

## Noninvasive Upper Blepharoplasty In Relation To Surgical Blepharoplasty

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### ABSTRACT

This study was written after three years of implementation of the innovative technique Plexr, where it was found that Plexr is the latest technology for Blepharoplasty and Non Invasive Eye Lid Surgery. The study was performed in 50 patients, of whom 40 preferred the method of Plexr and 10 the surgical method. Firstly we explained to them the advantages and disadvantages of each method and the final choice was theirs. Results showed that the innovative method of Blepharoplasty with Plexr is not short on anything from the classical method of surgery. The results were equally good.

It was observed that after three years of surgery upper eyelid appeared three incidents who were subjected to surgery and needed small eyelid correction and we proposed Plexr because patients can repeat the technique many times as they wish if deemed necessary by the scientist.

**Keywords:** Plexr, Non surgical blepharoplasty, sublimation, plasma (4<sup>th</sup> state of matter), no blood, eye lid surgery, eyelid ptosis, wrinkles.

### Introduction

Plexr is a cordless micro-surgical hand operated device that transfers concentrated heat to the treated skin tissues. It uses the difference in voltage between the device and the patient's skin. The difference in voltage generates a small electrical arc, similar to a minute lightning. The small lightning causes the sublimation of the fluids contained in superficial part of the skin, without unwanted heat transmission to the adjacent tissues. Additionally it acts on the superficial layer of the skin preserving the lower layers, this will reduce drastically any potential permanent skin damage that could be caused by the misuse of conventional lasers. Place of 'birth' of the medical device is Rome Via del Buero. 'Capture' invention of new energy form was at the State University "Tor Vergata" Rome, Camerino, where Professor with thirty years of experience on the electrosurgical and President of the Italian Society of Aesthetic Medicine and Non Invasive Surgery Giorgio Fippi borrowed the natural phenomenon of lightning mode and with the internationally renowned Engineer Giancarlo Millevolte implemented the idea effectively creating a plasma generator inside the machine (plasma = the fourth state of matter) which safely allows the patient who does not wish to have surgery and for doctors to provide high quality service at low cost and equally and in many cases better results, to see 100% of the desired image.

### What is plasma?

Plasma is one of the four fundamental states of matter, the others being solid, liquid, and gas. A plasma has properties unlike those of the other states. A plasma can be created by heating a gas or subjecting it to a strong electromagnetic field applied with a laser or microwave generator. This decreases or increases the number of electrons, creating positive or negative charged particles called ions, and is accompanied by the dissociation of molecular bonds, if present.

The presence of a non-negligible number of charge carriers makes plasma electrically conductive so that it responds strongly to electromagnetic fields. Like gas, plasma does not have a definite shape or a definite volume unless enclosed in a container. Unlike gas, under the influence of a magnetic field, it may form structures such as filaments, beams and double layers.

Plasma is the most abundant form of ordinary matter in the Universe, most of which is in the rarefied intergalactic regions, particularly the intracluster medium, and in stars, including the Sun. A common form of plasmas on Earth is seen in neon signs.

Much of the understanding of plasmas has come from the pursuit of controlled nuclear fusion and fusion power, for which plasma physics provides the scientific basis.

Basic vantage point for cases of upper eyelid surgery, Plexr is a dynamic non-invasive method that allows the operator to

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urge the patient at any time during the proceedings to open his eyes, highlighting aspects of skin that still need to be treated and avoiding going after gradual and controlled maneuvers that may have cost image lagophthalmos or excessive opening of the eyes. Regarding any corrective surgery the obvious advantage of Plexr is that is also the perfect choice to avoid further suffering of the patient with correction in his private clinic in infinitesimal time.

Histological studies from the University of Cheti (Department of Pathology-Anatomy, Scarano Antonio) and the University of Athens (Department of Pathology-Anatomy, Dr. Vlachodimitropoulos Dimitris) also proved that the spots of Plexr does not pass the basement membrane of skin.

