods (LX). Often that will be the correct dose, but if your LDA works less and less better, you likely need a dose increase.
- Failure for some patients to follow the more important “rules” for LDA. Medications and failure to follow the LDA Diet are the principal reasons for this type of failure.
- Low Vitamin D levels. This can be checked with a blood test.
- **Silicone breast or other implants, active infection (e.g. in a root canal), or other immunological issues. Women with breast implants, either silicone or saline-filled, have been known to fail on LDA.** Sometimes even removal of the implants may not solve the problem, as it takes years for silicone antibodies to clear, and if there has been implant leakage, they may never clear.
- Interference by organisms from the gut, usually yeast, and/or improper patient preparation for this problem.
- *Rare:* Interference from *extremely* high levels of heavy metals (even patients who have had their dental amalgams removed are not exempt from this problem),
- Occasionally LDA fails for reasons we do not understand.

## Disadvantages of LDA

The disadvantage of LDA is that it could take 6 to 8 injections to achieve a *sustained* effect that lasts for the full two months between injections (except for simple dust and pollen allergy, which occur sooner). *LDA cannot be considered to have failed until 6-8 treatments have been given without any benefit.* Even then, there is often “delayed” success 6 months or so after the treatments are stopped. Rare patients may have very little response until they have had 6 treatments.

**NEVER PLAN TO START LDA UNLESS YOU'RE WILLING  
TO BE TREATED FOR 12 MONTHS BEFORE  
YOU MIGHT SEE LASTING RESULTS**

This having been said, you should see relief long before then. I have found that LDA tends to give more *permanent* relief than any "standard" form of immunotherapy I've ever used.

To protect the result of LDA from being disturbed, it may be necessary for you to follow some of the guidelines discussed in this booklet around the time of treatment. Failures of LDA are often due to non-observance of one or more of the rules in this booklet.

*Medications, some herbals, homeopathics, other treatment modalities, and activities not "restricted" in this booklet should be considered to be "unknowns." My best advice, especially if you have significant illness, is to avoid "questionable" things for 3 weeks after an LDA injection whenever possible.*

**If we don't know whether newly developed medications and those not listed in this Booklet will cause LDA to fail, my general advice is: 1) Avoid it for three days before LDA and three weeks after, 2) If you are unable to do this, avoid it for the three critical days around LDA, 3) If you are unable to do this, avoid it for the day before and the day after LDA, and 4) if you absolutely must take it all the time, I advise that you take it all the time. However, if your LDA fails, you must then look at this as the primary reason and find a substitute for the medication.**

### **General Rules to Receive LDA**

#### *Overall Guidelines*

**In order for LDA therapy to work well, for most patients the most important guidelines to follow are the *food and diet guidelines* and to the *drugs to avoid*, discussed in this booklet.**

The success rate of LDA depends partly on factors that interfere with it. The guidelines in this book are meant to help make this treatment work best.

LDA is an *extremely* low dose immunotherapy. Since the dose is so low, there are factors that can interfere with your response to it. Other low-dose forms of

immunotherapy have the same problems. The lower the dose, the more potential there is for interference from “outside” things.

Interestingly, there are patients who do very little to try to help the therapy succeed and it works well. On the other hand, some patients need to follow most guidelines in this booklet in order to insure their treatment works well.

Some physicians do not follow the standard dietary (or other) rules of LDA and seem to have success. Whether this success is less than would be seen if their patients had followed to rules has not been determined. My advice for patients is to follow the rules, since Dr. McEwen made them in the 70’s. Short of that, I tell patients to follow the rules at first. Once they see how LDA should work for them, they could certainly experiment later.

### **The Big Reason for the LDA Diet**

There is a major reason I ask all but a rare patient to follow the strict LDA Diet that follows in this booklet: *beta glucuronidase*. LDA is the only treatment modality anywhere that uses beta glucuronidase as an adjuvant. Technically speaking, the beta glucuronidase acts as a *lymphokine*, which makes your developing T-regulator (T<sub>reg</sub>) lymphocytes become immune to various allergens (foods, inhalants, etc.).

The many allergens contained in LDA (inhalants, foods, etc.) are in extremely tiny and *extremely precise* doses. These precise doses of each allergen were formulated initially by Dr. McEwen after much study and experimentation. He found that lower doses than this didn’t work, and that higher doses often made patients much worse.

Considering this, he developed the LDA Diet. If you consume a food not allowed on the diet, that food will be in your bloodstream at some variable dose and be *delivered to your lymphocytes at a different dose than intended for the treatment to work as intended*. That dose could ruin the effect of that allergen – usually a food – and very possibly make your food sensitivity much worse. I’ve seen this happen many, many times. When you follow the LDA Diet exactly, it insures that those precise doses of allergens in the LDA treatment will *remain* precise. If you don’t, you take a gamble.

Worsening may not always happen. The more severe your food sensitivities are, however, the more likely this will occur, or it will simply cause your LDA treatment to

fail. Please don't take the chance. The LDA Diet is, after all, only for three days. Anybody can follow a diet for three days, can't they?

## THE BASIC LDA DIET – For Level 2 and Level 3 Patients

**I will mention the "3 critical days" frequently in this booklet. This term means the day *before* LDA, the day *of* LDA and the day *after* LDA.**

### **You should eat ONLY:**

- Lamb, rabbit, venison (only if you rarely or never eat it) or white fish (if you are not specifically allergic to it). Some other unusual meats may be acceptable. Discuss these with your physician. Salmon is probably a poor idea due to the high omega 3.
- Sweet potatoes (any type) or yams
- Parsnips, rutabagas, tapioca root products or cassava root, manioc, yucca, sago (turnips OK for some)
- *Cooked* carrots, celery and cabbage
- Potatoes – any type – (may be a problem for some patients)
- Lettuce – any type, but *no other greens* – raw (outer leaves only) or cooked (all leaves OK)
- Tapioca granules, flour or starch, *plain* (see tapioca wafer recipe in recipe section)
- Rhubarb
- *Pure* Baking soda (without additives)
- Sea salt: *plain* sea salt (non-iodized – do *not* use "regular" salt).
- Bottled, R/O, filtered or purified water, flat or fizzy for drinking *and* cooking

*Note: no margarine is safe to use during the 3 critical days. Avoid all margarine and all other seasonings totally. The only seasoning permitted is sea salt, such as Haines® brand in the yellow container (do not use the iodized kind).*

**NOTE: Any food not listed above is unsafe to eat in any quantity during the critical three days. This includes medications (unless advised by the doctor), herbs, beverages, chewing gum, and any other things you might put in your mouth; and no, sorry, coffee and tea are NOT allowed!**

**Children under the age of 8 may have trouble with this diet because of *food withdrawal*. They may experience nausea and vomiting. Consult the doctor if your child is receiving LDA (remember B-complex injections).**

**Note: For LDA to work well, you need to have relatively *normal levels of Vitamin D* in your body (blood). This can be determined by a simple blood test. Your Vitamin D level should optimally be about 40. If not, ask your doctor about Vitamin D supplementation and re-check your level.**

**There are three levels of rules with guidelines to follow for patients with different types of problems discussed in this booklet.**

### **Level 1: Guidelines for Patients with *ONLY* Seasonal Hay Fever**

#### **Do You *Really* Have *Only* Hay Fever?**

**NOTE:** Very few patients have *only* "simple" hay fever and may be classed as Level 1. The following questionnaire should help you determine this. If you really have *only* seasonal allergy, *your answers should be the ones in italics below*; if they are not, you are very likely Level 2.

1. Symptoms in: Spring and/or Fall *ONLY*?      *yes/no*
2. Eyes affected?      *yes/no*
3. Nose affected?      *yes/no*
4. Chest affected?      *yes/no*
5. Swelling/tingling in mouth after any food?      *yes/no*
6. Winter symptoms?      *yes/no*
7. Eczema/skin rashes?      *yes/no*
8. Irritable bowel syndrome      *yes/no*
9. Severe problems with any chemical odors?      *yes/no*
10. Gastrointestinal symptoms?      *yes/no*
11. Headaches/Migraine?      *yes/no*
13. Close family members with hay fever?      *yes/no*
14. Do your symptoms clear up completely in winter?      *yes/no*
15. Have you been told you have "*Candida*"?      *yes/no*

So if your answers to the questions above are *not* the ones in *italics*, you very likely have food or other problems, and you almost certainly need to follow stricter guidelines (usually Level 2).

**At the time of LDA:**

- Avoid alcohol for 10 days after treatment. You may cook with it as long as it is heated enough to evaporate the alcohol before it is served.
- Don't snuggle with your pets (especially cats) and avoid indoor molds at the time of treatment. Try to limit your exposure to pollens and dust 12 hours before and 36 hours after LDA (for example, don't sleep with your cat or dog during that time). If you receive LDA inhalants near a pollen season, and you are experiencing symptoms outdoors, you may need to extend that time.
- If you have ever had a water leak in your home and mold was discovered, you might do best to stay elsewhere during the three critical days.
- You may exercise as you normally would during LDA, but avoid *fatiguing* exercise, *extreme* heat, and *sunburn* for 3 days after LDA.
- *Follow the rules for drugs known to interfere with LDA and immunization.*
- Do not put ointments, creams and lotions on the site of the injection(s) on the day of treatment.
- Use an unscented soap and shampoo (e.g. Magick Botanicals shampoo or similar) on the day you receive LDA (or the night before if you bathe at night).
- Do not wear perfumes or other scented agents to the office on the day of LDA (this is partly to protect your doctor's patients who have chemical sensitivity).
- Avoid yard-work for the three critical days.
- *If you know you are **allergic** to your pets (especially cats), and your pets spend time inside the house, you should not stay in your home during the three critical days. Wash your hands after handling your pet. The danger is sensitization to a pet, and this has been shown to occur in rare patients, usually after 3 to 6 injections. If this does happen, the sensitization can be reversed with the next LDA, but stricter guidelines must be followed. If you are not allergic to your pets, try to keep them out of the bedroom and don't snuggle your face into your pets' fur.*

- If you are allergic to feathers, do not sleep with a *feather pillow* or down comforter for at least a week after LDA. Use a cotton or foam pillow.
- Do not have LDA if you are trying to get pregnant within 2 weeks of the injection.

