

Low Dose Allergen Treatment (LDA)

Modified from the work of
W.A. Shrader., MD

There are a number of different desensitization or immunotherapies for allergies available. The '**classic immunotherapy**' typically available from allergist offices for hay pollen, dust mites, molds, etc. is largely antibody mediated. That is, injecting relatively high doses of particular antigens (Ag, i.e. the stuff you are allergic to) in order to stimulate specific white blood cells to produce IgE antibodies (Ab). These IgE Ab are relatively short lived and the antigens available more limited. Thus, the allergy symptoms typically return quickly without continued treatment, the range of allergies treated and other allergy medications are often used concurrently. **Provocative Neutralization (PN or PNT)** uses extremely dilute concentrations of a greater variety of allergic substances administered into the skin or under the tongue. It likely works by stimulating a low dose immune tolerance with limited duration of effect. In addition, the treatment is frequently limited by the number of substances that can be tested and treated at any one time. It is also more labor and time intensive testing to work through the proper antigens and their dilutions tested by skin injections or sublingual dosing. While effective and specific, PN may require frequent testing and adjustment of antigens and it is difficult to find adequately trained practitioners. **Enzyme Potentiated Desensitization (EPD)** was developed in the 1960's but was banned by the FDA in 2001 for various reasons that were generally not safety concerns. Because of its efficacy, EPD was reformulated as **Low Dose Antigen (LDA)** therapy by W. A. Shrader, MD and has been safely used since 2002.

LDA consists of 4 different cocktails of numerous antigens in fixed combinations enhanced by including a minute dose of chondroitin sulfate and an enzyme, beta glucuronidase. This mixture is injected into the first layer of the skin on the inner aspect of the forearm in very small amounts. The antigens used are in homeopathic or very dilute concentrations. LDA seems to work by ultimately stimulating the production of T-suppressor cells, shutting down overactive allergic responses. Thus, LDA activity appears to be primarily cell-mediated creating a much longer lasting desensitization than the conventional antibody mediated immunotherapy. Typical LDA therapy is repeated every two months for the first six to eight injections and then less often with time as patients experience fewer symptoms and avoidance becomes much less necessary. LDA immunotherapy is used to treat all types of allergy including: sensitivity and intolerance to foods, inhalants (pollens, dust, mites, danders, and molds), and even various chemicals problematic in Multiple Chemical Sensitivity. It has also been useful for many chronic diseases and auto-immune conditions related to or triggered by allergies

including: ankylosing spondylitis, rheumatoid arthritis, interstitial cystitis, asthma, IBS, psoriasis or eczema and others listed below. All the components in LDA are compounded by a special FDA approved pharmacy for prescription to patients. However, the method is not regulated or sanctioned by the FDA and, therefore, not suitable for billing to insurance. Thus, LDA is not available as a retail product and cannot be advertised by the compounding pharmacy. Likely, the only way you will hear about LDA is word of mouth from other patients who have experienced it or from physicians utilizing it in their practice. Please see www.drshrader.com for further discussion on the history of LDA and associated research and comparison to other allergy treatments.

Advantages of LDA

- No need for extensive testing, frequent dosage adjustment or long office visits.
- Prevents ‘spreading’ of sensitivities or development of additional allergies.
- Good for multiple allergies.
- Helpful for auto-immune conditions and many other chronic conditions not typically associated with allergies.
- Safe for all ages and severities of sensitivities.
- Helpful for associated chemical sensitivities, chronic illnesses and auto-immune conditions.
- ~75% overall improvement or elimination of allergies without need for additional allergy medications. Over half of the patients with multiple allergies can stop LDA completely after 16-18 treatments with the other half needed continued treatment with long intervals of 1-4 years between treatments.

Disadvantages of LDA

- It may take 6-8 injections to achieve sustained relief of symptoms except for simple allergies. Failure is not considered until 6-8 injections are given without any notable benefit.
- DO NOT START LDA UNLESS YOU ARE WILLING TO BE TREATED FOR 12 MONTHS TO SEE IF YOU MIGHT HAVE LASTING RESULTS. Most patients, however, see relief long before then.
- Need to avoid various medications and supplements as well as follow specific diet and other guidelines around time of injections.
- Need to do injections at the clinic, staying for up to 30 minutes, at least for the first few injections. The antigen mixture is relatively fragile and must be kept in a controlled environment. Thus, the injections cannot be shipped to administer elsewhere.

Safety – There has never been a fatal or life-threatening systemic reaction to LDA. It can be used to treat IgE mediated anaphylactic responses. However, people with history or anaphylaxis, severe eczema, recurrent hives or angioedema, reactive asthma or significant auto-immune disease should be pretreated with prednisone for the first several doses of LDA. Worsening symptoms with subsequent doses are suggestive of something blocking the effect, eg. Dysbiosis, heavy metals, exposure to allergens around the LDA injection, other contra-indications.

Administration- Intradermal injections given usually on forearm, but legs or abdomen are options.

Frequency- Injections are administered every 2 months for 6-8 injections, then less often as improvement dictates. Hayfever treatment only is 1-3 doses per year starting 3-4 months before the onset of the season. After the first season, only one booster dose may be required yearly, given 3 weeks before the season starts. This also applies to house dust mites, with boosters given as required. Food allergy and chemical sensitivity treatments tend to be done at 2 month intervals for the first 6-8 treatments. Injections cannot be given more frequently than every 7-8 weeks. Milk and wheat generally take the longest to desensitize. Once a response is well established, the frequency of treatment becomes less frequent.

How long before improvement is seen? Most often immediate response is seen but the full benefit of LDA will take longer. Sustained improvement may be noticed within the first 6-12 months and for severe reactions, up to two years. Response can also be blocked by various medications and not following the recommended diet.

What can you expect after an injection?

- Immediate Response: An immediate temporary “cure” of symptoms in 70% of patients after the first treatment and may last 2-5 weeks. A neutral response occurs in about 23% of patients and poor response in 7%. An increasing rate of positive responses occurs with subsequent injections.

- Delayed Response: This should begin after 3-4 weeks (after the lymphocytes mature) and may last to some degree for 2-4 month initially and then longer by the sixth and eighth treatments. Some patients see no results until their shot kicks in at about 3-4 weeks.