### Purpose of the study

This study aim to prove that Plexr is just as effective method as classical surgical method in eyelid relaxation. Moreover given the opportunity to patients who have severe problems with their upper eyelids (they do not choose it only for aesthetic reasons but they face problems in their everyday life) and are afraid of surgical method so choose the innovative technique of Plexr.

### Methodology

The upper eyelid blepharoplasty was performed on 50 persons. Before deciding which of the two methods to follow,

patients' were informed in detail about both methods, the time, where the surgery will take place and the recovery time. In the case of surgery the process took 20 minutes, pre-surgical markings were done before the surgery procedure as shown in picture 1, the presence of an anesthesiologist is necessary and the operation is performed in the operating room. The patient after the surgery has incisions and sutures as shown on picture 2. In the case of Plexr process it took five minutes for each session (can take up to 3), but first the patient will have to wait in the waiting room of the clinic for 30 minutes to act the anesthetic cream. Upon completion of the process, first, foundation is applied to cover any sign before the patient leave.

### *The procedure adopted for the technique of Plexr*

All patients accepted antisepsis, then their face were photograph and profile in order to see the difference of the result. The next step was to apply the anesthetic cream so as not to feel any pain by the patient and for the anesthetic cream to act; they have to wait in the waiting room for 30 minutes.

After the action of the cream, we remove it and apply the technique first on the right eyelid and then on the left. Where there is excess skin and aspects are the points that sublimated. We did not enter wrinkles but on aspects of excess skin. The machine to operate should not touch the skin as needed ionization gas, so while the micro spots were pulled out, we leave little spaces of healthy tissue. In each session we sublimated 30% of the excess skin.