### **Exertion & Temperature Do's and Don'ts**

#### ***For one week after LDA:***

- Do not take a sauna
- Do not do *excessive sunbathing*. Sunbathing more than 5 days before LDA is likely to be an advantage (enhances Vitamin D production in the skin).
- You may use ChapStick® during the three critical days, but probably best to avoid it on the day of LDA.
- You may wear make-up during this time

Do your best to avoid *high concentrations* of mold spores indoors: mold floats indefinitely in the air inside houses that are damp, suffer from condensation, smell musty or even have had a leak or water damage in the past. Keeping the door of a damp room or cellar shut is not likely to give effective protection, since the spores float so well in the air. If you have a mold problem, keep windows open night and day while you are in the house, if possible, to reduce your exposure. It is sometimes best to stay at a friend's dry, modern, mold-free house with no pets for the day before, the day of and the day after LDA. *If your house is extremely damp and there has been any evidence of mold, you should try very hard to get away from it during this time.* Don't worry about outside mold.

### **Food, Pollen and Mold Cross-Reactions**

Patients who suffer from allergy to tree pollens, especially birch or ironwood, *must not eat nuts, fresh apples and oranges, raw carrots or celery* for about a week after LDA, if those pollens are in season in your part of the country (spring). Mold spore allergens

from different species may cross-react with LDA. If you are allergic to inhaled mold spores, avoid tea, cheese, and other fermented or aged foods for 10 days after LDA if possible. If the desensitization is unsuccessful, discuss the use of an antifungal regime for your next LDA treatment with the doctor.

**Level 2: Guidelines for Patients with Food and Other More Complex Problems (in addition to, or instead of seasonal allergy) Note: Most patients are in the Level 2 category.**

If you are a patient who has intestinal, food issues or autoimmune disease, may or may not have pollen allergy, and do not have *significant* chemical sensitivity, *the guidelines you will follow appear in this section.*

Also, if you think you only have pollen allergy and you have a sub-optimal response to LDA on the Level 1 regimen, you must strongly consider following more of the Level 2 or 3 guidelines in this booklet. If you're not sure which category you belong, discuss it with the doctor.

**So, if you have problems other than simple hay fever, you must follow all Level 1 guidelines, AND in addition, it's a good idea to:**

**Before LDA:**

- **Again, you must also follow all Level 1 guidelines**
- Take a good multivitamin/mineral supplement, approved for LDA (less than 500 mg. of Vit. C – not during the three critical days).
- Use an appropriate bowel preparation for candida, if determined necessary by the doctor. **If you have toenail or fingernail fungus, tell your doctor!**
- Take zinc 20-30 mg. daily, in *addition* to the amount you may be receiving in your multiple vitamins for a week before and three weeks after LDA.
- Take magnesium (citrate or glycerinate, preferably), 200 mg./day in *addition* to the magnesium you may be receiving in your multiple vitamins, for a week before and three weeks after LDA.

**On the day of LDA:**

- \* Do not wear lipstick or eye-liner (or any make-up that might get in your eyes) on the day of LDA.
- \* *Do not put anything in your mouth except the foods permitted on the LDA diet*

**Critical three days:**

- \* **Follow the LDA Diet**

- \* Do not use ChapStick® or other lip balm on the day of LDA.
- \* Use *unscented soap* only.
- \* Use unscented *shampoo and conditioner*.
- \* Do not use *toothpaste*. Use pure baking soda instead.
- \* *Sexual activity* may be a problem, especially in women, since they risk sensitization to their husbands' semen. This seems a particular risk for eczema sufferers. *Intercourse probably should be avoided for the critical 3 days of LDA therapy.*
- \* Minimize your exposure to animals, perfumes, aerosols, sprays, painting, etc.
- \* Never take any vitamins, minerals or other supplements during the three critical days, and only take meds you discuss with your physician.

### **After LDA**

- \* Avoid foods that have caused you to have *significant* symptoms in the past for *three weeks after LDA*. *This does not necessarily include foods for which you had a positive blood test unless you know you react badly to them.*
- \* Optional: Folic Acid, 10 mg. daily, may be taken to attempt to enhance the effect of LDA for 30 days after LDA (side effect: possible nausea, so take with meals).

### **Vitamin and Mineral Supplements**

Certain vitamin and mineral supplements theoretically improve the effect of LDA. *These supplements act primarily by affecting the T-cell receptor sites we are stimulating.* The following recommendations for supplements may be important for patients who have moderate to severe problems. These should be taken along with an approved multivitamin and mineral. Patients with milder problems, and kids under the age of 12 generally do not require these supplements. Patients with mild problems should probably only take the supplements directed. Discuss this with the doctor if you aren't sure whether you should take any or all of these supplements. Vitamin D seems particularly important, and all adults should probably take 2000 to 3000 IU per day.

**Level 3: Guidelines for Patients Who Have Significant Chemical Sensitivity (in addition to, or instead of the preceding problems). This is the least common Level.** Level 1 and Level 2 patients do NOT need to follow these following

guidelines, so if you do not have significant chemical sensitivity, **skip to “LDA: Reactions and Side Effects”**.

Those of you with *significant* chemical problems should follow all of the preceding instructions in this booklet for Level 1 and Level 2 patients. “Significant” means that you are made ill for day or more when you are around perfumes or other scented agents, you probably can’t go to the store without becoming ill, or your *primary* problems have to do with exposure to various chemicals. In addition, our advice is that you follow the remainder of these guidelines in this booklet as closely as possible, at least for the first several injections. Later on, especially after you've had 6-8 injections, you might be able to be less careful about these rules.

You should do as well as you are able to adhere to the instructions without totally disrupting your life. *Whether you do or you do not have chemical sensitivity, mild chemical exposures or chemical exposures for a brief time will not affect your LDA.*

In addition to **Level 1 and 2** guidelines, you should also do the following:

***For at least 12 hours before and 2 days after LDA (preferably 3 days after):***

- \* Do not read the *newspapers*, glossy magazines, or new books.
- \* Use no *insecticides* that produce vapor or might be breathed in: sprays, aerosols, etc. Use traps or bait if you must have insect control.
- \* For cockroaches, etc., use boric acid and put it in the cracks under the skirting or molding, etc., where the insects hide. The protection is long lasting and unlikely to cause problems.

**For the Three Critical Days:**

- \* Avoid ointments, creams and lotions on any part of the body, *especially* anywhere near the site(s) of the injection(s). This includes "homeopathic" creams and ointments, as many contain agents that are problematic.
- \* Use no *aerosols*, spray polishes or perfumed sprays.
- \* Use no *scents* (*perfumes, etc.*) or air fresheners of any kind.
- \* No *chemical deodorants*. Use a mineral rock crystal (such as The Body Crystal<sup>®</sup>) or baking soda during this time. At other times, use "natural," non-aerosol deodorants made *without aluminum compounds* (look in health food stores).

- \* *Makeup* should not be used during these three days. If you choose to use it, it should be kept to the absolute minimum, not perfumed, and not near the eyes. Use only non-scented, "hypoallergenic" types. You run the risk of becoming sensitized to makeup if you are sensitive.
- \* No *bath oil, liquid soap, dishwashing or laundry liquid/powder*, especially on the hand of the treated arm. Use plastic or vinyl -- not latex -- gloves for unavoidable washing dishes, etc. (many physicians have these available for purchase in their offices).
- \* No *hair sprays*, hair mousse, hair conditioners or hair oils.
- \* Avoid *tobacco smoke*
- \* Do not do laundry on the day of your treatment. If you do, avoid inhaling scented *washing powders, soaps, bathroom cleaners*, etc. You can avoid scented *laundry detergents* and scented *fabric softener* if you use unscented agents, such as Downy Free<sup>®</sup> and Cheer Free<sup>®</sup> or other natural detergent.

***For one week after LDA:***

- \* If you have a hypoallergenic lotion you use that you know is safe, you could begin to use it after the critical three-day period. Some patients, however, will have a problem if these are used in the week after the three critical days, so be cautious.

These restrictions may be difficult for patients with eczema. Discuss this with the doctor.

**Two to Three Weeks After LDA**

- Avoid *new carpets*, new vinyl wallpaper, smelly plastic sheeting (new shower curtains, etc.), and new furniture.
- \* Avoid smelly or *new paint*. The newer latex paints may be OK.
- \* Avoid *insecticides* that produce vapor or might be breathed in: sprays, aerosols, etc. Use traps or bait if you must have insect control.
- \* Avoid situations where you cannot control your environment, such as attending parties, going to church (perfume exposure), entering department stores, etc.
- \* No medicated shampoos for 2 weeks after LDA!

***For one week before and two weeks after LDA:***

- \* No *permanent waving, hair coloring* or other extensive hair treatment. Hairdressers' salons are always full of scents and fumes. Avoid totally during this time.

### **Transportation**

Since many patients travel to get their LDA injections, the question of transportation arises. We have found, even with patients with fairly severe chemical sensitivity, brief exposure to exhaust fumes from cars, busses, etc., don't seem to interfere with LDA. However, it would seem wise to take the following precautions:

- \* Don't sit next to a smoker or ride in a car with someone smoking, or with someone wearing perfume or heavily scented agents.
- \* Avoid traveling in new cars; it's preferable to travel in an older car with an air recirculation system.
- \* If you travel by air and have severe chemical problems, it would be wise to wear a chemical-type respirator in the airport if necessary, in jet-ways while disembarking and in the planes themselves until at least 5 minutes after takeoff.

### **Hotels/Motels**

One of the greatest problems for our patients from "out of town" with severe adverse reactions to chemicals/"MCS" is finding a "safe" place to stay. Usually one of the office staff can direct you to the most chemically free hotel(s) in the vicinity. If worse comes to worst, some of you may even need to "camp out" during the 3 critical days in those areas of the country where temperature allows.

The rules and regulations regarding LDA are summarized in a chart that will be available from our office and appear in this booklet.

### **About Your Workplace During LDA Treatment (Level 3 ONLY)**

#### **Chemicals at Work – for Patients Sensitive to Chemicals**

If you have a history of problems with adverse reactions to things in your work or home environment, you must use caution when returning. If, for example, smoking is allowed in your workplace and you have had significant problems when exposed to

smoke, you need to stay away from work on the day of the injection, and preferably at least the day after. Two days after would be even better.

Work hazards that often cause problems for patients are some of the following: perfumes, cigarette smoke, sick buildings, industrial complexes which produce products with significant chemical odors, or those using chemicals, such as print shops, foundries, welding, soldering, etc.

If your office is a *small, enclosed space (without a window to the outside)* with a *new computer, a fax machine, blueprint machine, laser printer or copier*, it is best for you to avoid it for at least 24 hours after the first few injections. 2 days' avoidance after LDA would be best for the first three injections.