- After the first injection, most feel better for 2-5 weeks. When the shot begins to wears off, you must wait for the next injection period to get continued treatment or at least 7-8 weeks. Occasionally, a decreased response may be followed by an increased response again. Eventually you should feel quite well for a full 2 months between injections. At that point, increased intervals between injections should occur (approx 1 year for adult and less for children).

WARNINGS:

- Be certain the doctor knows of any history of autoimmune disease, eczema, skin allergies of any kind, hives, swelling of lips, face or body, and especially any anaphylactic reactions before you ever receive LDA. SPECIAL PRECAUTIONS need to take place with your injections.***

- Do not mix conventional nor provocative neutralization with LDA injections even as the LDA appears to be wearing off.***

- Pregnancy -- LDA should not be used during pregnancy.*** If a patient elects to be treated during pregnancy, some supplements or medications used in conjunction with LDA such as antifungals, vitamin A and maybe even bismuth should be avoided.

General Rules to Receive LDA

- LDA works best if important guidelines for food, supplements and medications to avoid are followed closely.
- Success depends partly on factors that interfere with it. This will vary somewhat with the severity or “Levels” of your sensitivities. Follow the guidelines for your level!!!
- LDA effect may be enhanced by taking recommended vitamin and mineral supplements. These have been specially formulated for LDA and should replace your other supplements for at least the week before and three weeks after the injections.

Failure Causes:

- Not following recommended Rules for LDA, especially related to medications or diet.
- Improper dosage or timing of dosage
- Rare: Interference by gut organisms, i.e. Candida, parasites or bacteria.
- Rare: Interference from high levels of heavy metals, silicone breast or other implants, active infection such as root canal or other immunological issues.
- Not following guidelines around the time of treatment. *Medications, some herbs, homeopathics, other treatment modalities, unrestricted activities not listed should be considered “unknowns”*.

BEST ADVICE: If you have significant illness, avoid questionable things for 3 weeks after LDA.

- Unknown reasons which are occasional.

When Not to have LDA

- During the first 3 days of any infection, including colds
- Within 2 weeks of getting or planning to get pregnant
- Following recent immunization
- Within 5 days of dental work or 2 weeks of planned dental work except cleanings
- Within 4 days of taking any pain killers including Tylenol.

The list that follows is a fairly complete compilation of conditions that have been shown to respond to LDA immunotherapy for patients with classical and non-classical inhalant, food and chemical allergy.

CONDITIONS TREATED EFFECTIVLY WITH LDA

- Food or food additive anaphylaxis, allergy, intolerance or other adverse response
- Chemical or fume intolerance (severe symptoms, when exposed by breathing)
- Anaphylaxis, cause unknown (idiopathic)
- Rhinitis, seasonal or perennial
- Post nasal drip, chronic
- Chronic or recurrent sinus infections
- Chronic face ache/sinus pain
- Nasal polyps

- Anosmia (lack of smell)
- Conjunctivitis (itchy/watery eyes)
- Repeated ear infections
- Serous otitis media ("glue ear")
- Plugged ears (not wax)
- Meniere's Disease, dizziness
- Pharyngitis
- Laryngitis
- Repeated chest infections
- Swelling of the lips, face or tongue (angioedema)
- Asthma, seasonal only
- Chronic cough
- Asthma, year `round
- Hypertension
- Raynaud's
- Irritable bowel syndrome
- Gut "fermentation" (bloating after most meals, especially sugar)
- Constipation
- Chronic anal irritation/itch (not caused by hemorrhoids or parasites)
- Ulcerative colitis and Crohn's disease
- Interstitial cystitis
- Vulvodynia
- Chronic vaginal symptoms
- Urinary tract symptoms (not due to infection)
- Migraine/*severe* headaches
- Mental confusion (brain "fag," "fog," confusion, etc.)
- Epilepsy (any type)
- Multiple sclerosis
- Tourette's
- Hyperactivity, ADD, ADHD
- Depression
- Autism
- Emotional/Behavior problems
- Insomnia
- Muscle pains, severe
- Rheumatoid arthritis (RA)
- Osteo-arthritis or joint pains, non-specific
- Reactive arthritis (autoimmune, non-RA)
- Ankylosing spondylitis, *documented*
- Sjogren's Syndrome
- Pruritis or itching
- Contact dermatitis
- Dermatographia
- Urticaria (hives)
- Eczema, "dermatitis"
- Psoriasis
- CFIDS, CFS
- Diabetes
- Pre-menstrual syndrome (PMS)
- "Candida" or fungal-related illness symptoms that respond clinically to antifungal medications

Low Dose Allergen Treatment (LDA)
Patient Instruction Booklet
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General Rules for LDA Treatment
LEVEL 1, 2 & 3 PATIENTS

All Levels

• **Guidelines for Level 1 patients also apply to Levels 2 & 3.**

- The critical 3 days are defined as the day before, day of and day after the LDA injection.
- To enhance the effects of LDA, we recommend taking the LDA vitamin and mineral supplements that have been specially formulated for this treatment. Start these 1 week before the injections if possible and continue for 3 weeks after.

Level 1 (Patients with only seasonal hayfever)

• You do not need to follow the Basic LDA diet guidelines if you only have hay fever issues. **IMPORTANT EXCEPTIONS:**

Tree Pollen Allergies – Must NOT Eat nuts, fresh apples, oranges, raw carrots or celery for several days after LDA injection.

Mold Allergies -- Spores from different species may cross react with LDA. Avoid tea, cheese, fermented or aged foods, mushrooms, alcohol for 10 days after LDA. If desensitization is unsuccessful, antifungal regime may be needed before next treatment.

• **Drugs Often Interact with LDA** - No drugs, vitamins or herbs, **except** as listed later in this literature or those you specifically discuss with the doctor, should be taken during the critical 3 days.

• 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.

• Avoid alcohol for 10 days after treatment.

• Avoid stimulant drinks like coffee, tea & cola during critical 3 days.

• Sunbathing is okay but avoid extreme heat and sunburn for 3 days after LDA.

• Do not take a sauna.

• Do not wear makeup but may use ChapStick® or other lip balm during critical 3 days. This includes use of ointments, creams, lotions, scented soaps, perfumes, deodorants, shampoos, conditioners or other scented products for the day of the injection.