**Picture 1: Before Surgical Method**

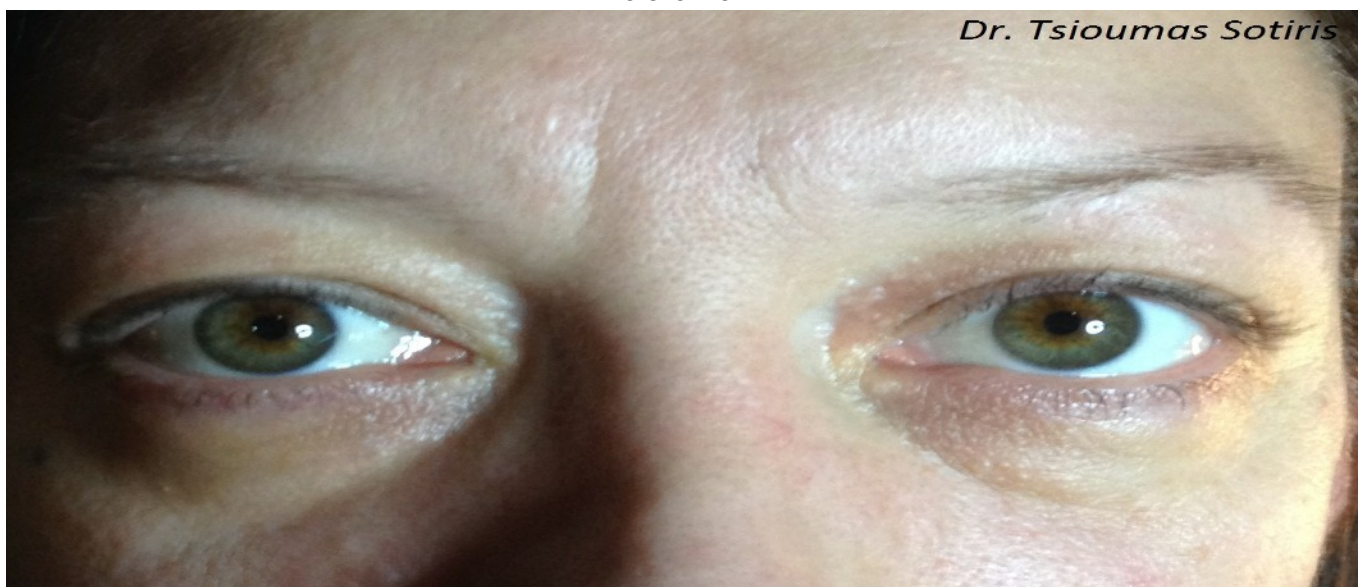


Source: Dr. Tsioumas G. Sotiris



**Picture 2: Just After Surgical Method**

Source: Dr. Tsioumas G. Sotiris

**Before Plexr**

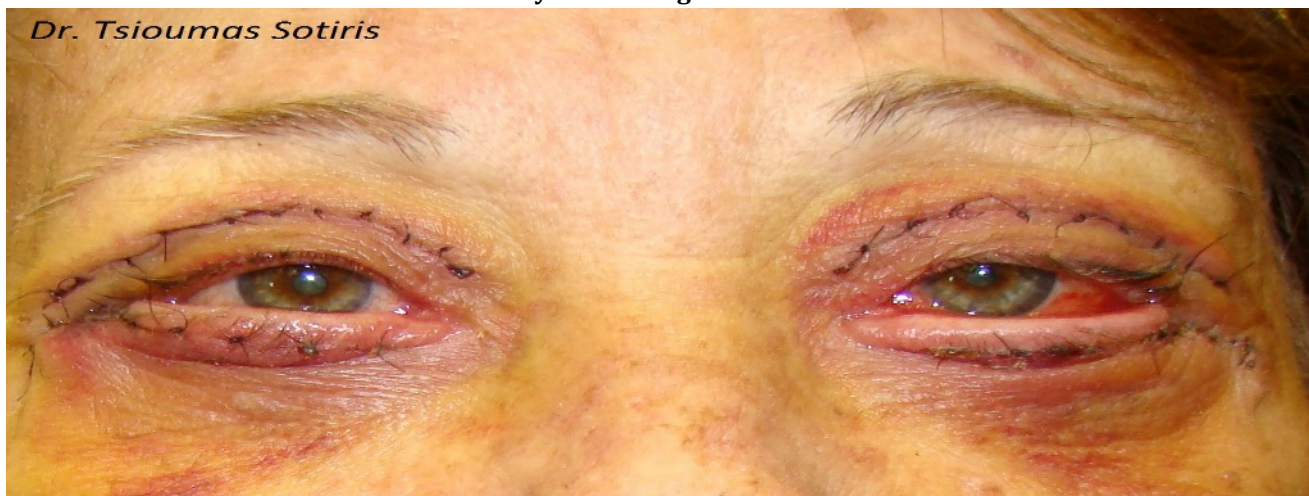
Source: Dr. Tsioumas G. Sotiris



**Just After Plexr****Result/Findings**

The results in both cases were equally good. Three patient who had done the surgical method but needed small eyelid correction, we propose Plexr. Patients needed the same recovery time and time to leave edema. The sutures were removed of 10 patients in five days and crusts created by Plexr left after 7 days. 30 out of 40 patients required more than one session every month (three sessions in total) to tackle the

problem of relaxation of the eyelids. In each session 30% of the final result were achieved whereas in the case of classical surgery the results shown in the next 15 days. The overall results showed that Plexr has superiority over the surgical procedure because of the low financial implications, the patient can repeat the procedure as many times as he or she likes, there are no complications, no change in look. Regarding the scientist engaged in aesthetic medicine need not own high specificity.

**5 Days After Surgical Method****10 Minutes After Plexr (With Foundation)**

## Discussion

The demand for cosmetic procedures at the lowest possible cost and faster recovery with better results. A large percentage of patients wanted to do upper eyelid surgery either for health reasons or for aesthetic reasons but feared the process of surgery, cutting, sutures. Through innovative technique of Plexr, the fear of patients is eliminated after the doctor inform them about the process of Plexr technique. The results after three years of application in hundreds of patients is equally well with those of classical surgery.

## Conclusion

Although Plexr is a new method, it is gaining more patients thanks to the fast recovery, lack of pain, no sutures and excellent results. The patient after having been informed in detail by the doctor, feel safe, and the majority of patients decide to do their application immediately after updating, unlike surgery that there must be some preparation before. Even the most skeptical patients after their first session, recommended the technical to people who are looking for innovative non-invasive methods for aesthetic medicine.

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