A good rule of thumb would be to try to have your LDA injection near a weekend for the first 3 injections. If you are chemically sensitive and work with many of the materials mentioned above, it would be a good idea to do this for the first year of therapy.

Some patients may experience an immediate "panic"-type response when exposed to some chemicals. If this occurs after an injection, it doesn't usually mean enough of the chemical has been absorbed to upset LDA, providing you can remove yourself from the chemical after a brief exposure.

Basically, patients *who know they are upset by allergens or chemicals at work* should not return to it for at least 24 hours (and preferably 2 days -- but that's often not possible) after an LDA treatment.

**Note: Remember, if you are not *significantly* sensitive to chemicals, you do not need to follow Level 3 guidelines above. However, a *prolonged* or *heavy* exposure to any chemical could adversely affect the response to LDA in *any* patient.**

This is the end of the section discussing "levels".

Many of these guidelines seem pretty harsh, even to me! My advice is that you just do the best you can with them, depending into which category you fall. Remember, these are *guidelines* to try to achieve the best possible response to your LDA treatment. If you don't follow them and your treatment fails, or you become more sensitive to an allergen or chemical, just try to narrow down what you did wrong and do better next time.

## **LDA: Reactions and Side Effects**

### *Immediate and Local Reactions*

Most reactions to LDA consist of local redness and swelling. The doses of allergens contained in LDA are so small that the chance of a *true* acute generalized allergic reaction is so extremely remote that it has never occurred. Immediate reactions to the inhalant component of LDA (I or IC), with swelling of the entire forearm do occur occasionally. These may be treated with a cold cloth. Do not use ice!

Although rare, swelling involving a whole forearm is the major *significant* local reaction after LDA. A local reaction is generally associated with a good immunological

response. It should *not* be treated, but, if severe, **Tofranil**<sup>®</sup> (or generic imiprimine) should be tried. Before you take *any* medication after an LDA injection, contact the doctor's office if this should happen. *Do not use any local treatment on the swelling besides a cold compress!* Continue to use the arm normally.

Local reactions rarely persist for more than 3 days and should be subsiding noticeably by the fourth day. Occasionally, the site(s) of the injection(s) may become inflamed off and on for 3-4 weeks after an LDA injection. This probably indicates *exposure to allergens* in the LDA mixture. If local reactions are recurrent and significant, preparation with a low dose of prednisone may be helpful.

Prudence dictates that all patients who receive treatment with LDA must remain under observation in the office for 20-30 minutes, at least after their first few treatments.

### *Delayed Reactions*

Delayed reactions are unpredictable but not uncommon with LDA. They may start between 2 hours and 5 days after a treatment. They usually last a few days, very occasionally up to 3-4 weeks, and *very rarely* for up to 2 months. When they occur, these reactions happen usually after the first LDA treatment and diminish with successive treatments. However, a delayed reaction may develop after any dose of LDA, but subsequent doses may often cause no reaction. These reactions are usually a good sign since they are generally followed by a favorable response to treatment.

The symptoms are usually a temporary return of the allergy symptoms that are being treated. They should be controlled with **Tofranil**<sup>®</sup> (or generic **imiprimine**) when possible, or by avoidance of the offending allergens (if known) until the reaction subsides. *Never use decongestants or antihistamines* for 3 weeks after LDA. When in doubt about a medication, *ask!*

These symptoms almost never require more treatment, although they may seem worse than the original illness. Please remember not to panic if you feel like you have the "flu" for a few days after your LDA treatment, since this may happen.

Very rarely, a delayed reaction takes the form of an allergic response you have not normally experienced, usually a stuffy or runny nose or hives. This is likely to be mild and transient.

Some patients develop *headaches* within a few days after LDA. *Do not take aspirin* or any other pain reliever, since these will *wipe out* the effectiveness of the shot. Please ask the office staff or the doctor about headache treatment alternatives.

### *Delayed or Immediate Depression*

This is rare, but has been known to occur after an LDA injection. It usually begins 1-3 days after an injection, but may begin several weeks after an injection. It may persist from 3 days to one month, rarely longer. *If you have any history of a tendency towards depression*, a single dose of imiprimine, 25 mg. should be taken 5 minutes before at least your first 1-3 LDA injections. If you experience this type of reaction after an LDA treatment, the same treatment prior to your next injection likely will block this response. Imiprimine does not interfere with your shot when taken at this time. If you are known to be extremely sensitive to tricyclic antidepressants or any medications, the dose might best be 10 mg.

If the imiprimine is taken even as late as half an hour after an LDA treatment, it won't work for this delayed-onset depression, so be sure to ask the doctor to give you a prescription so you can bring the medicine with you for your injection.

Imiprimine also works as the best substitute for antihistamines in the three week period after LDA when regular antihistamines are not allowed. So don't forget to get a prescription for it if you commonly have these symptoms and need relief during this time. If you are male and have prostate issues, imiprimine will likely make those worse.

If LDA caused you to be more depressed than usual, you may take it (25 mg.) up to three times daily at any time after LDA.

For rare patients, imiprimine could cause agitation, insomnia or other unusual symptoms, especially if you react badly to antihistamines in general. If this happens, STOP the medication and contact your LDA physician.

## Circumstances When You Should NOT Receive an LDA Treatment

### Do NOT Have a Dose of LDA

- If you are *significantly* allergic to a *specific spring or fall* pollen, and your shot is within about a week of either side of the *peak* of that specific pollen season.
- If you have a chronic toenail or fingernail fungal infection and you haven't taken an azole antifungal in preparation for your LDA treatment
- If you are in the *first three days of a cold*, have any *other infection* or suspect that you might be developing one. Use whatever natural agents (chymotrypsin, echinacea, propolis, etc.) you can to treat the infection, and if they fail, you may need an antibiotic. If you are given an antibiotic, be sure to take nystatin with it. If you can get over the infection in time, you may still be able to receive LDA.
- If you are pregnant or think you *might* be *pregnant*. If you are trying to have a baby, plan on receiving your LDA treatment only during the first two weeks after a period, if possible. If you become pregnant on LDA, advise your doctor. There have been many pregnant women who have received LDA without any adverse effects. On the other hand, pregnancy generally carries more risk than a "normal" state, so we feel it would be unwise to do LDA during pregnancy.
- If you have *taken any pain killer* like aspirin or **Tylenol**<sup>®</sup>, NSAIDS or others in the past four days (*don't take any for the next three weeks, either*).
- If you have *just been immunized* (See "Rules for Immunization and Malaria Prevention").
- If you are taking any of the drugs which might upset LDA (see text, chart and specific drug interactions).
- If you have had dental work *with a local anesthetic* (fillings, etc.) 3 days before LDA, or you plan it within 2 weeks after LDA. Cleaning, small fillings without anesthetic or checkups at the dentist's office are OK.
- If you are *food allergic or intolerant* and have not dieted as instructed before the dose.

If you take large doses (5-20 grams or more daily) of Vitamin C as a routine before you start LDA, you should taper it down to 3 grams or less during the 2 weeks prior to LDA therapy. Do not stop it abruptly, or you'll likely have withdrawal symptoms.

### *Drugs Often Interact with LDA*

*No drugs, vitamins or herbs, except as listed in this booklet or specifically given to you as part of an LDA prep or bowel protocol, or those you specifically discuss with the doctor, should be taken the day before, the day of or the day after LDA. This applies to everyone who receives LDA unless specifically advised by your physician.*

### *Food Guidance for Patients with Moderate to Severe Food Allergy or Intolerance*

At the time LDA is given to some patients, and *up to three weeks afterwards*, doses of allergen from a food that has been eaten may cause increased sensitivity to that food. And since *many* food allergens cross-react, exposure to the wrong foods, certainly during the 3 critical days, but possibly in the three weeks after LDA (as the lymphocytes are maturing), may be harmful. Patients have sensitized to a *wide variety* of other foods, pollens and molds when they have done this. Dr. McEwen very carefully selected the foods for the LDA diet to avoid cross-sensitization to multiple allergens.

Therefore, you should definitely avoid the foods to which you *know* you are intolerant or allergic (foods that have caused symptoms *any time* you've eaten them in the past) for the *three-week* period after LDA. If you have severe food problems, the doctor or one of the staff may discuss a different elimination diet you should follow before and after the 3 critical days of LDA. The doctor may combine one or two diets for you to follow at this time.

It has remained the policy in our office that all patients with other than simple hay fever must follow the Basic LDA Diet. The exception is the select group of children with autism, who simply cannot do the LDA diet with any success. Your doctor may have another policy.

**We now know from experience that LDA will always fail for eczema of any variety, anaphylaxis, hives, angioedema (swelling of the mouth or lips) if the LDA diet is not followed.**

Significantly autistic children, generally speaking, will only eat specific foods and nothing else. They'd literally rather starve. In these instances, the benefits of LDA likely considerably outweigh the potential harm of not following the diet. In those instances, I've always given LDA anyway, no matter what these kids may be eating. The treatment has appeared to work. If the treatment fails, at least we've tried.

In recent years, I've heard of adults not following the LDA diet and doing well. There will be more discussion about this, since certainly LDA would be much easier without having to "do the diet". My advice to most patients is that they should follow the diet strictly for the first several LDA treatments, if they have food problems. Later on, it might be OK to try to add a few foods to the diet. If you try this, be aware that your LDA may not work as well, and you will need to switch back to following the diet.

### **Fasting**

The LDA diet contains every food that has been shown to be safe with LDA. However, some extremely food-intolerant patients are sensitive to some or all of the foods on the diet. These patients have no choice but to fast for *24 hours before and 24 hours after LDA* for the first few injections. Once LDA enhances food tolerance, patients who have had to fast are usually able to eat at least some of the LDA Diet foods. I have not seen problems with fasting, and I recommend it on the day of LDA for all adult patients who don't tolerate the foods on the LDA diet.

### **After the LDA Diet**

Most patients with food sensitivities must simply avoid the foods to which they know they are allergic or intolerant as much as possible for the three weeks after LDA. This does *not* mean foods that may just have been positive as a result of a blood test, and the patient has never physically tested (challenged after a 6-7 day elimination) - only foods that are *known* to cause symptoms when eaten.

If you don't have major food problems, you may begin adding regular foods after the critical three days. However, if you do have *severe* food problems, for the next 5 days after the 3-day LDA Diet, it is best to count the LDA Diet foods as safe and then add *small amounts* of a *wide variety* of "rare" foods, preferably ones which have not generally caused you to have symptoms in the past, or foods you have rarely or never eaten.

