

Photodynamic Therapy for Acne

Krauss Dermatology, Wellesley, MA

1. What is photodynamic therapy?

Photodynamic therapy (PDT) is the use of a medication activated by light. PDT for acne utilizes a topical (on the skin) solution in conjunction with a blue light, laser or intense pulsed light source. This treatment acts by shrinking sebaceous glands as well as killing bacteria in the glands. No oral medications are required, eliminating the side effects associated with oral antibiotics and Accutane.

2. How is the procedure performed?

The skin is swabbed to remove oils. Levulan Kerastick® (aminolevulanic acid) is then applied to the skin and left on for approximately 60 minutes before the medication is washed off. The patient then rests in a reclining position with goggles on while a blue light shines on the skin for eight minutes. In some patients, Intense Pulsed Light (IPL) may be used instead of the blue light to help with marks and scars from previous acne breakouts. A combination sunscreen/moisturizer is then applied.

3. Is photodynamic therapy painful?

A slight stinging, tingling or warm sensation may be noticeable during treatment with the blue light. Stinging or discomfort is greater with Intense Pulsed Light (IPL). For those patients having IPL photodynamic therapy, an over the counter cream called LMX (4 or 5%, 30 gms) may be special ordered at your local pharmacy. It can be applied in the office by our staff after the Levulan has been applied.

4. Are there any risks or side effects of treatment?

Redness, peeling, swelling, increased warmth and tingling sensations may occur for 1 or 2 days after treatment. Rarely crusting, darkening or lightening of areas of the skin, intense redness and prolonged swelling or stinging may occur. These generally resolve with proper skin care. Sun avoidance is absolutely necessary for 48 hours after the procedure. A sunscreen containing zinc oxide must be worn daily. Patients must wear a hat to protect the face from sunlight while outside during this 48 hour period as well.

5. Is Photodynamic therapy FDA Approved?

PDT has been FDA approved for treatment of precancerous lesions (actinic keratoses). PDT is not yet FDA approved for acne. The use of blue light without the use of topical medication has been approved for acne treatment, but results may not be as dramatic or long lasting as with PDT. PDT is also being used for cosmetic and medical treatment of facial sun damage as well as to treat various cancers.

6. How many treatments do I need?

Current recommendations suggest approximately 4 treatments spaced 2 to 3 weeks apart are necessary to achieve results. Recent data suggests approximately 75%-90% of patients obtain significant improvement from this regimen. Clinical trials are currently being performed to confirm this data. Improvement may last for up to 6 months or longer. Topical acne medications may be used to prolong remissions. Some patients find maintenance treatments 1-2 times per year are helpful in maintaining results.

Patient Instructions for Photodynamic Therapy

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Pre-PDT Instructions:

1. It is imperative to protect the treated skin from the sun for a full 4 weeks prior to PDT. This is best accomplished by the use of spf 30 sunscreen daily (containing zinc oxide) and a hat worn during times of greater exposure to the sun's rays. Any tan or "color" from the sun can increase the chance of discoloration. Artificial tanners should be stopped 3 weeks before treatment.
2. Wash your face well just prior to your appointment to remove any make-ups or creams.
3. For those who are having combination treatment with IPL, an over the counter cream called LMX (4 or 5%, 30 gms) may be special ordered at your local pharmacy. Bring the tube with you to your appointment. One 30 gram tube costs about \$60 and is good for approximately 2-3 treatments.

Post-PDT Instructions:

1. Sun protection including spf 30 sunscreen with zinc, and a hat, are mandatory **for at least 48 hours** after each treatment. Reapply frequently. We recommend Skinceuticals Physical UV Defense (contains zinc and titanium) which can be purchased at our office. Reapply frequently. Avoid direct sunlight to the face even for minute. Wear sun protection as above even when sitting near a window or in a car.
2. Make-up may be put on gently the following day unless there is crusting or intense redness.
3. Scrubs and facials must be avoided for at least 1 week after the procedure.
4. Retin A, Differin, Tazorac and glycolic acid products may be restarted after 5 days only if the skin is no longer red, swollen or peeling.
5. Fine scale and peeling as well as mild to moderate redness are to be expected. You may use a mild moisturizer in these areas. Any areas of oozing or crusting should be covered at least 3 times per day with Vaseline petroleum jelly or Aquaphor ointment. Notify our office if heavy crusting, intense redness or swelling, or other unwanted side effects occur.
6. Symptomatic relief may be obtained by placing cool tapwater compresses on the skin. Compresses made from one cup of cool tapwater mixed with one tablespoon of white vinegar may provide additional relief from discomfort if necessary. Feel free to use Tylenol (acetaminophen) or Advil (ibuprofen) for any discomfort.