

Forget tapes and stickers, **Mariel Chow** may have found the answer to the much-elusive double eyelid.

lepharoplasty, known more commonly as double eyelid surgery, remains one of the most popular cosmetic surgery procedures among East Asians. Being Chinese, I too have been plagued by a single eyelid. If you've gone ahead and assumed that I care too much about my looks or that I am ashamed of my Asian heritage, let me explain. I love the way I look, but unfortunately, was born with asymmetrical eyes. My left eye has a prominent double lid while my right eye has redundant fat and skin with no crease or fold.

As someone who's obsessed with cosmetics, asymmetrical eyes have made it very difficult for me to apply makeup evenly. For example, more eye makeup will have to be applied on my right orbital region to produce a uniformed effect. Even then, however, the asymmetry is still pretty obvious, with photos bringing out the worst of my insecurities. Having been fascinated with double eyelid surgery, the thought of undergoing the procedure has always crossed my mind, but never materialised because going under the knife seems unnecessary and expensive. Before this, blepharoplasty was the domain of plastic surgeons.

However, with breakthroughs in medical and scientific engineering, double eyelids are finally achievable without surgery, bleeding or an operating room. Seems too good to be true? It isn't! Plexr is a revolutionary innovation which has the ability to sublimate excess skin using plasma to create fabulous results similar to that of surgery. To further investigate, I spoke to Consultant Ophthalmologist and Oculoplastic Surgeon, Dr. Sotirios Tsioumas regarding Plexr's innovative technology, and found out how it non-invasively lifts the eyes.

### WHAT IS PLEXR?

Plexr has the ability to offer non-surgical blepharoplasty. Through Plexr's plasma technology, we can create larger, brighter eyes with more prominent creases. We can also reduce dark circles and eye bags as well. Plexr is a cordless micro-surgical hand-operated device that transfers concentrated heat or



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plasma to the tissues. The difference in voltage generates small electrical arcs similar to minute lighting. This lighting will cause sublimation of the fluids contained in superficial areas of the tissue, without unwanted heat transmission to the deeper dermis. This will, of course, create good results and drastically reduce any potential skin damage.

#### WHAT IS PLASMA HEAT?

Plasma is one of the four fundamental states of matter or material. We have liquids, solids,





Blephroplasty or double eyelids achieved after Plexr non-invasive procedure.





Droopy, redundant eyelid skin is tightened and lifted to produce brighter, more youthful eyes without surgery.

gas and then, plasma. Plasma has properties unlike other states. It can be created by heating gas or subjecting it to an electromagnetic field applied with a laser or microwave generator. This decreases or increases the number of electrons and creates positive or negative charged particles called ions. The presence of a non-negligible number of charger carriers makes plasma electrically conductive and hence, responsive to electromagnetic fields. Like gas, plasma does not have a definite shape or volume unless enclosed in a container. Plasma generation happens when atoms are activated. You can transfer this energy into the tissue to trigger sublimation.

Sublimation is a passage from a solid state to gas. Once sublimation is achieved, plasma energy beams are transferred into the superficial corneocytes without affecting the basal laminae. This means it will not cause bleeding or damage to the surrounding tissues beneath. Plexr is not laser or radiofrequency; it's a plasma generator. When doctors emit radiofrequency energy, probes must constantly be in contact with the skin. With Plexr, plasma beams can only be generated when the device's tip is kept a few millimeters away from the dermal layer. When the evelid's excess skin is sublimated, the elastic fibres will shrink and create an evelid fold without cutting or bleeding, and therefore will not require stitches or an operating room.

## HOW IS THE PROCEDURE CARRIED OUT?

The Plexr device will create tiny 500-micron spots on the skin. With every spot of plasma emitted, excess skin will be sublimated and a double eyelid or crease will be created. We will first begin by pressing down on the upper brow to find out where the patient's natural crease should be. Later, we will sublimate

the top or peaks of the fold to elevate the crease. In each treatment session, we are able to sublimate at least 30 percent of the eyelid and treat only the lateral and medial region of the eye. In the Asian eye, procedural steps can be more difficult due to the additional skin and fat. In cases like this, we will have to sublimate the outer and middle aspect of the eye while the epicanthus, or inner corners, can only be treated during the second session. Follow-up procedures should be spaced at least two weeks apart to allow for sufficient healing.

IT CAN ALSO REDUCE ACTIVE ACNE, ACNE SCARS, STRETCH MARKS, POST-SURGICAL SCARS, AND EVEN AIDS IN PIGMENTATION, SUNSPOT AND TATTOO REMOVAL.

## HOW LONG IS EACH TREATMENT SESSION AND HOW UNCOMFORTABLE IS THE PROCEDURE?

Treatment time should take no longer than five minutes on each eye. The procedure can be uncomfortable, but is made tolerable when anaesthetic cream is applied. While the procedure is relatively pain-free, sublimation does result in a smell similar to burned hair. This is normal and shouldn't be cause for alarm. Anaesthetic cream should be applied half an hour before the procedure, and since this is a non-surgical procedure, there is no need for local anaesthetic injections. Patients will also be happy to know that there are no long-term side effects after treatment, because we are not using laser energy and are only treating the epidermal layer, we cannot damage the eve.





Pigmentation reduced with Plexr.





Active acne drastically reduced with minimal scarring after Plexr.





Loose, sagging and wrinkly skin on the neck is not only lifted and tightened but also looks much more rejuvenated after Plexr treatment.

# HOW LONG IS THE RELATED DOWNTIME AND WHAT CAN PATIENTS EXPECT IMMEDIATELY AFTER THE PROCEDURE?

At least 30 percent of my patients do not suffer swelling while the other 60 percent will experience mild to severe oedema. Although water retention does happen, swelling should dissipate within two days. Because plasma energy is emitted on the skin, scabbing will happen but patients needn't worry, as scabs should fall off naturally after seven to eight days. Once the scabs have fallen, there will be mild redness of the skin but that should sort itself out after one month or more. We will apply a special medicated foundation immediately after the procedure and patients should reapply the product on the affected area until scabs naturally dissipate. Aftercare is very important and patients must be careful not to wash the affected area with soap or scratch the scabs before they naturally fall

## WHAT OTHER CONDITIONS DOES PLEXR TREAT?

The Plexr soft surgery device comes with three handheld devices. Along with the treatment of all forms of blepharoplasty including dark circles and eyebag removal, Plexr's multiple handheld pieces has the ability to treat additional facial concerns including the eradication of skin lesions involving fibromas, warts, papillomas and xanthelasmas. It can also reduce active acne, acne scars, stretch marks, post-surgical scars, and even aids in pigmentation, sunspot and tattoo removal. If patients are seeking to lift and rejuvenate laxed and sagging skin, Plexr offers volumisation and lifting effects without the need for fillers and Botox. Honestly, although I may be an oculoplastic surgeon proficient in cosmetic eye surgery, Plexr has made it possible for me to conduct all forms of blepharoplasty plus many other aesthetic procedures in a safe and non-invasive manner.

### **HOW LONG DO RESULTS LAST?**

Although results can be subjective, some patients have returned with positive feedback even after a single treatment. Although the number of sessions will depend on the severity of the case presented, good results should last at least one to two years. Patients must understand that loose skin is a natural part of aging and as such, problems can recur and permanency cannot be promised. This is why we recommend follow-up procedures three or four years after the initial sessions are over and done with.