The amounts of added foods can be increased over the next week. After that time, regular foods may be added back and should be tolerated much more easily. *Very few patients must resort to this.* As time goes on, the necessity for avoidance of foods lessens. The doctor or staff will advise you how to do this, if it is necessary.

Reminder: *all* patients must avoid more than very small amounts of alcohol for 10 days after LDA.

### **Unmasking, Rotation Diets and the Very Mixed Diet**

**The primary side effect of LDA for patients with food sensitivity may be “unmasking”.** *With LDA immunotherapy, things you think you know about your foods, both "safe" and "unsafe," may change.* Many patients with significant food sensitivity are allergic or intolerant to most of the foods they eat every day, but these foods are “masked”. They usually cause minor symptoms, up and down, but patients don’t attribute their symptoms to any particular food(s).

After one to three LDA injections (most often after 2-3), this food tolerance curve may shift. Then foods that you had previously eaten in large quantities (perhaps even in rotation) will sometimes make you ill if you attempt to eat the same quantity (or even less) of those foods as you have in the past during the 3-4 weeks after LDA. This is called "unmasking", and LDA can cause it to happen. Likewise, foods that made you ill before LDA in very small quantities should become more tolerable as time goes on. This confuses people who have been on rotation, but is a natural progression of LDA.

Patients who unmask to foods may complain that they have "lost" foods or have "become sensitive" to foods after two to three LDA injections, because of this shift of the food tolerance curve. This almost always stops occurring to any major degree after about the 6th injection. When it does happen, it generally occurs for one to three injections, and symptoms can last for one to four weeks.

Although this type of problem is not extremely common, the best suggestion to deal with unmasking caused by LDA is the Very Mixed Diet (VMD). This consists of eating very small quantities of multiple foods, usually on a daily basis. Your physician's office may have copies of the VMD booklet. If not, it is available from the author, Nikki Dumke, at Allergy Adapt, 1877 Polk Ave., Louisville, CO, 80027 ([www.food-allergy.org](http://www.food-allergy.org)). Here, even rotation will often fail.

*You should know that if you persist in eating large quantities of your previously "safe" foods that begin to cause you to have symptoms after a few injections of LDA, you will likely continue to have symptoms. This will often delay or destroy the desensitization to those foods that LDA would normally produce. You may have to change your diet and your thinking temporarily. If this should happen, I can assure you that this will go away, but the longer you do it, and the larger quantities of these foods you eat, the longer it will last.*

So some patients who experience unmasking may need to vary the diet *with large varieties and much smaller quantities of low-allergenicity foods*, usually with the second or third LDA injections, and sometimes longer, during the three weeks after LDA. You need to try to do this early in therapy if previously tolerated foods suddenly began making you ill -- sometimes for 3 to 4 weeks after an injection. The need to do this diminishes with further injections.

We advise our patients with severe food intolerance or allergy who experience unmasking with LDA to eat very tiny quantities (tsp. to Tbsp. amounts at each meal) of a wide variety of low-allergenicity foods, or of foods they seem to tolerate. Since patients then are not able to rotate on a 4-5-day basis (because they "use up" their tolerable foods quickly), they then may not be able to rotate foods at all during this time.

Fortunately, this issue of unmasking is ultimately self-correcting, and the need to do either diet is rare and always temporary. The usual is for three to four weeks after their second and/or third treatment, and lessening up to the first 6 treatments. Rarely, unmasking may begin after the first LDA treatment.

However, you should get away from the idea of eating "mono" diets or large quantities of foods in rotation. Remember, after even one LDA injection, your food tolerance curve begins shifting, and some patients complain that they've lost many of the foods which were previously safe for them to eat. Again, stick with the program, do your best to make it work, and LDA should come through for you quite well indeed.

*It's critical to remember that if you should have an adverse reaction to one of the first few LDA injections, YOU SHOULD NOT STOP LDA.* The doctor should be able to figure out the problem and treat it appropriately for your next treatment.

As LDA gains effect with additional treatments, you should be able to eat larger quantities of most all varieties of foods. If you had to rotate foods before you began LDA

treatment, rotation should become less and less necessary. Remember, rotation - if you eat *large quantities of single foods* - could interfere with LDA and make you ill.

### **Food Idiosyncrasies**

For most patients, after six to eight injections or so, the full effects of LDA may not begin until about three to four weeks after the shot. In the 3 weeks preceding that, you may be upset by foods that will be safe *after* that three-week period. Also, in the first week or two, you may feel you experience odd symptoms after LDA. Don't assume your symptoms are necessarily being caused by the diet you are eating after LDA, since patients can experience almost any symptoms conceivable while the T-cells are maturing. These odd symptoms may occur after almost *any* injection, even if you've had a dozen or so. They are temporary.

### **Boosting Tolerance**

We advise all of you, after three LDA treatments, to begin adding *small amounts* of foods to which you were previously significantly sensitive. Adding these foods, beginning 3 weeks after LDA, will encourage tolerance. If you have a significant reaction to a particular food, wait until the next shot to challenge that food only, but you may try other foods that may result in a better response. *If you continue to avoid these foods, you may never desensitize to them.*

**Remember that the whole idea of LDA for food-sensitive patients is to allow you to eat more foods. Patients who persist in avoiding all of their previously avoided foods generally will not do well on LDA. Variety is critical, and when you become tolerant to a new food, try not to abuse it by eating it every day or very frequently.**

Once LDA has taken *full* effect (probably two years for most), you may be able to eat as much of any food as you want. Nevertheless, when you have your LDA injection, it may be necessary to avoid foods that you know caused previous *significant* reactions, such as gluten or milk protein foods, so that LDA can maximally boost your tolerance over time. Rarely, patients will fail to desensitize to a few foods if they try to eat them in unlimited quantity.

## **Stimulant Beverages**

Many food-sensitive people feel that tea, cola beverages and coffee do not upset them, but all contain important allergens, such as caffeine and the methyl xanthine group of chemicals, which *must be avoided at the time of LDA*. This often leads to a severe withdrawal headache when they are stopped abruptly. If this happens, there are *almost no* medications you are allowed to take for headaches due to caffeine withdrawal or pain (*pure* caffeine compounded in tapioca starch is the exception, and your physician may prescribe these for you). To avoid withdrawal, reduce the consumption of tea, cola, coffee and all caffeine-containing beverages, perhaps switching to decaffeinated types, and *stop altogether* several days before LDA. Some LDA Physicians have caffeine capsules in tapioca starch. These may be taken during the three critical days.

## **Vitamin C**

Vitamin C could interfere with LDA, although this is not at all clear. It is best to take less than 500 mg. of Vitamin C daily for the 3 weeks after LDA. The dose may then be increased up to 1-3 grams per day.

IV (intravenous) or IM (intramuscular) therapy with certain nutrients may enhance the response to LDA. This treatment may consist of an IV dose containing zinc, folic acid, vitamin-B complex, magnesium, molybdenum, B-6 and perhaps others, or an IM injection of B-12 and/or magnesium and possibly other vitamins. Most patients who receive this type of adjunctive therapy seem to note a difference with it. It is not generally recommended for children under the age of 12.

IV therapy is generally given once, usually on the day of LDA treatment. The IV drip process can take up to an hour (bring something to read!). If you wish to try this treatment adjunct, ask your doctor. Not all LDA Physicians offer this option.

Current data indicates that patients who receive IV or IM therapy with nutrients around the time of their LDA injection often feel better initially and have less fatigue. Only time and more research will show how much IV or IM therapy with vitamins and minerals helps the effect of LDA. We are aware that any IV therapy adds a cost to LDA treatment. Since it appears that an intramuscular (IM) injection of magnesium and B-12 *on the day of the LDA injection* may help, this option would be the least expensive.

## **LDA and Gluten Sensitivity**

If you have true gluten *toxicity* (**true celiac disease**), *LDA will not desensitize you to foods containing gluten*. The physiological mechanism for gluten is different from most other foods, since gluten acts as a toxin for some. Fortunately, most patients with food sensitivity have problems primarily with wheat and not usually with gluten, though they could be sensitive to gluten. Blood tests are easy to obtain, and there seems to be an increase in the number of patients who are testing positive to various components of gluten. Fortunately, this is almost never true celiac disease, and LDA does benefit patients with gluten *sensitivity*, the only reliable way to diagnose true celiac disease, (gluten *toxicity*) is with an intestinal biopsy. Personally, I wouldn't do that.

However, gluten "sensitivity" is increasing in the population. After two years of treatment with LDA, if you find you cannot eat wheat and other grains containing gluten without getting ill, unfortunately it's likely you never will.

## **The Gut and LDA**

### *Candida: Gut Preparation and Antifungals*

Some patients have a true allergy or immunological interference from the group of *candida* organisms. There are a growing number of tests available to detect candida. However, the only true test of the "Yeast Syndrome," as Dr. William Crook stated in his first book, *The Yeast Connection*, is a "trial of therapy." This consists of a trial of an antifungal (nystatin, Diflucan, etc.) for a period of time to see if it improves your symptoms. Going on an "anti-candida" diet alone may well improve one's symptoms, but it absolutely does not prove that *candida* is the problem – it is often food intolerance, and most often to sugar.

When LDA therapy is given, *true* candida problems can interfere with the treatment. Therefore, at some point prior to your first injection, your physician may want to determine whether indeed you respond to an antifungal medication. If you do respond, *or you know you have responded well to an antifungal in the past*, an antifungal may be given to you prior to the first several LDA injections.

The antifungals usually used are **Diflucan®**, **Sporanox®**, **Nizoral®**, **Voriconazole®** (all azoles), **nystatin or amphotericin**, and a few others.

If you have a fungal infection of your fingernails or (more commonly) toenails (onychomycosis), it means your immune system is not doing a good job protecting you from these common fungi. If you have this problem, **it is imperative that you receive a potent antifungal – one of the azoles above – for 7 days prior to your first several LDA treatments.** LDA will indeed cure these very difficult and chronic nail bed infections. It usually takes 6-9 months for the fungus to vanish, occasionally less. I strongly recommend that you take an azole for the first 3-4 treatments, and then you could go to nystatin. We use azoles in children only with considerable caution.

