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# Photodynamic

Photodynamic therapy (PDT) is a special treatment performed with a topical photosensitizing agent called Levulan (5-aminolevulinic acid or ALA) activated with the correct wavelength of light. This is also known as "ALA/PDT" treatment. These treatments remove sun damaged pre-cancerous zones and spots called actinic Keratosis. 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.

## Expected Improvement

Patients with severe sun damaged skin manifested by Actinic Keratosis, texture, and tone changes including mottled pigmentation and skin laxity may see excellent results.

## Treatments Needed

To achieve maximum improvement of pre-cancerous (Actinic Keratosis) sun damage, skin tone and texture, a series of three treatments 2-4 weeks apart is the most effective. Some patients with only Actinic Keratosis 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.

## 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.

## Advantages

1. Easier for patients than repeated topical liquid nitrogen, Efudex (5FU) or Aldara because the side effects are minimal, rapid, healing, and only 1-3 treatments are required.
2. The ALA/PDT treatment at our clinic is painless versus liquid nitrogen, 5-FU and Aldara.
3. Reduced scarring and improved cosmetic outcome compared with cautery, surgery, and Efudex. Liquid nitrogen can leave white spots on your skin.
4. Levulan improves the whole facial area treated creating one color, texture and tone rather than just spot treating the liquid nitrogen, cautery and surgery.

## Summary

PDT matches the "Ideal Treatment" for actinic damage, and it is well tolerated, easily performed by a specialty clinic environment, it is non-invasive, and has excellent cosmetic outcome.

## Treatment

1. Make sure your skin is clean and free of all make-up, moisturizers, and sunscreens. Bring a hat, sunglasses, and scarf when appropriate to the clinic.
2. You must sign a consent form.
3. An acetone scrub is performed. This will enhance the absorption of the Levulan and give much more even uptake. In some patients, microdermabrasion will also be performed immediately prior to the application of Levulan.
4. Levulan is applied topically to the whole area to be treated.
5. The Levulan is left on for 30-60 minutes before the treatment.

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6. The Levulan is activated with the BLU-U. This unique spectrum of light activates the Levulan.

7. Post-treatment instructions will be given to you to care for your improved skin.

#### Home Care Instructions

##### Day of Treatment

1. If you have any discomfort, begin applying ice packs to the treated area. This will keep the area cool and alleviate any discomfort, as well as help keep down and swelling. Swelling will be most evident around the eyes and is usually more prominent in the morning.
2. Remain indoors and avoid direct sunlight.
3. Apply moisturizing cream.
4. Take analgesics such as Advil if necessary.

##### Day 2-7

1. For female patients, you may begin applying makeup once any crusting has healed. The area may be slightly red for over 1 week.
2. The skin will feel dry and tightened. Moisturizer should be used daily.
3. Avoid direct sunlight for at least 48 hours after treatment. Use a total block zinc oxide based sunscreen with a minimum SPF 50.