PEINE
OSTEOPATHIC
MEDICINE

LOW DOSE IMMUNOTHERAPY (LDI)

WHAT IS LDI?

Low Dose Immunotherapy (LDI) is treatment for increasing immune "tolerance" of an overactive immune system. Allergy and autoimmunity represent an alteration or overactivation of appropriate immune tolerance. LDI retrains the immune system for specific antigens, thereby decreasing overactive immune response and decreasing symptoms.

This type of immunotherapy was discovered in Great Britain in the 1970s and called "Enzyme Potentiated Desensitization" (EPD). The technique utilized very small concentrations of antigens along with an enzyme, beta glucuronidase, which helps educate the T cells involved in the immune response. This treatment was brought to the US, but in the early 1990s the FDA stopped the importation of EPD. At this point, Dr. Shrader reproduced the mixtures of EPD and called them LDA. LDA originally used antigens causing certain allergies and the technique was later expanded by Dr. Vincent to treat various autoimmune conditions using a variety of different antigens, called LDI.

LDI FOR AUTOIMMUNE DISEASES

Autoimmune diseases and conditions that involve an overactive immune system (like allergies) can be treated with LDI. It is now understood that many autoimmune diseases are "triggered" by an initial infection. Sometimes, when the immune system recognizes the infection and mounts an attack through an antibody-mediated immune response, there is a cross reactivity with the body's own tissue. This process is called "molecular mimicry." A good example of this is Rheumatic Fever, where damage to the heart can occur after the Streptococcus infection is treated. Often there can be more than one trigger for a disease process.

The key is recognizing the difference between an "infection" and an "immune reaction." Infections involve an organism in a place where it doesn't belong and antimicrobial therapy is curative, i.e. pneumonia, cellulitis, endocarditis, etc. An "immune reaction" is an inflammatory response to an organism that is either a normal organism in the human body or is not improved with antimicrobial therapy. Chronic Lyme Disease is another example of an "immune-mediated" process rather than an "infection." Many people without Lyme Disease symptoms harbor the bacteria that causes Lyme Disease. Symptoms often do not fully resolve and can return after treatment with antibiotics.

WHAT CONDITIONS RESPOND WELL TO LDI?

- Food allergies/sensitivities
- Environmental allergies
- Chemical sensitivities
- Mold sensitivity
- Eczema, acne, rashes
- Chronic Fatigue
- Crohn's disease, Ulcerative Colitis, IBS
- Yeast sensitivity
- Endometriosis, Menstrual Cramps, PMS
- Chronic Lyme Disease
- Rheumatoid Arthritis, Ankylosing Spondylitis, generalized joint pain
- Fibromyalgia, muscle pain and tension
- Herpes outbreaks
- Chronic Sinusitis
- Migraines

(continued)

PEINE
OSTEOPATHIC
MEDICINE

PROCEDURE

Patients will first undergo a consultation and an in-depth history to determine if LDI is an appropriate therapeutic technique. Often lab work will be done prior to LDI therapy to help guide treatment. LDI doses are given by administering a small drop (less than 1 ml) of the enzyme and antigen mixture under the tongue. Doses are typically repeated every 7–8 weeks, but "booster" doses can be given as soon as 1–2 weeks, depending on response to the first dose. The key to LDI is finding the right concentration that the immune system responds to. Concentrations can range from 2c up to 20c. "1c" refers to a 100:1 dilution, and each successive number is another 100:1 dilution.

Because there can be multiple different antigens that trigger the patients' symptoms, multiple antigens may need to be given before symptoms fully improve. If multiple antigens are needed to alleviate symptoms, the antigens can be combined and given together.

WHAT TO EXPECT AFTER YOUR LDI TREATMENT

Please read the LDI Handbook on our website in the FAQ section. LDI therapy relies on changes in symptoms. Please be aware of any changes in your symptoms, and make note of your symptoms on your LDI Log Sheet to help make your treatment more successful. **BE PATIENT. Finding the correct dose can sometimes take multiple tries before we find the correct dose that you respond to.**

There are three things that can happen after your LDI dose:

1. **Improvement in symptoms.** Improvement in symptoms can happen from minutes up to 1 week from your dose. Doses are usually repeated every 7 weeks, but if your symptom improvement does not last that long, we can give you a booster dose. A booster dose is a fraction of the dose that improved your symptoms and will extend your improvement to the 7 week mark, when we can give then next full strength dose.

2. **No change in symptoms.** Improvements usually happen in the first **1 week** after your dose. If you have no change in your symptoms, we can give you the next stronger dose 1 week after the first dose.

3. **Flare of symptoms.** A flare of your symptoms can happen in the first **72 hours** after your dose. This means that the concentration of your dose was too high (it is a good thing, because it lets us know the therapy will work for you). We will need to wait 7 weeks before your next dose, at a lower concentration. ***Please note: a continuation of baseline symptoms does NOT indicate a flare.***

HOW TO TAKE YOUR DOSE(S)

1. **CAREFULLY** remove tape from plunger and the cap from the syringe. Close mouth around syringe and squirt slowly under tongue. Hold under tongue for 30 seconds.
2. Take dose 30 minutes away from food or drink.
3. Take different LDI mixtures at least one week apart.

DOSE REPORTING

For accurate dosing and success in treatment, please record your responses on the **LDI Log Sheet** to report to your provider at your next visit.

Informational LDI videos created by Dr. Ty Vincent are available on YouTube and on Dr. Vincent's website:
http://www.globalimmunotherapy.com.

2717 WEST BANNOCK STREET, SUITE 101 • BOISE, IDAHO 83702 • 208.947.0925 • 208.947.0926 (FAX) • PEINEOSTEOPATHIC.COM