At the beginning of antifungal therapy, the bacterial and fungal organisms die and release toxic products into the bloodstream that persist for 2-3 days, and you may feel unwell or even terrible for that time. If symptoms persist longer than that, you will need to try usually a weaker product, such as those found at the health food store. If an antifungal product makes you feel significantly better (without having to use an anti-yeast diet, that is probably good enough for a routine candida prep (no onychomycosis). If you are supposed to take an antifungal prior to your LDA treatment, you must follow these guidelines:

- \* Antifungal medications should ideally begin 7 days prior to LDA (taking them longer increases the risk of resistant organisms).
- \* Some patients may need to continue this therapy after an LDA injection. If so, you must resume the treatment within 24 hours after the injection, so there is no time for the organisms to reestablish themselves. Otherwise you need to wait for 3 weeks before starting antifungals again.

If you are receiving an *antifungal medication*, make sure you take it for the prescribed number of days *before* and – if so advised – *after* receiving LDA. We usually skip the day of LDA. Some patients may need to take an antifungal medication for longer periods (discuss with the doctor).

***Milk thistle, 450-1000 mg daily: It is paramount any patients on the azole antifungals listed above, except for nystatin and amphotericin, take milk thistle (silymarin) during that time, and continue it for a week after stopping.*** This helps

the liver detoxify the antifungal medications. Do not take this during the three critical days. You should have a liver function test prior to taking any azole.

Some patients need an antifungal regimen off and on to feel well. There is no rhyme or reason to this, but as long as you can take any of these medications off and on and feel better, you likely need them. Once you take them and feel no differently, there is likely no longer a need to continue them (except for fingernail or toenail fungus).

If you take any antifungal medication for longer than 10 days, resistant yeast may develop. It's best to rotate them. *Always take milk thistle with the azoles.* Rarely, certain patients may require combinations of antifungal medications.

## **Asthma, Eczema, ADHD, Autism and PANDAS**

### **Asthma**

If you have significant asthma, you will find it very difficult to avoid asthma inhalers. Ideally, *large* doses of these inhalers should be avoided for the full 3 weeks after LDA. This is, of course, usually very difficult, but often a substitution of a theophylline compound should reduce the need for inhalers during this period. Moderate doses of inhalers for asthma (e.g. 2 puffs three times daily) should not likely cause severe interference (except for the critical days mentioned below). Fortunately, once LDA starts working, the need for these medications is usually diminished or eliminated anyway, especially for younger patients. Diet is often a major factor in asthma, and strict dieting or fasting is often extremely helpful in controlling symptoms.

The critical period to avoid inhalers (both inhaled bronchial dilators and inhaled steroids) is *the day before LDA, the day of LDA and 2 days after LDA*. This can usually be accomplished by taking a short course or "burst" of prednisone, beginning 2 days prior to LDA therapy, in a decreasing dose format after treatment. Prednisone in doses under 40 mg. does not interfere with LDA, even when taken on the day of the injection. Also, theophylline does not interfere with LDA, and may be taken during the critical 3 days if necessary. Theophylline is far preferable to inhalers during the critical days around LDA. The doctor will discuss this schedule with you if needed.

The newer (longer acting) inhalers (**Tilade<sup>®</sup>, Seravent<sup>®</sup> and all similar medications**), and the leukotriene inhibitory drugs (discussed later) interfere quite

severely with LDA, and should be discontinued at least 7 days prior to LDA, and ideally not resumed until 3 weeks after LDA.

All asthmatics would be well advised to follow the prednisone schedule for the first two to four LDA injections. After that time, it is often not necessary. Cortef in most any dose may not work as a substitute, but is safe.

NOTE: Do not use **Prelone**<sup>®</sup> syrup, which contains sugars, colorings and additives. Just crush up prednisone tablets in the dosage advised by your physician – they are tasteless.

### **Eczema**

LDA works extremely well for eczema and hives (urticaria). During LDA treatment for eczema, there will likely be a number of "ups and downs" up with the first 3 to 6 injections. Once the LDA treatment has become established, fluctuations become much less. However, some patients with eczema or hives must have patience, as some varieties are slower to respond. Exacerbations after an LDA injection are not uncommon and may occur even after response has been consistently good.

Therefore, patients with significant eczema require pretreatment with prednisone, at least for the first 2 to 4 injections. Remember, the LDA Diet is critical for patients with eczema.

### **Hyperactivity (ADHD, ADD)**

The success of LDA for hyperactivity may be quite good. Understand that LDA may make hyperactivity symptoms worse after an injection – especially the first two or three – and especially 4-72 hours after.

Drugs for ADHD, such as **Ritalin**<sup>®</sup> **Concerta**<sup>®</sup>, **Stratera**<sup>®</sup>, **Adderall**<sup>®</sup>, etc. should be discontinued around the time of treatment, ideally 4 days before and 3 weeks after an LDA injection. We know very well that sometimes this is not possible. If not, we advise patients to try LDA in any case. The worst it could do is fail. I have not seen sensitization to these medications if continued through LDA.

For ADHD, LDA may not begin to take effect until the 6th injection, although some significant response generally occurs much sooner. Patients will be rewarded, as the

success rate can be expected to be 80% or better, especially for patients who have any obvious allergy or food intolerance.

Since diet usually plays a very important role in the cause of ADHD, care must be taken around the time of the injection. Diet work should be done to determine significant offending foods prior to the first injection. These foods should become more tolerable as therapy continues, but when injections wear off (as the first several will), it will be important that these foods be eliminated until the next injection, in order to maintain tranquility. Sugar *in any form* is usually the most common offender, with preservatives, food coloring and specific foods next.

### **Autism**

LDA is being used more and more, with considerable success, for children with autism. If your child has any type of autistic spectrum disorder, LDA may well change your lives. This is especially true if your child has intestinal issues (diarrhea, constipation, “gut” problems of any kind) or obviously reacts badly to any food or foods that you have identified (don’t rely on food testing with a blood test – not very accurate).

The main problem in treating autistic children is the LDA Diet. Many simply cannot (or will not) do it. There is at least one physician using LDA who has treated many autistic children *without using the LDA Diet*, and feels his success rate is significant.

So the bottom line, for now, is that we are advising parents of autistic children to try doing LDA with the diet, but if it’s just not possible, to do LDA without the diet, but avoiding wheat and dairy (and all gluten if at all possible).

### **PANDAS**

PANDAS (Pediatric Autoimmune Neuropsychiatric Disorders Associated with Streptococcal Infections) is not an uncommon disorder, and is similar to some of the autistic spectrum disorders. It may consist of OCD, tics or unusual body movements, hyperactivity, etc. It usually occurs in childhood and is associated with one or more strep infections, often with a positive ASO titer.

LDA works well for PANDAS. The dose of LDA is one of the food mixes with inhalants and the *Strep LDA antigen*. An antibiotic or botanical prep is

needed prior to treatment. Your doctor is familiar with this treatment and can administer it if necessary.

## RULES FOR IMMUNIZATION AND MALARIA PREVENTION

If you are scheduled to receive immunizations (shots) against any of the following diseases, or are receiving anti-malarial treatment, be sure you tell the doctor. This may be required if you are going out of the country, especially to a “Third-World” country. If so, follow the schedule that follows if you will be receiving LDA.

Minimum Interval before LDA		Minimum Interval after LDA
10 days	Anti-malarial drugs, typhoid	3 weeks
10 days	Yellow Fever, cholera	2 weeks
2 weeks	Hepatitis vaccine, gamma globulin, all other vaccines not mentioned here	2 weeks
1 week	Measles, mumps,	1 week
1 week	Influenza, “Flu” shot	1 week
3 weeks	Rubella	1 week
1 week	Tetanus	1 week
3 weeks	Poliomyelitis	1 week
3 weeks	Covid 19, Covid boosters	3 weeks
1 week	All TB Tests (Mantoux, Tyne, Heaf Tests)	1 week
2 months	BCG bacillus itself	1 week
2 weeks	Bacterial vaccines (DPT, etc.)	3 weeks

## Drugs and LDA

Please note that with the number of new drugs appearing each year, it is impossible to keep up in this booklet. If a drug is not listed here, but if it is in the same “class” as a drug that is, and the old drug is known to interfere, the new drug likely will interfere in the same manner. This booklet contains all of the drugs that are known to be a problem with LDA. If you have questions, ask your doctor. The drugs here have known effects; those not listed must be considered to be wild cards.

**Be sure to tell your doctor about all drugs you are taking before you begin LDA.**

***Basic Bottom Line Rule for Drugs:* Whatever the drug in question, if it appears on this lists that follow, its effects on LDA are usually known. The first rule is: follow the rules below. The second is that if you **MUST** take your medication, our advice is to take it only if you absolutely have to (e.g. severe high blood pressure). If you can, avoid all medication for the three critical days. If not, try to avoid it at least on the *day of LDA*.**

If none of these options are possible, you must continue to take your medication. The warning here is that many drugs interfere with LDA, so if you are taking *any* drug, be sure to discuss it with your physician. You must take the responsibility that if you take *any drug listed or not listed here*, it may lessen or destroy the beneficial effect of LDA completely. Unfortunately, we are never really certain about the “newer” drugs.

If you and your doctor decide to allow you to take any of the medications below whose effects are unclear, thought to interfere or unknown, it is very important for our future knowledge that the effect or lack of effect is reported to your physician or to Dr. Shrader. Your experience with any of these drugs while you are taking LDA, especially those that are questionable, is extremely valuable to us.

The great thing about LDA is that the necessity to take drugs for most conditions LDA treats diminishes pretty rapidly. Very often, patients are

extremely worried about stopping pain meds, for example, for the three weeks after LDA. However, since even the first LDA can last for three weeks, many patients find their need for medications vanishes or diminishes during that period of time, and they had nothing to worry about. Many patients have not started LDA because of this fear, and they well could have gone ahead with it.

This does not pertain to narcotics, as these cannot be stopped abruptly without withdrawal symptoms, but it does often pertain to other medications, such as acid blockers for GERD or reflux, etc. Try not to panic about this problem: you may substitute the old antacid standbys for several weeks if needed.

