

Blue Light with Levulan

For Acne and Actinic Keratoses

Blue Light with Levulan is a type of photodynamic therapy (PDT) that consists of the topical application of Levulan (aminolevulinic acid) combined with BLU-U, a specialized blue light treatment.

The science behind the treatment

Levulan is a substance that occurs naturally in the body in small amounts. After it is applied and absorbed into the skin it is converted into a potent photosensitizer, protoporphyrin IX. Because Levulan absorbs into actinic keratoses and sebaceous glands it selectively targets them. The blue light then activates these protoporphyrins which leads to shrinkage of these tissues. By shrinking the sebaceous glands, acne is improved.

Information about the treatments

Some patients will improve after just 1 treatment. Several treatments (usually 2-4) are necessary to significantly clear moderately-to-severe acne and actinic keratoses. Treatments are spaced 3-4 weeks apart. Acne may stay clear (be in remission) for 6-12 months. Results will vary among individuals. Visits consist of application of the Levulan, waiting while the Levulan absorbs into the skin for 30 - 60 minutes, then sitting under the BLU-U for 8 - 15 or more minutes. Treatment times for actinic keratoses (pre-cancers) are longer than for acne. Except for mild stinging or burning, the treatments are usually painless.

Pre-treatment instructions - Face must be completely clean without makeup, creams or lotions.

Blue Light with Levulan PLUS combines the Blue Light with Levulan with a **Medical Microdermabrasion** treatment. Having a microdermabrasion treatment before the Levulan is applied enhances the results and may reduce the number of treatments needed. This combination is best used for the treatment of actinic keratoses.

Insurance and Medicare reimbursement for actinic keratoses treatment

Medicare and some insurance companies may cover this treatment for actinic keratoses, they do not usually cover it for acne. In some instances we may be able to bill the Blue Light treatments to your insurance or Medicare. If we are unsure if the cost is covered by your insurance you must pay for your treatment on the day of your treatment. If insurance later does pay, you will be reimbursed what the insurance company covered. If we bill your insurance for the treatment and it is not covered by your insurance, you will be responsible for payment in full.

Mohs Surgery- Micrographically Controlled Surgery for Skin Cancer

What is Mohs Surgery?

Named after the surgeon who developed the technique in the late 1930's, Mohs surgery is an outpatient form of excisional surgery which can effectively remove most skin cancers one layer at a time. After each layer is removed, it is examined under a microscope to determine whether residual cancer remains.

The Benefits of Mohs Surgery

- It is a highly effective means of treating common skin cancers with a success rate of up to 99 %.
- It eliminates the "roots" of the skin cancer which can produce recurrences if not eradicated.
- You do not have to be put asleep and can be performed in the doctor's office, usually in 1 day.
- Use of a microscope allows the dermatological surgeon to be precise, thereby preserving as much normal tissue as possible while optimizing the chance for cure.

How is Mohs Surgery Performed?

1. A local anesthetic is used to eliminate pain. The skin cancer plus a small area around it is then removed.
2. Once removed the tissue is then color-coded with special dyes.
3. A dressing is applied to the wound and you return to the waiting room while the tissue is being processed.
4. A careful "map" is made of the treatment area corresponding to the color code used on the removed tissue.
5. The tissue is then rapidly frozen, cut into thin sections, placed on microscope slides and stained.
6. Using the microscope the dermatological surgeon examines the stained tissue and determines whether any cancer persists. If an edge of the piece removed still contains cancer cells, it is noted on the map.
7. If examination of the edges indicates remaining cancer, you are brought back in the surgery room and another layer of tissue is removed from the appropriate location. This may only be a very small piece, or could be larger. The entire process is repeated until the area no longer contains cancer cells.
8. The removal and preparation of tissue takes 20-60 minutes for each layer. You will spend only 5-10 minutes of that time in the surgery room. The average patient requires 2-3 layers for complete removal.
9. Once all of the skin cancer cells have been removed the wound is usually repaired. This may involve simply suturing two edges together or may involve a more complicated repair such as a flap or graft. This can usually be done in our office following the Mohs Surgery. Occasionally a consultation with a plastic or reconstructive surgeon may be required if the wound is very extensive.

Patient Preparation for Surgery

- **Please inform us if you take coumadin, aspirin, aspirin-containing compounds, ibuprofen (Advil, Motrin, Aleve, Nuprin, etc.), or other medications for arthritis or pain.** These medications interfere with blood clotting; thus making you bleed more than normal during surgery. If you are taking aspirin only for preventative reasons and it is not prescribed by your physician for medical problems, please stop it for 14 days prior to the Mohs procedure. Stop all other pain medications (Advil, etc) for 7 days prior. Acetaminophen (Tylenol) is okay to take at anytime. Coumadin should be discontinued if possible but you must check with your prescribing physician first. Always check with your primary physician before stopping any of these medications if you are unsure whether you need to be on them.
- If you smoke, stop (or at least cut down) for 1 week prior to your surgery. Smoking slows down healing and can increase your chances for a wound infection. Stop Vitamin E and fish oil one week prior to your procedure. If you drink alcohol, stop for 2 days prior to your surgery. Alcohol (including beer and wine) can thin your blood.
- Wear comfortable clothing. Front button shirts are better than pull-overs.
- Get a good night's sleep the night before your surgery. **MAKE SURE YOU EAT A GOOD BREAKFAST.**
- Be prepared to spend at least half the day with us (3-5 hours or more.) Bring reading material if you like.

After Surgery

- Most patients have little to no pain after skin surgery. If you have discomfort, you can take Tylenol.
- Some bleeding may occur in a few patients. Apply **constant** pressure for 10 minutes if bleeding occurs.
- Swelling and bruising commonly occur. A "black eye" is common after surgeries around the eyes or upper face. Ice packs help if applied for 10-15 minutes every 1-2 hours until bedtime the first night after surgery.
- Infection is unusual but if pus or increasing pain, warmth or redness occur you must notify our office.
- You will be given wound care instructions after your surgery. If tape is placed directly over the wound it may be left in place until it comes off by itself. You must then begin wound care once the tape is off. If a bulky dressing is placed over the tape, it can usually be removed the day following your surgery.