

Low Dose Allergen Immunotherapy (LDI/LDA)



Allergies, food sensitivities, and autoimmunity are reflective of a loss of immune 'tolerance'; when our immune system loses tolerance we become highly reactive, experiencing reactions to otherwise benign substances such as foods, airborne particles, and even our own tissue.

What is Low-dose Allergen Immunotherapy?

Low-dose allergen immunotherapy (LDI or LDA) aims to retrain the immune system, restoring tolerance to a hyperactive system.

During LDI treatments, extremely dilute amounts of antigens are combined with an enzyme solution containing B-glucuronidase and injected intradermally in the skin of the forearm.

The antigen combination may include extremely low dose amounts of inhalants, foods, chemicals, bacteria, and/or woods.

How It Works

The combination of antigen and B-glucuronidase is presented to dendritic cells in the skin, subsequently signaling to the thymus via lymph nodes to produce specific white blood cells, known as T-regulator cells (T-reg cells). (1,2,3)

These T-reg cells regulate CD4 and CD8 T-cells that were mis-calibrated to produce inappropriate, or overreactive responses to many substances such as food, bacteria, and airborne substances. T-reg cells have a half-life of about 40-80 days. Injections of LDI are provided at 7-8 week intervals in order to produce more and more T-reg cells, slowly building up greater regulation and tolerance within our immune system.

LDI intradermal injections are administered every 7-8 weeks initially, with frequency decreasing with subsequent injections. With each additional injection, the accumulated number of T-regulator cells increases. Eventually, immunotherapy may either be discontinued or will occur with very long intervals between injections (1-5 years or more).

Who Can Be Treated with LDI/LDA?

Many conditions and symptoms are related to a loss of immune tolerance. As a result, there are many cases in which an LDI treatment plan may be indicated. These include, but are not limited to:

- Seasonal allergies
- Asthma
- Chronic sinusitis
- Repeated ear infections
- Food allergies/intolerances/sensitivities
- Chemical intolerances/sensitivities
- Histamine intolerance
- Anaphylaxis
- Migraines
- Eczema
- Contact dermatitis
- Urticaria
- Arthritis of any variety
- IBS
- Interstitial cystitis
- Chronic fatigue syndrome (CFS)
- Fibromyalgia
- Candida/fungal-related illness
- Hyperactivity/ADD/ADHD
- Autism
- Autoimmune conditions including Crohn's and Ulcerative Colitis.(3)

What to Expect

If you are a good candidate for LDI, your doctor will recommend either a basic or advanced protocol. The basic program includes 3 treatment sessions and 1 follow-up, spread out over 6-8 months.

The advanced program includes 5 treatment sessions and 2 follow-ups, spread out over 10-12 months. Initially, treatments occur 7-8 weeks apart, but the distance between visits may be extended depending on your response to treatment.