### **Drugs That Interfere with LDA**

**The following drugs or substances interfere with LDA, and ideally should not be taken (except as directed below) for three days before and three weeks after LDA:**

1. **All medications for pain:** discussed below. Acupuncture and homeopathics are OK.
2. **NSAIDS (aspirin, Ibuprofen, Motrin<sup>®</sup>, Advil<sup>®</sup>, Naproxin<sup>®</sup>, Relafin<sup>®</sup> etc.) (prostaglandin inhibitors),** taken within 3 weeks after LDA may easily destroy the treatment — even one dose! Herbs containing high dose salicylates have the same problem. The only NSAID, if you absolutely have to take it through LDA time, is ketoprofen (**Orudis<sup>®</sup>**). If Orudis is taken, patients should ask the doctor how to take it around LDA; it must be taken all the way through LDA. The results may be imperfect.
3. **Cox-2 Inhibitors (Vioxx<sup>®</sup>, Celebrex<sup>®</sup> Bextra<sup>®</sup>, all others)** interfere with LDA.
4. **Tylenol<sup>®</sup>** (acetaminophen)
5. **White Willow Bark** – a salicylate – interferes the same as does aspirin

6. **Decongestants:** This includes such drugs as **Sudafed**<sup>®</sup> (pseudoephedrine) **Chlor-Trimeton**<sup>®</sup> (chlorpheniramine) and others, many which are found in combination with antihistamines. Guaifenesin (**Mucinex**<sup>®</sup>) is fine after the three critical days)
7. **Antihistamines** appear to interfere with LDA. These would include **chlorpheniramine**, **Actiphed**<sup>®</sup>, **Benedryl**<sup>®</sup> and all others. Avoid these types of antihistamines for 3 days before and 3 weeks after LDA. The only antihistamine that is safe is **Tofranil**<sup>®</sup> (**imiprimine**) 10-25 mg., 1-4 times daily (actually this drug acts as an antidepressant if used at higher dosages, and is one of the safest and “oldest” antidepressants around). It may be taken during the critical 3-day period. Quercetin is also fine, just not on the critical three days.
8. **H-1 antihistamines** (**Claritin**<sup>®</sup>, **Allegra**<sup>®</sup>, **Zyrtec**<sup>®</sup>, **others**) are unsafe if taken within **7 days** before LDA, or sooner than 3 weeks after LDA.
9. **Zyrtec**<sup>®</sup> (centriline – same type as above) -- this interferes like the others above.
10. **Beta sympathetic drugs** — generally the type used for asthma (inhaled or oral, such as **Maxaire**<sup>®</sup>, **Proventil**<sup>®</sup>, **Ventolin**<sup>®</sup>, **Albuterol**, **Alupent**<sup>®</sup>, etc.) *interfere* with LDA when used the day before, the day of, and *2 days after LDA*. For this reason, a burst of prednisone or prednisolone is used during that time (see schedule) to get patients off these drugs if at all possible. *Never* use the newer, *longer-acting* inhaled drugs, such as **Seravent**<sup>®</sup> and **Tilade**<sup>®</sup>, **Advair**<sup>®</sup>, **Symbicort**<sup>®</sup>, **Serevent**<sup>®</sup>, **Foradil**<sup>®</sup>, etc., for at least 5-7 days before or after an LDA treatment – use something else.
11. **Histamine H1 - H2 receptor blockade** – type drugs (**Zantac**<sup>®</sup>, **Tagamet**<sup>®</sup>, **Pepsid**<sup>®</sup>, **Axid**<sup>®</sup>, etc.) in the 3-week period **after** LDA will *interfere severely* with desensitization. **Protonix**<sup>®</sup>, **Aciphex**<sup>®</sup>, **Dexilant**<sup>®</sup>, **Nexium**<sup>®</sup>, **Prevacid**<sup>®</sup> and others interfere the same way. Instead take simple antacids or bicarbonate.
12. **Leucotriene receptor antagonists** (**Singulair**<sup>®</sup>, **Accolate**<sup>®</sup>, **Zyflo**<sup>®</sup> etc., for asthma and allergy, and any new ones that come on the market) **definitely** interfere with LDA and should not be taken 5 days before and until 3 weeks after LDA.
13. **Sulfa drugs:** sulfonamides, trimethoprim, or combinations of the two (**Septra**<sup>®</sup>, **Bactrim**<sup>®</sup> and others), if taken within 3 days before and three weeks after LDA.
14. **Immunosuppressants:** (5-FU, etc.), **penicillamine**, **hydroxychloroquine** (**Plaquenil**<sup>®</sup>) and **cyclophosphamide** usually block LDA. **Methotrexate** taken outside the three critical days may not.

15. **Stimulant** Drugs, such as **Ritalin<sup>®</sup>**, **Concerta<sup>®</sup>**, **Stratera<sup>®</sup>**, **Adderall<sup>®</sup>**, etc., seem to interfere with LDA immunotherapy, but this is not consistent. If a child or adult cannot stop these drugs, we suggest trying LDA anyway – it may work.
16. **Prilosec<sup>®</sup>** (omeperazole) seems to have less ill effect than other H-2 blockers and is *possibly* safe before and after LDA for patients who absolutely cannot get off anti-acid drugs. If this is done, it should be taken all through LDA (including the three critical days) and not discontinued for three weeks after LDA
17. **Anti-folate drugs**, such as *antimalerials*, trimethoprim (in **Septa<sup>®</sup>**, **Bactrim<sup>®</sup>**, **pyrimethamine**, **pemetrexed** and others) will tend to interfere with LDA. *Sulphonamide* is possibly OK (not during the critical 3 days). *Anti-epileptic* drugs may interfere as well. **Methotrexate** may not interfere if taken as far from LDA as you are able (usually taken weekly).
18. **Opiates**, such as **codeine**, **oxycodone** (such as **Percoden<sup>®</sup>**) **hydrocodone** (**Tussionex<sup>®</sup>**) and others interfere with LDA in the forms available in the U.S., and should not be taken within 3 weeks after LDA and 3 days before.
19. **Anti-malarial drugs** (quinicrine, **Atabrine<sup>®</sup>**), taken within 3 weeks after an LDA injection, will usually destroy the effect.
20. **Synthetic estrogen** (**Premarin<sup>®</sup>**) at *any* dose seems to interfere with LDA. Switch to the "natural" estrogen cream.
21. **Synthetic Progesterone** (**Provera<sup>®</sup>**, etc.) — in *any* dose interferes with LDA if taken within a *week before and 5 weeks after* a treatment! Switch over to natural progesterone cream.

Note: I haven't seen "natural" hormones interfere, and have often seen them help with difficult patients if used topically. **Oral natural progesterone may interfere.** If a patient is post-menopausal, has severe "hot flashes" or takes a high dose of estrogen (1.25 mg. or more), often we allow her to take some synthetic estrogen while she begins the natural agents (to prevent "hot flashes"), *before* she starts LDA. We then taper it off ASAP, as we build up the natural estrogens (and usually the other natural hormones). Often it seems to take the natural agents 2-4 months to take full effect. LDA may be given once the patient is entirely on natural agents.

In my office, we now routinely use "combination" natural hormones, containing estradiol, progesterone and often testosterone, either in capsules, topical cream or gel. These are available compounded by several pharmacies in any way you like, or in

- “stock concentrations.” I have not seen these interfere with LDA, pretty much no matter what the dose. In fact, I have seen these preparations boost the effect of LDA, especially in peri- or post-menopausal women. However, it is best not use these during the 3 critical days, either oral or topical preparations unless absolutely necessary. If they must be used those days, creams or gels are likely safest – but not at the sites of LDA injections. Never use the oral forms on the three critical days, and try to avoid the creams or gels on the day of LDA..
12. **Birth control pills**, any dose, will likely interfere with LDA. The exception was thought to be **Desogen**<sup>®</sup>, but I have seen failures with patients taking this BCP. **Estrace**<sup>®</sup> is likely similar – we don’t know for certain yet. All of the newest, low-dose hormone birth control pills likely have some adverse effect on LDA.
  13. **Estrogen Implants** – likely will block LDA for up to 6 months after removal.
  14. **Estrogen Patches** should not be used for the critical 3 days around LDA therapy, as sensitization to the patch is possible. They probably interfere afterwards as well, but this is not clear yet.
  15. **Danazol**<sup>®</sup> and **Lupron**<sup>®</sup> -- (for endometriosis) both block LDA, although Lupron may be less of a problem.
  16. **Gastrocrom**<sup>®</sup> (chromolyn sodium) - *not safe to use until after 3 weeks after LDA therapy for a single dose.* Exchange it for digestive enzymes. *Never use Gastrocrom/Nalcrom*<sup>®</sup> *more often than once each week at any time, even after the 3-week exclusion period.* It can destroy the effect of LDA when used more than directed above, and I think I’ve seen it interfere when used *any time* with LDA.
  17. **Cytotec**<sup>®</sup> (misoprostol) -- *if taken before* LDA, will destroy the treatment (when taken after LDA, it may enhance the action of the injection; talk with the doctor).

#### **Drugs That Will Likely Interfere with LDA:**

1. **Selective alpha blockers**, such as for hypertension (**Prazosin**<sup>®</sup>) or prostatic hypertrophy (**Proscar**<sup>®</sup>) may block LDA.
2. **MAO inhibitors**, used for depression, etc., such as **Parnate**<sup>®</sup> or **Nardil**<sup>®</sup>.
3. **Anticholinergic** drugs. In the gut, they appear OK. Used in *aerosol form* for asthma (**Atrovent**<sup>®</sup>), they interfere.

