

**Photo-Dynamic Therapy - PDT For: Acne & Actinic Keratosis With
Levulan (ALA) Activated Photo- Facial Multi Dimensional Therapy - MDT**

What is PDT? Photodynamic Therapy (PDT) is a special treatment performed with a topical photosensitizing agent called Levulan (5-aminolevulinic acid or ALA) and then activated with the correct wavelength of light. This is also known as "ALA/PDT or ALA treatment". These treatments remove sun damaged pre-cancerous cells from spots called Actinic Keratosis (AK). Sun damage, texture, fine lines, and blotchy pigmentation are also improved because of the positive effects of the treatment on the skin. ALA/PDT treatment also helps to control acne by shrinking and even removing overactive oil glands and can help to achieve long term acne remissions.

How much improvement can I expect? Patients with severe sun damaged skin manifested by actinic keratosis, texture, and tone changes including mottled pigmentation and skin laxity may see excellent results. You may also see improvement of large pores and pitted acne scars, especially if laser is used in combination. Active acne can improve dramatically for long periods of time.

How many treatments will it take to see the "best results"? To achieve maximum improvement of pre-cancerous (Actinic Keratosis) sun damage, acne, skin tone and texture, a series of three treatments 2-4 weeks apart is the most effective. Some patients with only sun damage are happy with just one treatment. More treatments can be done at periodic intervals in the future to maintain the rejuvenated appearance of the skin.

What is Actinic? Actinic keratosis (AK's) are rough, scaly red patches on the skin, caused by excessive exposure to the sun, that can sometimes progress to dangerous skin cancers.

How do AK's become skin cancers? AK's sometimes can become larger and thicker. These enlarged lesions may then progress to squamous cell and basal cell carcinomas. Patients may notice increased redness, tenderness, itching, and burning. Left untreated, these carcinomas may become larger, ulcerate, go deeper into the skin and eventually spread to other parts of the body. This results in thousands of skin cancer deaths each year, many of which could be prevented.

ACNE: There are many types of acne. The most common is called acne vulgaris. Just beneath the surface of the skin lie hundreds of tiny glands called sebaceous glands. Their function is to collect and excrete the oily substance called sebum, to lubricate the skin. The tiny pathway for the sebum to escape often becomes clogged and hormones stimulate excessive oil secretion. A bacterium called propionibacterium acne (p.acne) grows inside the glands. In a short time, the area swells up, and forms a pimple on the skin.

Controlling acne: There are many treatments for moderate acne, including creams, washes and medications. If your case of moderate or severe acne is not responding to medications or other conventional treatments, then try Levulan ALA. Combined with a light source, Levulan ALA kills the p.acnes bacteria in your skin and shuts down sebaceous glands.

Procedure Steps:

- First step:** During the first step the facial skin is cleansed and then a gentle exfoliation is performed with a jet of fine mineral crystals passing over the skin's surface, known as Microdermabrasion or the skin may be cleansed with a "clinical peel". With these treatments the dead skin cells are removed from the outermost layer of the skin. This step is done to enhance the absorption of the ALA medication .
- Second step:** The treatment utilizes a drug, called Levulan (ALA). This is applied topically, directly to the target lesions by gently dabbing the wet tip of the Levulan applicator. The patient then waits in a dim lighted room for a period of 1-3 hours. This period is called the incubation time.
- Third step:** The area of skin which was treated with the Levulan is now illuminated to activate the Levulan. There are several ways to do this; BLU-U Light System, Intense Pulsed Light System or Laser. Light activation results in the release of singlet oxygen that damages surrounding cell membranes. During this procedure, protective eye wear should be worn. Patients may feel stinging or burning within the targeted lesions when it is exposed to the light or laser source.

Homecare *(All patients will receive a homecare sheet post treatment)*

Patients should avoid exposure of the areas treated with Levulan to sunlight or bright indoor light for 24 hours following this light activation. Exposure may result in an increased stinging and /or burning sensation and may cause severe temporary redness or swelling of the lesions/areas treated.