• Limit contact with your pets, especially cats. Do not sleep with them either.

Danger: You may become sensitized to your pet. If you know you are allergic to your indoor pets, especially cats, you should not stay in the home during the critical 3 days. Wash your hands if you handled your pet. If sensitization occurs, it can be reversed with the next LDA but stricter guidelines must be followed.

• If your home has residual water damage or other known indoor mold issues, you may

want to stay somewhere else during the critical 3 days. If you smell dampness or musk, stay someplace else. Don't worry about outside molds.

- Limit exposure to pollens. Reactions to outside pollens (near a pollen season) after LDA treatment may mean additional booster injections are needed.
- Avoid yard work during critical 3 days
- Feather allergies require that you do not sleep with a feather pillow or down comforter for at least a week after LDA. Use a cotton or foam pillow.

Level 2 (Complex allergies including intestinal issues, food allergies or auto-immune issues)

- You should consider doing this regimen if you do not have a satisfactory response with the Level 1 or IC regimen.
 - Follow the recommended LDA diet during the critical 3 days. Avoid any foods that have caused significant symptoms for 3 weeks after LDA injection.
 - Do not wear makeup but may use ChapStick® or other lip balm during critical 3 days. This includes use of ointments, creams, lotions, scented soaps, perfumes, deodorants, shampoos, conditioners or other scented products for critical 3 days. This includes essential oils and homeopathic creams or ointments that can contain agents of concerns for at least the day of LDA injection.
 - Use pure baking soda to brush your teeth. Do not use toothpaste.
 - Sexual activity may be a problem for women since they risk being sensitized to their partner's semen. Avoid intercourse for the critical 3 days. This is especially true for eczema sufferers.
- Limit exposure to animals, perfumes, aerosols, sprays, painting, chemicals, tobacco, etc.

Level 3 (chemical sensitivity issues in addition to those in level 1 &2)

- Follow all Level 1 and 2 guidelines. These restrictions may be lessened somewhat after 6-8 injections.
- Mild chemical exposures around time of LDA injection should not interfere with the desired effects. Otherwise, avoid potential significant exposures in stores, gas stations, church, etc.
- Do not read newspapers, glossy magazines or new books for the critical 3 days.
- Do not do laundry during the critical 3 days.
- Limit exposure to animals during the critical 3 days.
- Avoid tobacco smoke during the critical 3days.
- Avoid topical medicated products for 2 weeks after LDA injection.
- No hair treatments for one week before and 2 weeks after LDA injection.
- Do not use any insecticides or pesticides, chemicals, paints or sprays, cleaning products or petroleum products for three weeks. Also avoid latex products and new vinyl smells.
- Avoid new carpets, clothing, furniture or construction materials for 3 weeks after LDA injection.
- If more of your potential exposures are at work, try to take your injection at the end of the week. If you can take time away from work, all the better.
- Other hazards may be in small enclosed areas with office machines, e.g. new computer,

fax machine, blueprint machine, laser printer or copier are all best to avoid for at least 24 hours (two days would be better) for the first three injections.

- Add 20-30 mg more zinc 7 days before & 3 weeks after LDA (discuss with doctor 1st)
- Add 200 mg more magnesium citrate or glycerinate (preferably) for a 7 days before & 3 weeks after LDA.
- Folic Acid 10mg daily may be taken to attempt to enhance the effect of LDA for 30 days after LDA (possible effect: possible nausea, so take with meals; discuss with doctor 1st)

THE BASIC LDA DIET

These are **the only “safe foods”** and **the only foods that should be eaten** within the critical **three days** (day before, day of, day after LDA injection). Eating anything not on this list may risk reactions to the LDA or increasing allergic symptoms or sensitizing to additional foods or substances. Some medications, supplements and other substances may negate the effectiveness of the LDA. Children under 8 yo may have food withdrawal & may experience nausea or vomiting. Call the doctor’s office.

GROCERY LIST — (read guidelines for your treatment level)

Lamb , Rabbit, Venison (only if eaten rarely)
Fresh fish (may not be good idea for eczema, anaphylaxis patients)
Sweet potatoes or yams
Any potatoes (may be a problem for some)
Tapioca flour, powder, plain
Parsips, rutabagas or taro root
Organic carrots cooked
Organic celery cooked
Cabbage cooked
Lettuce steamed or if raw-outer leaves only (not greens)
Rhubarb
Pure Baking soda -- no additives
Sea Salt -- not iodized
Flour blend*
Absolutely NO Margarine
Absolutely NO Coffee, Tea, beverages
Absolutely NO Alcohol
Absolutely NO Medications**
Absolutely NO Supplements**
Absolutely NO Herbs
Absolutely NO Chewing gum

Bottled, filtered or purified water, flat or fizzy for drinking and cooking – drink as much

as you can.

* Flour blend is 1/3 potato flour, 1/3 tapioca flour, 1/3 potato starch OR sweet potato flour. Bob Red Mill Potato Flour 6.5# \$20.37 ∞ _ ∞ Potato Starch 6.5# \$12.05 ∞ _ ∞ Tapioca Starch 5.5# \$12.43.

** except for medications & supplements specifically ordered by the doctor.

Look or the **LDA Recipes handout** at end of this PDF if you need meal preparation guidance.

-Even though the above foods are listed as “safe” foods, if you find you react to one or more of them, avoid those.

Moderate to Severe Food Allergy or Intolerance Food Guidance

Failure to adhere to the BASIC LDA DIET during the critical 3 days can cause sensitization to the allergens of the food eaten. You should definitely avoid 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 three weeks following LDA injection. Exposure to these foods after LDA may be harmful. Patients who do not follow this guideline run the risk of sensitizing to a wide variety of foods, pollens and molds. The foods on the LDA diet has been very carefully selected to avoid cross-sensitization to multiple allergens.

Except for simple hay fever patients (Level 1) and some children with autism, all patients should follow the LDA diet strictly for the first several LDA treatments, especially if they have known or suspect food allergies. Later on, it might be ok to try to add a few foods to the diet. If the LDA does not work as well, then you must switch back and follow the diet.