4. **Feverfew** (an herb), for the same reasons as above.
5. **Ginseng** (an herb), acts as a stimulant
6. **Fish Oil, Evening Primrose oil, flax seed oil** (GLA) and others, and **cod liver oil** taken near the time of treatment. *Fish oils* (EPA) probably should not be taken for 3 days before and 3 weeks after LDA. **Cod liver oil** should not be taken for 2 weeks before and *5 weeks after* LDA. **Flax** and all other related oils should not be taken for a week before LDA, but may be resumed in smaller doses (1 tsp./day or 500 mg./day for most of the other oils) a week after LDA, but full doses (1 TBSP. twice daily) shouldn't be taken until about 3 weeks after LDA.
7. Repeat: **Tylenol**<sup>®</sup> is *not* safe, and a *single dose within 3 weeks after LDA* can destroy the treatment.
8. **Stimulant** Drugs, such as **Ritalin**<sup>®</sup> **Concerta**<sup>®</sup>, **Stratera**<sup>®</sup>, **Adderall**<sup>®</sup>, etc., seem to interfere with LDA immunotherapy, but this is not consistent. If a child or adult cannot stop these drugs, we suggest trying LDA anyway – it may work.
9. *Possibly inhaled chromolyn sodium* (**Intal**<sup>®</sup>). If an aerosol must be used, it appears that **Intal**<sup>®</sup> inhaled powder is OK for the two days after LDA, but not on the first two of the three critical days, while aerosols are not. Prednisone, though we all don't "like" it, is the safest substitute for the asthma inhalers. Cortef usually is not sufficient.
12. Beta Blockers (**Inderol**<sup>®</sup>, **Tenormin**<sup>®</sup>, **Lopressor**<sup>®</sup>, others) — may interfere with the response to LDA. If patients are taking these for hypertension, we try to skip the 3 critical days. However, if the blood pressure problems are severe, we advise patients only not to take these on the day of LDA.
10. **Steroid inhalers**, such as **Advair**<sup>®</sup>, **Aerobid**<sup>®</sup>, **Asmanex**<sup>®</sup>, **Azmacort**<sup>®</sup>, **Dulera**<sup>®</sup>, **Flovent**<sup>®</sup>, **Pulmicort**<sup>®</sup>, **QVAR**<sup>®</sup>, etc. should be stopped the day before, the day of, and for the day after LDA. Any combination drug that includes a steroid *plus a long-acting bronchodilator* drug should be stopped for at least 7 days before and after an LDA treatment.
11. **Biologics**, such as **Xolair**<sup>®</sup>, **Dupixent**<sup>®</sup> and all other biologic, new or old, interfere and should be stopped a week before and 3 weeks after LDA, if at all possible.
12. **Over-the-counter diet pills** may destroy the effect of LDA.

13. **Talwin-NX<sup>®</sup>** (pentazocine with naltrexone) - this is *probably* OK, but we don't advise using it, if it can be avoided. Plain **Darvon** is no longer available but was safe with LDA (not the three critical days)
14. **Cortisol (Cortel<sup>®</sup>)** in dosages greater than 40 mg. if taken near the time of LDA will likely not work nearly as well as prednisone.
15. **Chromolyn sodium (DSCG)** – or **Gastrocrom<sup>®</sup>** *may* not interfere if used by *inhalation*. *However*, when used *orally* for “food allergy,” it interferes severely with the tolerization caused by LDA, and should not be used within at least 3 weeks after LDA, and may interfere if used at *any* time after LDA.

If you take a medication, herb, or other substance that you feel either helps or hinders LDA, please tell the doctor, and so we may all know about it!

### **Drugs and treatments that help, *may* help or do not interfere with LDA:**

*The following medications usually help the effectiveness of LDA; however, most should be avoided the day before, the day of, and the day after LDA except as advised by the doctor. The nutrients below are helpful and I advise all of my patients to take them. Always take a multivitamin with less than 500 mg. of Vitamin C when you take individual minerals to prevent imbalances. The dosages below are suggested in addition to your usual supplements.*

1. **Zinc** – 25-30 mg./day, a week before and three weeks after LDA
2. **Magnesium** – about 200 mg./day, a week before and three weeks after LDA
3. **Folic Acid** – Theoretically improves response to LDA, possibly because it promotes growth of T-cells. The dose is 10 mg. daily (5 mg./day for children 6-12) for a month after LDA. It is always wise to administer concomitant doses of B-12. (I favor 300-1000 mcg. of B-12 daily. If you get nauseated with folic acid, try tetrahydrofolate.
4. **Vitamin D** – alternated with vitamin A, increases receptor site and receptor site affinity on the T-cell. It is now known that most patients are Vitamin D (D<sub>3</sub>) deficient. We advise **all patients** to take 2000 – 5000 IU of Vitamin D<sub>3</sub> daily to help LDA work better. Your physician can do a blood level and advise you of the proper dose for you. **If your vitamin D level is below 20, LDA likely will not work.**

5. **Antidepressants, tranquilizers and anti-anxiety agents** such as **Paxil<sup>®</sup>**, **Prozac<sup>®</sup>**, **Zoloft<sup>®</sup>**, **Xanax<sup>®</sup>**, **Serzone<sup>®</sup>** and others probably do not interfere. Do not take these on the day of LDA and try to avoid on the day before and the day after. NEVER stop any of these drugs abruptly for longer than three days. You can stop them for three days without ill effect, since they have a long serum life, but suicide has been described in younger patients who stop these abruptly.
6. **Theophylline** -- may potentiate, or at least not harm LDA, if given in *half* the usual treatment dose during the 3 critical days (best dose is 60 mg./day). Best if few additives or excipients -- do not use the colored pills (compounded by a compounding pharmacy is ideal). This is used primarily to help eliminate the need for inhaled drugs at the time of LDA for asthmatics.
7. **Caffeine** -- in the *pure form (must be compounded in tapioca starch by a pharmacist)* is OK at the time of LDA, such as when used for caffeine withdrawal headaches (from stopping coffee too near LDA). The dose is 100-200 mg. 1 to 3 X/day, as needed (one cup of coffee is approx. 50-100 mg.). It should be taken out of the gel capsule it comes in (has a very bitter taste).
8. **Cortisone** (*prednisone or prednisolone*) and **Cortef** – Doses up to 35 mg. (or equivalent) of prednisone seem to *possibly* improve the response to LDA. It is used, however, only for patients who *require* it at the time of the injection (for eczema, asthma, arthritis, etc.) Higher doses will often have the opposite effect. Lower doses (for chronic conditions) don't seem to have any ill effect.
9. **Prostaglandin inhibitors** — If you *must* use continuous NSAID treatment during LDA for a *severe* disorder (rheumatoid arthritis, etc.), then:
  - \* **Orudis<sup>®</sup>** is the only acceptable NSAID to use in this manner, but it has a special schedule. Ask the doctor. It's still a wild card, however.
  - \* It may help to start **Cytotec<sup>®</sup>** 36 hours after LDA, 100 mcg. twice daily. Take it for 3 weeks at this dose, then go up to 200 mcg. four times daily while on **Orudis<sup>®</sup>** — for the 3 weeks after LDA, *don't EVER miss a dose of Cytotec<sup>®</sup> if you are taking it.*
10. **Intal<sup>®</sup>**, (*disodium cromoglycate, or DSCG -- NOT Tilade<sup>®</sup>*) — *inhaled*, may probably be continued. I favor this over any of the other inhaled aerosols (or powders), though I still feel there may be some interference. Hopefully, a burst of prednisone in whatever dose necessary, even if you must exceed 40 mg. daily

before LDA may be used to prevent use of inhalers (but try not to exceed 30-40 mg. on the day of LDA). *Oral DSCG (Gastrocrom<sup>®</sup>)* will kill LDA if given almost *any* time after an injection.

11. A few aspirin (5-ASA) *derivatives*, such as **Asacol<sup>®</sup>**, **Dolobid<sup>®</sup>** and others, *may* be safe as taken for inflammatory bowel disease. A few of these may be continued with LDA, but *could interfere*. The safest is probably **Asacol<sup>®</sup>**. This drug and the others, if stopped 24 hours prior to treatment, may also potentiate it. This should then be followed by oral prednisone or prednisolone for 4 weeks, rather than the 5-ASA derivatives. **Cytotec<sup>®</sup>** should be avoided in this case, as it has common intestinal side effects. You should try every diet you can think of to get off these types of drugs (the traditional “anti-yeast” diet seems to work well).
12. **Guiafenesin**, 400 mg., twice daily does not appear to interfere with LDA and is often a fair substitute for a decongestant. Avoid for the three critical days.
13. **Imiprimine (Tofranil<sup>®</sup>)** (an antihistamine/antidepressant) 10-25 mg. is safe, *even taken at the time of LDA*, when given to prevent the rare "late-phase" onset depression seen with susceptible patients. Some patients become significantly depressed almost immediately or later after an LDA injection (reason unknown), and **Imiprimine** works for this as well. The dose should be taken 5 minutes before treatment. It is also the only safe antihistamine (10-25 mg. 2-3 times daily) any time before or after LDA.
14. *Preservative-free* **Xylocaine<sup>®</sup>** nasal spray (used for migraine headaches) appears to be OK. This must be specially ordered for you by the doctor.
15. **Histamine neutralization** injections do not interfere and may be taken on the day of LDA.
16. **Naltrexone** in the low dose format used often today (1-5 mg/day) appears to be OK with LDA.

### **Drugs Whose Effects Are Unclear**

**These drugs and treatments may be OK for some patients, not OK for others, or may not interfere much with LDA:**

1. **Stadol<sup>®</sup>** (nasal spray, for pain) appears to be OK, but we've had limited experience.
2. **Imitrex<sup>®</sup>** (and other similar drugs like **Maxalt<sup>®</sup>**, **Amerge<sup>®</sup>**, **Zomig<sup>®</sup>**, **Axert<sup>®</sup>**, **Frova<sup>®</sup>** and **Relpax<sup>®</sup>** likely interfere to a degree with LDA. The jury remains out.

3. **Nasalcrom**<sup>®</sup>, a DSCG for allergic rhinitis, remains unclear, but appears to cause no major harm.
4. **Biologic Agents** such as **Enbrel**<sup>®</sup>, **Remicaid**<sup>®</sup>, **Arava**<sup>®</sup>, **Stelara**<sup>®</sup>, **Amevive**<sup>®</sup>, and *all similar biological medications* for rheumatoid arthritis and other autoimmune diseases may interfere with LDA or they may not. There are conflicting reports from the few physicians with patients using these so far, and we need further information.
5. **Illicit drugs**, such as “speed”, “meth” (**amphetamines**) and others will often destroy or harm the effects of LDA if taken within three weeks of treatment. Not clear. Marihuana is likely safe, but using it during the three critical days would be unwise.
6. **Xolair** (the newer anti-IGE injectable for asthma) probably interferes, but we’re not certain yet.
7. **Immunosuppressants: (5-FU, etc.), penicillamine, hydroxychloroquine (Plaquenil**<sup>®</sup>) and **cyclophosphamide** usually block LDA. **Methotrexate** taken outside the three critical days may not.

It is possible that many or most of the drugs on this list *could* interfere somewhat with LDA. The more drugs taken together, and the higher the dosages, the more likely the interference. Patients who take these must weigh the potential interference with LDA against the benefits they receive from these medications.

#### **These may also interfere with your LDA treatment:**

Several other things may interfere with LDA treatment. Most have their worst effects the day before, the day of and the day after LDA (the three “critical” days).

- **Influenza** or another troublesome viral (a “cold”) or bacterial infection at the time of, or soon after treatment (usually safe if it occurs after 2 weeks after an injection).
- **Severe stress** -- physical or mental -- at the time or soon after treatment (probably safe if it occurs after a week after LDA). *Physical* stress seems less harmful than a severe *mental* shock.

