

PHOTODYNAMIC THERAPY (PDT) PATIENT GUIDE

WHAT IS PHOTODYNAMIC THERAPY?

Photodynamic therapy (PDT) is a special treatment performed with solution that sensitizes your skin to light. The solution is called Levulan (5-aminolevulinic acid or ALA) and it is applied to your skin for 30-90 minutes. Afterwards, a blue light is shined over your skin for 17 minutes to activate the solution. This reaction between the light (photo) and the chemical treats sun damaged pre-cancers called actinic keratosis (AK). Sun damage, fine lines, and blotchy pigmentation also improve although these treatments are not FDA approved. PDT may also minimize pores and reduce oil glands, improving stubborn acne vulgaris and acne rosacea.

HOW MUCH IMPROVEMENT CAN I EXPECT?

The greatest improvement is in reducing precancerous AKs. The cosmetic improvements, such as smoother texture, less oily skin, smaller pores, and less acne may also be seen and is patient dependent. Some patients see mild while others have dramatic improvement.

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 3-5 weeks apart is most effective. (Some patients with just actinic keratoses are happy with one treatment.)

WHAT ARE THE DISADVANTAGES?

Following PDT, the treated areas can appear red with some peeling for 2-7 days. 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.) Maintenance treatments may be necessary.

WHAT ARE THE ADVANTAGES?

- 1. **Easier** for patients than repeated freezing (liquid nitrogen), Efudex (5-FU), or Aldara because the side effects are minimal, rapid healing, and only 1-3 treatments are required. (71% improve after one treatment, 92% improve after two treatments, and almost 100% after 3 treatments).
- 2. **Discomfort** varies with each patient but only lasts for 17 minutes during treatment, compared to weeks of irritation and wound care with Efudex or Aldara.

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3. **Uniform improvement:** PDT treats an entire region and the whole area improves. Both visible and non-visible precancers are treated. White spots, which can be seen with freezing is not seen with PDT.

In summary, PDT matches the "**Ideal treatment**" for sun damaged skin:

- Well tolerated-single 17 minute treatment (three treatments over 3-5 weeks for best results)
- Easily performed by a specialty clinic environment
- Non-invasive (no needles or surgery required)
- Excellent cosmetic outcome (particularly in cosmetic sensitive areas of the face)

TREATMENT STEPS

- 1. Patients who have a history of recurring cold sores (Herpes simplex type I) should start oral Valtrex 500 mg tablets, two tablets twice daily for three days starting this prescription the morning of your PDT treatment. The prescription for this product will be ordered for you.
- 2. 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.
- 3. You must sign a consent form.
- 4. An acetone scrub is performed. This will increase the absorption of the Levulan and maximize your benefits.
- 5. Levulan is applied topically to the whole area- whole zone to be treated (such as the whole face, back of the hands, extensor part of the forearms).
- 6. The Levulan is left on for 30-90 minutes before any light treatment.
- 7. The Levulan is activated with the Blu-U (blue light) and treatment last 17 minutes. This unique light activates the Levulan beginning with low energy levels. There may be some stinging and burning during treatment but most patients tolerate it well.
- 8. Post-treatment instructions will be given to you to care for your improved skin.

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PHOTODYNAMIC THERAPY FOR ACNE

WHAT IS PHOTODYNAMIC THERAPY?

Photodynamic therapy (PDT) is a special treatment performed with a topical photosensitizing agent called Levulan (5-aminolevulinic acid or ALA) activated with a special blue light (BLU-U). This is also known as "ALA/PDT treatment". ALA/PDT treatment has the unique ability to minimize pores and reduce oil glands, effectively treating stubborn acne vularis and acne rosacea.

WHAT ARE THE BENEFITS?

- It is quick 17 minutes of actual treatment teenagers love that.
- It improves compliance teenagers often don't use their creams or take their pills.
- No oral medications such as antibiotics or isotretinoin are necessary.
- It kills the acne bacteria as well as reducing sebaceous glands the two things that cause acne.
- It restores the skin integrity to a large degree, resulting in sometimes amazing improvement of not only acne but also acne scarring.
- It can cause long-lasting remissions.

HOW MUCH IMPROVEMENT CAN I EXPECT?

Active acne can improve dramatically. You may also see improvement of large pores and pitted acne scars.

HOW MANY TREATMENTS WILL IT TAKE TO SEE THE "BEST RESULTS"? To achieve maximum improvement, a series of 5 treaments (three with Levulan application and two with Blue Light alone).

WHAT CAN I EXPECT AFTER THE TREATMENTS?

The treated area will be pink to red in color for 2-7 days after the treatment. It is very important to use PDT aftercare products to achieve optimum results. You will need to wear a special protective sunscreen for 48 hours and avoid any outside activity for 48 hours.