For Extremely Food-Intolerant Patients

While the LDA diet contains every food that has been shown to be safe with LDA, some extremely food-intolerant patients are also sensitive to some or all of the foods on the diet. These patients have no choice but to fast for 2-3 days 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. There have been no reports that fasting is an issue for any patient.

Fasting – Plan to drink about 2 gallons a day of the mixture below to avoid hypoglycemia. Sip the mixture every 10-15 minutes through the day.

- Filtered or pH balanced water
- Small amount of fresh squeezed organic lemon or lime juice with pulp
- Organic maple syrup (grade B preferably), enough to cut the tartness of the lemon/lime. *Glycerin* is an alternative calorie source, but most don’t do very well with this. Glycerin can be purchased at most pharmacies. A dose of 1-2 teaspoons in water every 1-2 hours is usually sufficient to prevent hypoglycemia.

After the critical 3 day diet or fast 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 or that the patient has never tested (challenged after 6-7 day elimination). Avoid only foods that are known to cause symptoms when eaten.

- If you don't have major food problems, begin adding regular foods after the critical three days.

- If you do have severe food problems, continue the basic LDA Diet for another 5 days and then begin adding small amounts of a wide variety of foods rarely or never or foods which have not generally caused symptoms in the past.

- The amounts of added foods can be increased over the next weeks. After that time, regular foods may be added back and should be tolerated much more easily. This process is necessary for only a very sensitive or food limited patient. As time goes on, the necessity for avoidance of foods lessens.

- Reminder:** all patients must be certain to avoid alcohol for 10 days after LDA.

- Unmasking** -- The primary side effect of LDA for food sensitive patients may be "unmasking". With LDA immunotherapy, things you think you know about your foods, both "safe" and "unsafe," may change. That is foods previously thought to be "safe" may be "masked" until starting LDA. Likewise, allergens that may have caused significant and multiple reactions in the past may start shifting to less reaction. The cause often remain obscure to the patient until the allergens are removed from the diet, then gradually reintroduced. When reintroduced, the allergens typically cause less or no obvious reaction. If you start to "loose" foods and have less options, ask the office for help. But, you are encouraged to not give up on LDA as your dietary options should improve with patience, guidance and some detective work.

LDA: Reactions & Side Effects

Most **immediate reactions** to LDA consist of local redness and swelling. This is normal and actually a sign of good immunological response. It is generally quite mild lasting less than 3 days. You may apply a cold cloth but do not use ice if the swelling is irritating and continue to use the arm normally. The dilution of allergens contained in LDA is so small a true acute generalized allergic reaction is extremely remote and has never occurred. More severe swelling may indicate current exposure to allergens contained in the LDA mixture. If severe swelling occurs, call the doctor but do not take any unauthorized medication, over-the-counter or prescription. Decongestants and antihistamines should not be used for 3 weeks after a LDA injection.

Delayed Reactions are usually the temporary return of allergy symptoms being treated. Occasionally patients experience congestion, hives, headaches or mild flu-like symptoms. While unpredictable, delayed reactions are not uncommon with LDA and are generally followed by a favorable response to treatment. They may start between 2 hours and 5 days after a treatment. They usually last a few days but very occasionally up to 3-4 weeks, and rarely for up to 2 months. If they occur, these reactions happen usually after the first LDA treatment and diminish with successive treatments. These temporary symptoms almost never require treatment. Be sure you are following recommendations for avoidance of any offending allergens (if known). Ask the doctor about treatment but do not use decongestants, antihistamines, aspirin or any other pain reliever as they may

wipe out the effectiveness of the LDA.

Delayed or Immediate Depression is a rare reaction, but has been known to occur after an LDA injection. It usually begins several weeks after an injection persisting from 3 days to one month. If you develop depression, discuss it with the doctor.

**Stick with the program, do your best to make it work, and
LDA should work for you.**

DRUGS AND INTERACTIONS WITH LDA- Follow guide references; see alternative suggestions

Drugs that ALWAYS interfere (expect to similarly avoid new drugs in the same class)

- Avoid 1 day before and 2 days after LDA. Use short course of prednisone if needed.
 - **Albuterol (Maxaire®, Proventil®, Ventolin®)**
- Avoid 5-7 days before and after LDA. Use short course of prednisone if needed.
 - **Salmeterol or Nedocromil (Seravent® and Tilade®)** longer acting inhaled drugs.
- Avoid 5-7 days prior and 3 weeks post injection for the following:
 - **H-1 antihistamines** (Claritin, Allegra, Zyrtec & others)
 - **Simple antihistamines** (chlorpheniramine, Actiphed, Benedryl, hydroxyzine)
 - **Leucotriene receptor antagonist – Accolate, Singulair**
- Avoid 1 day before and 3 days after LDA.
 - **Fluticasone, (Flovent,)** – steroid inhalers
 - **Combivent**
- Avoid 3 weeks after LDA as they severely interfere with desensitization
 - **Zantac®, Tagamet®** and probably **Protonix®** (however if given 3-4 weeks prior to LDA, then stopped abruptly 36 hours before LDA, may be helpful in some difficult patients); Use Histamin H2 which favors LDA or **Prilosec®** seems to have less effect so may be safe before or after LDA. Do not use the day of LDA.
 - **Immunosuppressants (5-FU, penicillamine, hydroxychloroquine (Plaquenil®, cyclophosphamide)** usually block LDA; Methotrexate® may not interfere.
- Avoid 3 weeks prior and NEVER resume the following/ or MAY resume
 - **Rheumatoid arthritis drugs** (Embrel®, Remicoid®, Arava®) & similar drugs- NEVER
 - **Decongestants** of any kind such as Sudafed® (pseudoephedrine)-MAY; as an alternative try guaifenesin 600 mg twice daily

- Avoid 4 days prior and 3 weeks post injection for the following:

-**Prostaglandin inhibitors** such as aspirin, NSAIDS (Ibuprofen, Motrin®, Advil®, Tylenol®); Use ketoprofen if necessary (Orudis with doctor supervision around LDA)

-**Opiates** (codeine, oxycodone, hydrocodone)

-**Sulfa drugs**, sulfonamides, trimethoprim. Combinations of Septra®, Bactrim®, others;

-**Anti-Folate drugs** such as above &, antimalerials; Sulphonamide® is possibly okay except within the critical 3 days.

