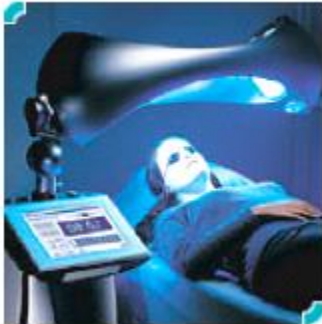


## Photodynamic Acne Treatment Photodynamic Therapy



Photodynamic Acne Therapy is a safe and highly effective method of treating a variety of skin conditions--including the acne that plagues so many teenagers. Very few of us pass through adolescence without experiencing some form of blemish or pimple. Contrary to popular belief, acne is not caused by poor diet, stress or chocolate. Genetics, hormones, clogged pores and bacteria are the major causes of acne. These factors cause the sebaceous glands (oil producing glands in the skin) to produce excess oil (sebum), which combined with dead skin cells, clog the opening of the pores. Bacteria, *Propionibacterium acnes* (*P. acnes*) forms in the pores creating red inflamed pimples, pus filled whiteheads or black heads.

Photodynamic Acne Therapy is an alternative to systemic oral drugs such as Accutane, which carries significant risks and side effects. A clear, painless solution of a photosensitizing agent called Levulan is applied to the surface of the skin. Thirty to sixty minutes later it is activated by a blue light which activates the porphyrins in the bacteria, and results in a photodynamic effect that kills the bacteria.

## *What is Photodynamic Therapy? (PDT)*



Photodynamic Acne Therapy (PDT) is a process by which a photosensitizing agent (Levulan) is applied to your skin. A Photosensitizing agent is a special solution applied to the skin that is activated by a specific wavelength of light, which “turns it on.” Levulan has been used extensively for the treatment of a variety of different skin conditions. Sun damage, fine lines, and blotchy pigmentation are also improved because of the positive effect of Levulan and the light treatment. ALA/PDT treatment also has the unique ability to minimize pores and reduce oil glands, effectively treating stubborn acne vulgaris, acne rosacea, and improve the appearance of some acne scars.

Levulan is revolutionizing how we perform skin rejuvenation and how we treat sun damaged skin. Levulan is a 20% solution of Aminolevulinic Acid (ALA). ALA is a “natural” product found in all humans throughout the body. It is a precursor for hemoglobin synthesis. (You wouldn’t be able to make red blood cells to carry oxygen without ALA in your body.)

### *Understanding Acne*

Acne results from the obstruction and inflammation of the sebaceous glands, and it affects 80% of the human population. Acne typically begins in adolescence with hormonal changes. However, there are many older individuals who suffer from “adult acne.”

There are different levels of acne ranging from milder comedonal (blackheads and whiteheads) to moderate, pustular, on to severe cystic acne. In many cases, several or all of these levels of acne can be present on an individual simultaneously.

Prior to Photodynamic Acne Treatment, the best available treatment option for *resistant and cystic acne* was Accutane. However, with Accutane there are many *systemic\** side effects including birth defects, liver abnormalities, mood depression, and virtually all patients get dryness and night vision

changes. \*Systemic treatments are any medications that are taken orally, injected or infused that affect the entire body system. PDT Acne Treatment provides a viable alternative to all types of acne treatment without having negative systemic effects.

### ***Photodynamic Acne Treatment Procedure***

The Levulan, which is a clear painless solution, which is applied to your skin and left on for 15 60 minutes. It is then activated with a specific wavelength of light called BLU-U or Clear-Light. This takes about 8-10 minutes. The Levulan is absorbed by active cells like acne sebaceous gland, making the targeted acne cells more sensitive to the light.

This combined interaction of the solution and the light is what gives rise to the term "photodynamic therapy." The Levulan will also target sebaceous hyperplasia (which are those small (1-3mm), benign bumps under your skin) and the papules of acne rosacea. The treatment reduces skin oiliness and minimizes the appearance of pore size. The entire skin texture improves following a Photodynamic Acne Treatment.

### ***Photodynamic Therapy with Levulan is indicated for:***

- Preventing skin cancer
- Improving wrinkles
- Reducing pore size
- Improving skin texture
- Improving pigmentation
- Treating moderate to severe cystic acne
- Treating sebaceous hyperplasia

### ***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 improvements of large pores and pitted acne scars. Active acne can improve dramatically.

### ***How many treatments will it take to see the "best results"***

To achieve maximum improvement of pre-cancerous (actinic keratoses) sun damage, skin tone and texture, a series of three treatments 2-4 weeks apart

is the most effective. Some patients with only actinic keratoses 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 are the advantages?***

- The ALA/PDT treatment at our clinic is PAINLESS versus liquid nitrogen, d-FU, and Aldara.
- Reduced Scarring and improved cosmetic outcome compared with cautery, surgery, and Efudex. Liquid Nitrogen can leave white spots of your skin.
- Levulan improves the whole facial area treated, creating all one color, texture, and tone rather than just spot treating with liquid nitrogen, cautery, and surgery.

***What are the disadvantages?***

Following PDT, the treated areas can appear red with some peeling for 2-7 days. Some patients have an exuberant response to PDT, and experience marked redness of their skin. Temporary swelling of the lips and around your eyes can occur for a few days. Darker pigmented patches called liver spots can become temporarily darker and then peel off leaving normal skin. (This usually occurs over seven to ten days.) Repeat treatments may be necessary as PDT medicine is not an exact science.

***Acne Treatment with BLU-U®***

A special BLU-U® blue light treatment that destroys acne bacteria is an option which doesn't depend on medication. The special blue light kills the acne bacteria in your skin. You will cleanse your skin and protect your eyes with special glasses provided by the staff. You are then placed in front of a light for a short time. Optimal results will be achieved if you follow the twice

a week schedule of blue light treatments. After several weeks you will see improvement.