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PHOTODYNAMIC THERAPY FOR ACTINIC KERATOSES (AKs)

WHAT IS PHOTODYNAMIC THERAPY?

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 precancerous zones and spots called actinic keratoses. Sun damage, fine lines, and blotchy pigmentation are also improved because of the positive effect of Levulan and the light treatment.

WHAT ARE THE BENEFITS?

- It is easier for patients than liquid nitrogen, 5-FU, or Aldara because it is virtually painless, the side effects are minimal, there is a quick recovery time, and few treatments are necessary.
- There is reduced chance of scarring and improved cosmetic outcome compared with other treatment modalities.
- It treats the whole area rather than just spot treating lesions, resulting in clearance of subclinical lesions and prolonged remission.
- It has both medical and cosmetic benefits

HOW MUCH IMPROVEMENT CAN I EXPECT?

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

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 2-3 treatments are most effective. (71% improve after one treatment, 92% improve after two treatments, and almost 100% after 3 treatments).

WHAT CAN I EXPECT AFTER THE TREATMENTS?

The treated area will be pink to red in color for 2-7 days after the treatment. It is very important to use PDT aftercare products to achieve optimum results. You will need to wear a special protective sunscreen for 48 hours and avoid any outside activity for 48 hours.

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PHOTODYNAMIC THERAPY FOR SKIN REJUVENATION

WHAT IS PHOTODYNAMIC THERAPY?

Photodynamic therapy (PDT) is a special treatment performed with a topical photosensitizing agent called Levulan (5-aminolevulinic acid or ALA) activated a special blue light. This is also known as "ALA/PDT treatment". These treatments remove pre-cancerous zones. Sun damage, bumpy oil glands, fine lines, and blotchy discoloration may also improve.

WHAT ARE THE BENEFITS?

- You can utilize blue light sources for photorejuvenation that wouldn't by itself be able to treat sun-damaged skin (i.e. pigment and vascular).
- You can take away pre-cancerous cells, something that you cannot do with traditional photorejuvenation.
- You can reduce the oiliness of sebaceous skin, or reduce sebaceous gland hyperplasia.

HOW MUCH IMPROVEMENT CAN I EXPECT?

Patients with severe sun damaged skin will see the most improvement. Rough, sandpaper texture will become smoother and have less precancerous changes. Skin becomes smoother and the tone becomes more even. Oily glands and pores may also become smaller.

HOW MANY TREATMENTS WILL IT TAKE TO SEE THE "BEST RESULTS"?

2-3 treatments will show marked improvement of sun damage, skin tone, and texture.

WHAT CAN I EXPECT AFTER THE TREATMENTS?

The treated area will be pink to red in color for 2-7 days after the treatment. It is very important to use PDT aftercare products to achieve optimum results. You will need to wear a special protective sunscreen for 48 hours and avoid any outside activity for 48 hours.

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Care after Blu-Light Treatment (PHOTODYNAMIC THERAPY (PDT))

- 1. AVOID direct sunlight/sun exposure 48 hours after your blue light treatment. Wear your beautiful wide brim hat and stay indoors as much as possible. Remember that sunlight can penetrate through car and home windows.
- 2. Burning and stinging can last up to 24 hours after your Blu-Light treatment. Ibuprofen taken as directed over-the-counter as well as ice packs is helpful for these symptoms.
- 3. For the first 7-10 days, treat your skin like a sunburn and moisturize 4-6 times daily with either Aquaphor ointment or Vaseline petrolatum (both over-the-counter).
- 4. Wash your skin with clean water, normal saline, or vinegar soaks (see below)
- 5. Do not allow any scabbing or crusting to develop. If you develop crusting, use vinegar soaks (1 teaspoon white vinegar plus 1 cup clean water) to gently remove the crusts or place a gauze over the crusting and allow warm shower water to gently remove. Do not forcibly pick off the scabs/crusts.
- 6. Redness and swelling may last up to 4 weeks after your Blu-Light treatment.
- 7. Sunscreen (UVA and UVB protection, SPF 30 or greater) and hats are recommended to maintain the benefit you have gained with the Blu-Light treatment.
- 8. Please call us (**281-943-6640** 8 AM to 5 PM Mon-Thurs and 8AM-2PM Friday) if you observe the following:
 - a. fever greater than 101 Fahrenheit.
 - b. burning stinging and or itching that increases after 24 hours
 - c. pus, drainage or pustules
 - d. blisters, especially if painful

Avoid scabbing, crusting like these two photos by moisturizing frequently (4-6x daily) with Aquaphor ointment or Vaseline petrolatum.



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