-Avoid **Synthetic Hormones**-Switch to natural hormones; treatment can then begin

-Avoid **Birth Control Pills**-exception maybe Desogen®

-Avoid **Hormone Implants** – Likely will block up to six months.

-Avoid **Estrogen Patches**-LDA may cause sensitization to patch-avoid 3 days prior.

-Avoid **Gastrocrom**; Switch to digestive enzymes.

-Avoid **Cytotec (misoprostol)** before LDA; taken after may enhance the action of the injection.

Drugs That Likely Interfere with LDA (consider classes of similar new drugs to likewise avoid)

- **Cox-2 Inhibitors** (Vioxx®, Celebrex® and all others)

- **Selective Alpha Blockers** (Prazosis®, Proscar® for example) when taken continuously

- **MAO inhibitors** (Parnate, or Nardil & others) used for depression

- **Antidepressants, tranquilizers, and anti-anxiety agents** (Paxil®, Prozac®, Soloft®, Xanax®, Serzone®) in moderate or high doses-Do not take day of LDA

- **Anticholinergic** (Atrovent) in gut appear okay but in aerosol form, it may interfere.

- **Asthma Aerosols**-all suppress T-cell in lungs; maybe chromolyn sodium (Intal) powder is okay; suggest Intal powder for the two days after LDA or Theophylline® pills (for asthmatics- ideal is 60 mg/d).

- **Beta Blockers** (Inderol®, Tenormin®, Lopressor, ®others) ; try to skip the 3 critical days. If BP is severe, skip only day of LDA.

- **Over the Counter Diet Pills**-destroy effects of LDA

- **Darvon® and Dalwin®** avoid if possible but may be okay

- **Cortisol** in dosages greater than 40 mg if taken near LDA injection-lower dose is safe.

- **Chromolyn sodium (DSCG)** may be inhaled but not ingested for 3 weeks.

- **Xolair®** (the newer anti-IGE injectable probably interferes).
- **Low Dose Naltrexone**- Avoid critical 3 days
- **Medical Marijuana**-very low exposure-may be okay Avoid critical 3 days-caution
- **Illicit Drugs & amphetamines** will severely harm or destroy the effects of LDA
- Avoid 3 days before and 3 weeks after
 - EPA Fish Oil**
- Avoid 1 week before and 1 weeks after in smaller dose
 - Flax Oil Borage & Evening Primrose** -500mg/d (may resume full dose 3 weeks after LDA)
- Avoid 2 weeks before and 5 weeks after
 - Cod Liver Oil**
 - Feverfew, Ginseng**, reasons above.

If you take a medication, herb, or other substance you feel either helps or hinders LDA, tell your doctor so others may benefit.

Drugs & Treatments That Help, May Help Or Do Not Interfere With LDA-

most should be avoided the critical 3 days except when advised by your doctor.

- **Folic Acid**-may improve LDA because it promotes growth of T-cells; suggested dosage is 10mg./d (5 mg/d for children 6-12) for 1 month after LDA
- **Vitamin B-12**- Favor concomitant dose fo 300-1000 mcg/d.
- **Vitamin D /Vitamin A**- alternate-increases receptor site affinity on T-cell
- **Zinc, Magnesium**-enhances LDA
- **Histamine H-2** - H2 receptor stimulation favors LDA (see cautions for Tagamet® & Zantac®) Prilosec® may be safe day before and day after but not the day of LDA.
- **Theophylline®**-may potentiate LDA but don't use colored pills; have them compounded. During critical 3 days, 60mg/day is ideal. Used primarily to eliminate need for inhaled drugs for asthmatics at the time of LDA.
- **Caffeine**-must be pure form compounded in tapioca starch by pharmacist, is okay at time of LDA for those who stop coffee too close to LDA injection. Dose is 50-200mg, 1-3 x/d as needed. 1 cup = 100 mg.
- **Cortisone (prednisone or prednisolone)**- doses up to 35 mg to improve the response to LDA. Used primarily for patients that have eczema, asthma, arthritis, etc.) Higher doses will have the opposite effect, Lower dosages seemingly have no ill effects.
- **Prostaglandin Inhibitors**-if you MUST use NSAID Tx during LDA for severe disorder, then use the following:
 - Orudis®; ask for special schedule from your doctor
 - Take H2 Blocker one month before LDA and stop 36 hours before LDA
 - Start Cytotec® 36 hours after LDA, 100 mcg twice daily for 3 weeks and

then increase to 200 mcg four times per day while on Orudis®.

Following the protocol, 3 weeks after LDA, do NOT ever miss a daily dose of Cytotec® if you are taking it.

•**Intal®**-dysodium cromoglycate or DSCG INHALED may be continued. Oral DSCG or Gastrocrom® will destroy LDA if given almost any time after the injection. Consider prednisone.

•**Asacol®, or Dolobid®** may be safe for inflammatory bowel disease. If stopped 24 hrs prior to LDA, it may potentiate LDA. Oral prednisone should follow for 4 weeks rather than the 5-ASA derivatives. Cytotec should be avoided. Try anti-yeast diet to get off of these type of drugs!

•**Guiafenesin**-600 mg/2xd as a substitute for decongestant.

•**Tofranil® (imipramine) an antihistamine/antidepressant**-10-25 mg 2-3x/d.

•**Preservative-Free Xylocaine®** nasal spray (for migraines) appears to be okay. This must be specially ordered by your doctor.

•**Histamine neutralization** injections do not interfere and may be taken on the day of LDA

Drugs With Unclear Effects-may be okay for some, not others, or interfere much

•**Stadol® Nasal Spray**- for pain appears to be okay.

•**Imitrex®**-does not appear to interfere much or at all in injectable form, but has been seen to.

•**Nasalcrom®**, A DSCG for allergic rhinitis appears to not harm LDA.

Unknowns But Do Not Seem To Interfere With LDA-Valium®, Xanax®, Prozac®, Paxil®, Librium®, and many others.

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It is possible that many or most of these drugs could interfere somewhat with LDA. More drugs taken together and increased dosages raise the possibility for interference with LDA. Interference vs. Benefits must be weighed.