## **LDA Recipes**

Let's face it, folks — there's not a whole lot you can do with the limited foods available during the 3 most critical days of each LDA treatment! But on the following pages we've got a few "LDA nouvelle cuisine" recipes for you to try.

Creative contributions are always welcome!

### **LAMB STEW**

Cut lamb into chunks. Brown lamb in skillet. *Do not add oil!* There is plenty of fat on the lamb to prevent it from sticking, especially if you rub a piece of lamb fat on the skillet first.

Toss browned lamb into pot with cut up vegetables -- carrots, potatoes, sweet potatoes or yams, celery, cabbage and/or lettuce. Cover with bottled water and bring to a boil.

Mix approximately 2 TBSP. of tapioca starch into ½ cup bottled water (the tapioca isn't really needed if you use sweet potatoes or yams -- they thicken the stew themselves. Add to stew mix. Simmer with lid on until lamb is tender. Salt to taste with pure sea salt. Add extra water, if necessary, for desired consistency.

### **VEGETABLE STEW**

Same as lamb stew, minus the lamb.

### **VEGETABLE SOUP**

Same as vegetable stew except cut the vegetables smaller and do not thicken with tapioca starch.

### **FISH STEW**

Put raw fish chunks in with cut raw vegetables and cook like lamb stew.

### **NON-FAT POTATO CHIPS**

Slice white potatoes thinly. Sprinkle with salt. Place on wire racks. Broil/bake until golden brown and crispy. May need to be turned during baking.

### **POTATO NOODLES**

Boil until *al dente*. Add to soups, or serve with vegetables/fish/lamb.

### **SWEET POTATO YAM PARFAIT**

Buy sweet potatoes and yams. Bake in covered glass dish at 300 degrees until soft when stuck with fork. Peel and whip each individually, add bottled water as necessary to produce a

smooth, pudding-like consistency. Salt to taste. Layers in a tall, clear glass and garnish with a bit of lettuce leaf. Enjoy!

#### **LAMB MEAT LOAF**

1 lb. ground lamb, as lean as possible  
2 cups grated potatoes  
1/2 cup celery, chopped fine  
1/2 tsp. sea salt  
4 TBSP. tapioca starch or potato starch

Preheat oven to 300 degrees. Combine all ingredients. Add a little water if the mixture seems dry. Turn into a loaf pan and bake at 300 degrees for about 1 hour or until done.

#### **CABBAGE ROLLS**

Use meat loaf recipe. Brown mixture in pan on stovetop. Roll approximately 1/3 cup of meat loaf mixture in a blanched cabbage leaf (blanch cabbage leaves by boiling for 1-2 minutes). Bake in covered glass dish at 300 degrees for approximately 30 minutes or until done.

#### **CARROT SOUP**

Boil carrots in salted water until tender. Pour  $\frac{3}{4}$  of the carrots into a blender and puree. - Variations: Boil celery, cabbage, and potatoes to add with remaining carrots. Add carrot puree.

#### **RHUBARB RELISH**

Chop rhubarb finely. Boil until tender. Dissolve 1 tsp. tapioca starch in  $\frac{1}{4}$  cup water and add to pot with rhubarb. Simmer until thick. Serve with lamb, fish or over sweet potatoes.

Variation: Mix rhubarb relish with finely chopped, cooked sweet potatoes.

#### **SHEPHERD'S PIE**

Boil 4-5 cups of LDA vegetables in small amount of water until slightly tender but not done. Salt to taste. Thicken with tapioca starch (approximately 1 TBSP. -- dissolved in water). Simmer 5 minutes. Turn into casserole dish. You may add cooked lamb, if desired.

Peel, cube and boil 2 large red potatoes until done, then mash potatoes, adding salt to taste. Add a little water if too dry.

Top casserole with a layer or ring of mashed potatoes. Bake 15 minutes. Broil for an extra 3-5 minutes to brown the potatoes.

#### **CARROT JUICE/CELERY JUICE/CABBAGE JUICE**

Use any vegetable juicer to extract juice from raw vegetables. Bring to a boil. Serve hot or cold. *Do not use raw juices!*

#### **FISH PATTIES**

1 medium potato, boiled and mashed  
2 Tbs. tapioca starch or potato starch, dissolved in a little water  
2/3 cup flaked cooked (baked) fish  
½ stalk celery, chopped fine  
Salt as desired, fry with water.

#### **LAMB STIR-FRY**

Cut lamb in thin strips. Rub lamb fat on hot skillet to grease. Brown lamb, adding salt as desired. Remove lamb from pan, add a little water and chopped vegetables (carrots, celery, cabbage). Stir-fry until done tender crisp, adding salt as desired. Stir lamb into vegetable mixture.

Serve as is or over potato starch noodles. Be sure noodles are 100% potato starch.

#### **“PIGS IN BLANKETS”**

Cut whole carrot crosswise into 2-3 pieces. Steam/boil/broil until tender. Steam/boil cabbage leaves until tender. Salt as desired. Roll carrot pieces in cabbage leaves. Secure with toothpicks.

*The Following recipes were contributed by Nicholette Dumke, author of "More Allergy Cooking with Ease," and "The LDA Patient's Cooking and Life-style Guide," copyright, 1994, and some of the recipes are reprinted here with permission. For more information about allergy cooking or how to obtain her books, contact: Allergy Adapt, 1877 Polk Ave., Louisville, CO, 80027, (303) 666-8253.*

These recipes are lifesavers, believe me, and should give you plenty to snack on during those difficult LDA Diet Days. I heartily recommend them, and would like to thank Nikki for her contributions! Some of these recipes need to be prepared ahead of time for your LDA diet plan. *It's far easier to make these foods ahead than to try to do it during the time of the diet!*

#### **WHITE SWEET POTATO CRACKERS**

1 cup white sweet potato flour  
1½ tsp. white sweet potato baking powder  
¼ tsp. sea salt  
5/8 cup (½ cup plus 2 Tbsp.) pure water

Combine the flour, baking powder and salt in a bowl. Stir in the water until completely mixed. Sprinkle white potato flour on a baking sheet. Put the dough on the baking sheet, sprinkle

the top of it with more flour, and pat and/or roll it out to about 1/8" thickness, dusting the top with more flour as needed while you are rolling it out. Cut into 1½" squares. Sprinkle with additional sea salt if desired. Bake at 350 degrees for 10 to 14 minutes. Remove the crackers from the baking sheet with a spatula and cool on a wire rack. Makes about 3 dozen crackers.

#### **TAPIOCA CRACKERS (DR. SHRADER'S PERSONAL FAVORITE)**

1¼ cups tapioca starch (approx.)

¼ tsp. sea salt (approx. – salt to taste)

*Carbonated* water – plain, not club soda

Combine the flour and salt in a bowl. Stir in about 1/4 cup of water. The “dough” is difficult to mix; you may have to stir it and then let it rest a few seconds, then stir again and let rest, etc. The “stuff” is very weird. Keep adding water, about one tbs. at a time, until the dough is of a consistency that cracks when stirred, but liquefies readily when left alone, add more water, and you can pull the spoon through it slowly without it stopping. To bake the wafers, it's critical to use a *silicone baking pad*, placed in a flat baking pan. This stuff has ruined many a Teflon-coated pan. Drop teaspoonfuls of the mixture about 2" apart on the silicone pad and let it spread out. Set aside enough time that you're around the kitchen and can make several pans. Bake at 375 degrees for 25 minutes, or until they just begin to turn golden around the edges. It may take another 5-10 minutes before they are done, perhaps depending on the phase of the moon and your birth sign and wind speed. Once you have determined the time it takes in your oven, just use that and set your timer for each batch. If you make several batches, you usually have to continue to add a little water to maintain consistency. Allow to cool before packaging them up. Makes about 1½ to 2 dozen wafers. These sometimes tend to get hard to chew if stored too long, so it's great to make them the day before you start the diet. This recipe is rewarding, but difficult to get crackers of the proper consistency. If they are too firm or chewy, microwave them for about 30 seconds. You may have to try it a few times to get it right. This is Dr. Shrader's favorite because they help break up the boredom of the LDA Diet, so definitely try to take the time to make these!

#### **SWEET POTATO CHIPS**

Peel and thinly slice sweet potatoes or white sweet potatoes. Place them on a wire rack with a baking sheet underneath it and sprinkle them with sea salt. Bake at 350 degrees for 30 minutes. Then broil them at 400 degrees, and at about 5" from the heating element -- about 2-3 minutes on each side, or until they just begin to brown.

#### **CROCK POT LAMB STEW**

2 lb. lamb, cut into 1" cubes

5 carrots (about 1 lb.), peeled and cut into 1" pieces

5 stalks of celery, cut into 1" pieces

3-4 potatoes, peeled and cut into 1" cubes (about 1½" cubes, optional)

½ cup tapioca

2 tsp. sea salt

2¼ cup pure water

Combine the lamb with the vegetables, tapioca, salt and water in a 3 quart crockpot. Stir the mixture well to evenly distribute the tapioca. Cook on low for 8-10 hours, or on high for 6 hours. Make 6-8 servings.

#### **RHUBARB CONCENTRATE**

1 lb. rhubarb

2 cups pure water

Clean the rhubarb and cut into ½" slices. Place it in a saucepan with the water. Bring to a boil and simmer, covered, for one hour. Pour the mixture into a strainer or colander, placed over a bowl, and let stand about an hour to thoroughly strain the liquid from the rhubarb slices. Reserve the slices for rhubarb jam, below. Use the liquid to make rhubarb tea, below, or as the acid component in leavening for baking. Refrigerate the concentrate to use within a few days, or freeze for future use.

#### **RHUBARB TEA**

Rhubarb concentrate, above

Bottled water

Put 4-6 tbs. of rhubarb concentrate into a 10 oz. mug and fill with boiling water to make rhubarb tea. One batch of rhubarb concentrate makes about 6-8 cups of tangy tea that tastes somewhat like rosehip or hibiscus tea.

#### **RHUBARB JAM**

Prepare rhubarb as for rhubarb concentrate, above. After straining off the liquid, puree the rhubarb in a food processor or blender until smooth. A tangy spread to use on tapioca wafers, sweet potato crackers, etc.

#### **WHITE SWEET POTATO TORTILLAS**

1 cup white sweet potato flour

¼ tsp. sea salt

½ cup pure water

Make as for cassava tortillas, above