

# Photodynamic Therapy

The Wave of the Future for Acne Light Treatments



By Angela Palmer

Acne light treatments have been getting more attention in recent years, and maybe none so much as photodynamic therapy. Short contact photodynamic therapy is rapidly emerging as the new "wonder" treatment for those who suffer from moderate to severe acne. Could photodynamic therapy really be the wave of the future when it comes to treating acne?

## What is Photodynamic Therapy?

Photodynamic therapy (PDT) is a non-invasive therapy that utilizes light treatments along with an application of a photosensitizing agent, typically 5-aminolevulinic acid (ALA).

The photosensitizing agent is applied to the skin, causing the skin to become more susceptible, or receptive, to light. After the photosensitizing agent is removed, a light treatment is administered. PDT was originally approved by the U.S. Food and Drug administration to treat cancer, and is often used to treat actinic keratosis. It is now being studied as a safe and effective treatment for acne.

PDT is thought to work by shrinking the skin's oil glands. This can drastically reduce the amount of oil within the pores, thereby reducing comedones. For those with moderate to severe acne that doesn't respond well to traditional topical treatments, this is good news. ALA-PDT may also kill bacteria that cause acne breakouts and normalize the shedding of dead skin cells within the follicle. It also seems to improve the skin's overall texture, and holds promise in the repair of acne scarring.

## Treatment Method

While many patients participating in early photodynamic therapy trials reported moderate to severe pain, the treatments administered today are virtually painless, due to "short contact" therapy.

Most short contact photodynamic therapy treatments start with microdermabrasion, to remove excess dead cells on the skin's surface and enhance ALA penetration.

The photosensitizing agent (ALA) is applied to the skin and allowed to set for a period of 15 to 60 minutes. The agent is then removed and the skin is treated, most commonly, with blue light.

A series of three to five treatments are usually performed at a period of two to four week intervals. The number of treatments recommended depends on the severity of acne. Some patients may notice results after the first treatment.

Photodynamic therapy can be used in conjunction with other acne treatments, such as topical retinoids or salicylic acid.

## Results

The results of ALA-PDT for acne treatments seem promising. Some studies have shown a significant improvement of acne breakouts, improvement of skin texture, and the softening and reduction of acne scars. A few patients have even reported a 50% to 75% improvement in their acne. PDT can be used to treat moderate to severe cystic acne, and may provide results similar to those achieved with Accutane (isotretinoin).

## Side Effects

The side effects of short contact photodynamic therapy may include redness and/or peeling of the treatment site. Patients have described it as being similar to a sunburn. It was generally mild and resolved quickly.

## Conclusions

Results achieved with ALA-PDT seem promising. Unfortunately, photodynamic therapy treatments can cost more than conventional acne treatments, and they are not often covered by insurance. However, systemic medications usually prescribed for severe acne, such as Accutane, have serious side effects that short contact ALA-PDT does not. Photodynamic therapy may provide an effective alternative to systemic medications.

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