What To Look For 3 Weeks After LDA

- **After 1-3 days**, foods eaten prior to LDA in large quantities, even possibly rotated, will sometimes make you ill if you attempt to eat the same large quantities. This is an example of “unmasking”, and LDA can cause it to happen.
- Patients who have “unmasked” to foods may complain that they have “lost” foods or have “become sensitive” to foods after one to three LDA injections. The symptoms can last for 1-3 weeks.
- Patients who experience unmasking may need to vary the diet with large varieties and much smaller quantities of low-allergenicity foods, usually until the second or third LDA injections.
- Unmasking almost always stops occurring after about the 6th injection.
- Although “unmasking” is not 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.
- Very sensitive patients are advised to eat 1 tsp to Tbls amounts at each meal to large number of low-allergenicity foods they seem to tolerate. Rotation will not work for these patients as they use up all their food options.
- Copies of the VMD booklet are available from the author, Nikki Dumke, at Allergy Adapt, 1877 Polk Ave., Louisville, CO, 80027.
- **CAUTION: 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 would likely continue to have symptoms. This will often delay or destroy the desensitization to those foods that LDA would normally produce. Change your diet and your thinking temporarily and the problem will go away.**
- 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 begins shifting so foods you thought were safe may no longer have the same affect.
- **OVERVIEW: It Is Critical That You Do Not Stop LDA** should have an adverse reaction to one of the first few injections. 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. Do not eat large quantities of single foods even in rotation within the three weeks after LDA as it could interfere with LDA and make you ill. 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, foods may upset you but will be safe after that 3 week period. Also, in the first week or two, you may feel you experience odd symptoms 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 Begins after 2-4 LDA treatments. At 3 weeks after LDA injection, add small amounts of foods to which you were previously sensitive to encourage tolerance. If you have a significant reaction to a particular food, wait until the next shot to challenge that food only and try other foods that may result in a better response. **If you continue to avoid foods, you may never desensitize to them.** It may be necessary to avoid foods prior to the 3 weeks after LDA that you know caused previous significant

reactions, such as gluten or milk protein foods, so that LDA can maximally boost your tolerance over time.

**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.**

Stimulant Beverages cause more issues than many food-sensitive people believe. They feel tea, cola beverages and coffee do not upset them, but all contain important allergens, such as caffeine and the methyl xanthine group of chemicals. These chemicals must be avoided during the critical 3 days. Severe withdrawal headache occur when caffeine is stopped abruptly. The only thing that is allowed, should this happen is caffeine compounded in tapioca starch. To avoid this situation, reduce the consumption of tea, cola, coffee and all caffeine-containing beverages, perhaps switching to decaffeinated types, and stop altogether several days before LDA.

Vitamin C could interfere with LDA so reduce your intake to 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) and/or IM (injection) therapy with Zinc, folic acid, vitamin-B complex, magnesium, B-6 and perhaps others may enhance the response to LDA. Most patients who receive this type of adjunctive therapy seem to note a difference (not 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. Patients often feel better initially and have less fatigue. As this is an added cost, IM injections of B's would be the least expensive option. If interested ask the doctor.

Gluten Sensitivity that is a true gluten sensitivity that is significant, LDA will not desensitize you to foods containing gluten as the physiological mechanism for gluten is different from other foods. Fortunately, most patients with sensitivity have problems primarily with wheat and not necessarily with gluten. Gluten sensitivity is increasing in the population. If after two years of treatment with LDA, you find you cannot eat wheat and other grains containing gluten, it is likely you never will.

Unfortunately, if you are truly gluten allergic or celiac, you will likely not clear this with LDA. Wheat sensitivity may improve somewhat with time.

The Gut, Candida, Dysbiosis & LDA- Gut Preparation and Antifungals may be necessary for some patients who have a true allergy or immunological interference from the group of candida organisms. Available tests to detect candida are inadequate. The only true test for "Yeast Syndrome" is described by Dr. William Crook in "The Yeast Connection". A trial of an antifungal (nystatin, Diflucan, Nizoral, Spornax or amphotercin) for a period of time to see if it improves one's symptoms verses going on an "anti-Candida" diet alone, which may well improve one's symptoms due to food intolerance, is the only way to determine yeast sensitivity. True candida problems can

interfere with the LDA treatment. Prior to your first injection, your physician may want to know if 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. Antifungal therapy may cause the bacterial and fungal organisms die and release toxic products into the bloodstream that increase for 2-3 days.

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 continue this therapy after an LDA injection. If so, you must resume the treatment within 24 hours after the injection or you will need to wait for 3 weeks before starting antifungal again.
- Take your prescription for the 7 days before and, if advised, the day after receiving LDA. Skip the day of LDA.
- If you take Diflucan, Nizoral or Spornax, it's paramount, except for the critical 3 days, also take milk thistle, 450-600 mg daily. Continue it for a week after stopping the medication. This helps the liver detoxify the antifungal medications.

Asthma, Eczema, ADHD

Asthma- It will be very difficult to avoid inhalers if you have significant asthma. Ideally large doses of these inhalers should be avoided for the full 3 weeks after LDA. Often a substitution of theophylline compound may reduce the need for inhalers during this period. Moderate doses of inhalers for asthma (e.g. 2 puffs three times daily both inhaled bronchial dilators and inhaled steroids) likely should not cause severe interference with exception of the day before LDA, the day of LDA and 2 days after LDA.

Prednisone Use- How this is usually mediated is by taking a short course or “burst” of prednisone beginning 2 days prior to LDA therapy, in a decreasing dose format. Prednisone under 40mg.doses will not interfere with LDA, even when taken on the day of the injection.

Theophylline Use 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.

Tilade, Seravent, & Leucotriene Inhibitory Drugs, the newer-longer acting-inhalers, 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.

Prednisone Schedule-All asthmatics would be well advised to follow the schedule for the first two to four LDA injections. After that time, it is often not necessary.

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.

NOTE: Do not use Prelone syrup, which contains sugars, colorings and additives.

Eczema-LDA works extremely well for eczema. During LDA treatment there will likely be number of “ups and downs” up with the first 3 to 6 injections, depending on the frequency of shots. Once the LDA treatment has become established, fluctuations become much less. Some patients must have patience, as some varieties of eczema are slower to respond. Exacerbations after an LDA injection are not uncommon and may occur even after response has been consistently good.

Prednisone Pretreatment may be necessary for patients with significant eczema, at least for the first 2 to 4 injections

Hyperactivity (ADHD, ADD) responds quite good to LDA. Initially it may make hyperactivity symptoms worse after an injection – especially the first 2-3hours & 4-72 hours after.

Ritalin, Concerta, Stratera, adderall & such drugs for ADHD, should be discontinued ideally 4 days before the 3 weeks after an LDA injection. LDA may not begin to take effect until the 6th injection in the ADHD patient, although some significant response generally occurs much sooner. Patience 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.

NOTE: We know very well that sometimes this is not possible. Patients should try LDA in any case. The worst it could do is fail.

DIET is a very important role in the cause of ADHD so 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 children have considerable success with LDA. 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 issue 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. For now we are being advised to encourage parents of autistic children to try LDA with the diet, but if it’s just not possible, do LDA without the diet, but avoiding wheat and dairy (and all gluten if possible).

DO NOT HAVE LDA TREATMENT UNDER THESE CIRCUMSTANCES:

- If you are allergic or intolerant and have not dieted as instructed before the dose.
- If you have taken more than 3 grams vitamin C two weeks prior to LDA therapy. Taper gradually to avoid withdrawal symptoms.
- If you suspect development of a cold or infection or if you have an infection.
- If you take an antibiotic, be sure to take Nystatin, Sporanox®, Nizoral,® amphotericin

antifungal.

- If you have candidia or dysbiotic intestinal issues and have not taken the preliminary course of antifungal.
- If you are pregnant, think you may be or are trying to be, talk with the doctor.
- If you have just been immunized (See Rules for Immunization and Malaria Prevention)
- Review Guidelines for Drugs That May Interact With LDA
- If you have had dental work within 5 days before LDA or if you have plans within two weeks after LDA. Dental cleaning and checkups are okay.
- Avoid severe stress, physical or mental, at the time or soon after treatment. Physical stress appears less harmful than severe mental shock.

LDA RECIPES

It's not much but it is something! Limited foods are essential during the Critical 3 Days and this is what you have to work with. It is far easier to make these recipes up ahead than to wait for the time of diet.

STEW

Cut meat into 1 inch chunks. May use any of the meats from LDA Diet or only vegetables if desired.

Do NOT USE OIL as you brown in skillet. There is plenty of fat on lamb to prevent it from sticking 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, celery, cabbage and/ or lettuce.

Cover with bottled water and bring to a boil.

Mix about 2 Tbls tapioca starch into _ cup water. (not needed if you use potatoes or yams)

Add thickener to stew, cover with lid and allow to simmer until tender.

Add extra water, if necessary, to get desired consistency.

Variations: For **FISH STEW**, substitute raw fish, adding to the cooking vegetables closer to serving. For **VEGETABLE SOUP**, prepare the same as stew except not thickened.

CROCK POT LAMB STEW

2 lb lamb cut into 1 inch cubes

5 carrots (about 1 pound) cut into 1 inch pieces

5 stalks celery, cut into 1 inch pieces

3-4 potatoes, peeled and cut into 1 inch cubes

_ cup tapioca

2 tsp sea salt

2 _ cup pure water

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

LAMB MEAT LOAF

- 1 lb ground lamb, as lean as possible
- 2 cups grated potatoes
- _ cup celery, chopped fine
- _ tsp sea salt
- 2 Tbls tapioca starch or potato starch

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

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 the noodles are 100% starch.

CABBAGE ROLLS

Brown Lamb meat loaf mixture in a pan on stovetop. Add grated carrots, celery and potatoes as desired.

Blanch cabbage leaves by boiling for 1-2 minutes.

Roll approximately 1/3 cup meat mixture in a blanched cabbage leaf.

Place in covered glass dish at 300 degrees for approximately 30 minutes or until done.

SHEPHERD'S PIE

Boil 4-5 cups 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.

Add lamb browned on stovetop if desired.

Cover with a small layer of flour mixture mixed with water to pie dough or biscuit consistency.

Bake at 300 degrees for approximately 30 minutes or until topping is lightly brown.

FISH PATTIES

1 medium potato, boiled and mashed

- Tbls. Tapioca starch or potato starch

2/3 cups flaked cooked baked fish

_ stalk celery--chopped fine

Salt as desired.

Form mixture into patties. May add a small amount of water to consistency.

Fry with water.

NON-FAT POTATO CHIPS

Slice white potatoes thinly, sprinkle with salt and place on racks. Broil/bake until golden brown and crispy; may need to turn.

POTATO NOODLES

Cook until desire consistency, Add to soups, or serve with vegetables, fish and lamb.

SWEET POTATO YAM PARFAIT

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

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

STICKS IN BLANKETS

Cut whole carrots crosswise into 2-3 pieces. Steam/boil/broil until tender.

Steam/boil cabbage leaves until tender. Salt as desired.

Roll pieces in cabbage leaves. Secure with toothpicks.

CARROT SOUP

Boil carrots in salt water until tender.

Pour _ of the carrots into a blender and puree.

May be eaten hot or cold.

Variations: Boil celery, cabbage, and potatoes with carrots. Add carrot puree.

CARROT JUICE/CELERY JUICE/CABBAGE JUICE

Use any vegetable juicer to extract juice from raw vegetables.

Bring to a boil.

Serve hot or cold.

Note: Do not use raw juices as the enzymes may inactivate the LDA.

RHUBARB RELISH

Chop rhubarb finely. Boil until tender.

Dissolve 1 tsp tapioca starch in _ 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 celery.

RHUBARB CONCENTRATE

- 1 lb rhubarb cut into _ inch slices.

Place in a saucepan with 2 cups water

Bring to boil and simmer, covered for one hour or until soft.

Pour mixture into a strainer or colander, place over a bowl and let stand about an hour to thoroughly strain the liquid from the rhubarb slices.

Reserve the slices for jam below.

Use the liquor 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.

RHUBARB TEA

Put 6-8 tbs. of the rhubarb liquor above 10 oz mug and fill with water to make tea.

Or one batch make about 6-8 cups of tangy tea that tastes somewhat like rosehip or hibiscus tea.

Served hot or cold.

RHUBARB JAM

Prepare rhubarb as for rhubarb concentrate above.

After straining off liquid, puree the rhubarb in food processor or blender until smooth.

Makes a tangy spread to use on fish, tapioca wafers, sweet potato crackers or other.

WHITE SWEET POTATO TORTILLAS

- 1 cup white sweet potato flour
 - _ tsp sea salt
 - _ cup pure water
- Make as for cassava tortillas

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 . For more information about allergy cooking or how to obtain her books, contact: Allergy Adapt, 1877 Polk Ave., Louisville, Co., 80027. T: 303-666-8253.

WHITE SWEET POTATO CRACKERS

- 1 cup white sweet potato flour
 - 1 _ tsp white sweet potato baking powder
 - 1 _ tsp sea salt
- 5/8 cup (1/2 cup plus 2 Tbsp) water.

Combine flour, baking powder and salt in a bowl. Stir in water until completely mixed. Sprinkle white potato flour on a baking sheet. Put dough on the baking sheet, sprinkle top of it with more flour and pat or roll it out to about 1/8 inch thickness, dusting the top with more flour as needed while you are rolling it out. Cut into 1 _ inch squares. Sprinkle with additional sea salt if desired. Bake at 350 degrees for 10-14 minutes. Remove the crackers from the baking sheet with a spatula and cool on a wire rack. Makes about 3 dozen.

Tapioca Crackers

- 1 _ cup tapioca flour
- _ tsp sea salt
- _ cup plus or minus 1 Tbls water

Combine flour and salt in bowl. Stir in about 3/8 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 etc. Add remaining 1-3 tbs of water, one at a time until dough is of a consistency that cracks when stirred, but liquefies readily when left alone. To bake the wafers, use a dark or dull finished baking sheet rather than a shiny one if possible.

Drop teaspoons full of dough about 2 inch apart on the baking sheet and let the dough spread out. If your baking sheet is too small to hold all the batter, put the rest on a second sheet rather than let set in the bowl.

Bake at 375 degrees; 20-30 minutes or until they begin to turn golden on the bottom. If they stick, let them bake 2-3 minutes longer. If they still stick, pry them off with a spatula. Sticking indicates the mixture is too moist. Allow cooling at least 2 hours before packaging them up.

Makes about 1 to 2 dozen wafers. These are best eaten fairly fresh as they tend to get hard to chew if stored too long. This is a rewarding but difficult recipe in getting the right consistency. You may have to try a few times to get it right.

HOMEMADE POTATO BALLS:

- 1 cup mashed potatoes
- 1 medium shredded carrot or _ small parsnips, or _ small rutabaga
- Tbls sweet potato flour (optional)

Salt to flavor

Preheat oven to 400 degrees F. With a fork, combine the mashed potatoes and shredded veggies. Form the potato mixture into about 2 dozen miniature balls. Place potato balls on lightly greased cookie sheet and bake for 10-15 minutes, or until lightly browned. Let cool fully

BAKED PARSNIPS

- 2 1/2 pounds parsnips
- 3 tablespoons lamb broth
- salt to taste

Peel parsnips, quarter, and remove any woody cores. Parboil the parsnips for 15 minutes. Place in an ovenproof dish. Add broth on top of parsnips and sprinkle with salt. Bake for 30 minutes at 350°.

6 Servings

RUTABAGA FRIES

- Rutabagas
- Salt to taste

Preheat oven to 425 F. Peel rutabagas with a paring knife and slice in 1/4" rounds. If you like, you can do them in strips - they will cook a little faster, but you have to watch them carefully or they'll burn. Put them on a nonstick broiling pan. Broil for about 12 minutes, turning frequently to avoid burning. Take out when golden brown and tender. Immediately sprinkle with salt.

Tapioca Pearl Veggies

- Tapioca pearls – 1 cup (soak overnight)
- Boiling water – 1 1/4 cups
- 1 cup your choice of minced mixed cooked vegetables
- salt to taste

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Read more about it at www.cooks.com/rec/view/0,1613,146169-225201,00.html
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Mom's Tapioca

- 8 tbsp. pearl tapioca
- 1/4 tsp. salt
- 1 qt. rhubarb tea

Soak tapioca in a little water overnight in crock pot. Add 1/4 teaspoon salt. Boil 1 quart rhubarb tea and pour over tapioca while still hot. Cook on low until tapioca is done and liquid is diminished to desired consistency.

SWEET POTATO TREAT

1 Large Sweet Potato, washed & dried

Preheat oven to 250° F

Line a baking sheet with parchment paper.

Cut off one side of the sweet potato lengthwise, as close to the edge as possible.

Cutting the side of the potato first allows you to then turn the potato onto this flat surface that you have just created. Having a stable area to rest the potato will make it easier to cut the potato into slices. Don't discard that first piece; it comes out just as yummy as the rest!

Cut the rest of the potato into 1/3 to 1/4" slices.

Place them on the prepared baking sheet.

Bake for 3 hours, turning half way through.

Cool completely on a wire rack.

Storing - Although these treats are dried, you can keep them in the refrigerator for up to 3 weeks. You can also freeze them for up to 4 months.

Tips & Techniques

Choosing a Sweet Potato - You want to find a potato that is as uniform in shape as possible. This will aid in the drying process as the pieces will be similar in shape and will cook through at the same time. Also, try to find one that has fewer blemishes or bruises.

Peel the Sweet Potato - rinse with purified water

Knife Skills - If you are a pro with a knife, you may not need to cut off one side to stable your potato. If that's the case, then by all means skip that step. However, for those of us who are more handy with a pastry bag, than a knife, having a stable surface makes all the difference.

Cutting Even Pieces - One way to ensure your pieces are as even as possible, is to first rest your knife where you would like to cut. Then press down gently across the entire length of the knife. Make a slight cut, then press firmly on your knife from one end to the other, and cut all the way through.

Degree of Chewiness - Baking for 3 hours results in a soft, but chewy treat. If you prefer more of a *crunch*, then bake for an additional 20-30 minutes. When you take the sweet potatoes out of the oven, they may at first appear to be too soft. Let them cool completely on a wire rack before you decide whether or not to bake them longer. This is because they will continue to dry or harden while cooling.

Please feel free to contribute your own creative recipes or feedback for the benefit of our other patients.

Enjoy!

