



skin tightening

Cosmetic doctor **Dr Mary Dingley** explains how to achieve skin tightening using **light therapy devices**. A non-invasive procedure that requires no down time - you can live and work as usual throughout the course of treatments.

Much has been written, both peer reviewed and non-peer reviewed, about elòs technology in the literature over the last 2 years. We have been treating patients with both the Aurora™ (combined pulsed light and electrical energy) and the Polaris™ (combined diode laser and electrical current) devices for over 18 months now. These 2 systems may also now be combined in the one platform as the Galaxy™. Patients can experience rejuvenation, acne and hair removal treatments with the Aurora and wrinkle reduction / skin laxity treatments with the Polaris. When both treatments are combined in the same session an elòs PhotoFirm™ treatment is performed.

Clinical evidence now supports the fact that the Polaris is effective in dermal remodelling via collagenesis in the deep dermis. The results we have seen in my practice are significant and we note continual improvement in these patients for up to 9 months post

treatment. Non-surgical skin tightening is now a reality in trained hands.

Skin tightening is the new catch phrase and with the Polaris™ or Galaxy platforms this can be achieved.

With the advent of low power pulsed light devices being used in the beauty industry to variable results, many patients are now looking for more effective but safe options from the medical profession – but still with no to minimal discomfort or down time. These patients can be treated with consistent results, low risk and high patient satisfaction.

A recent peer reviewed paper by Dr Tina Alster (Journal of Cosmetic and laser Therapy; 7: 11 – 15, 2005) concluded that the Polaris WR™ is a safe and effective for the treatment of mild to moderate rhytides and skin laxity. She also stated in the press that “While there are many non-ablative

lasers and light sources available, the elòs technology actually helps to tighten tissue as well as help with collagen remodelling and skin tone. In our study using the Polaris WR, we showed vast improvement of wrinkles around the eyes and the mouth, as well as improvement in the skin tone and laxity of the cheeks.” Dr. Alster continued, “In my clinical practice, I have never before tested an aesthetic device with such high satisfaction levels. In this case 93 percent of my patients were satisfied with the results we achieved with the Polaris WR treatments. The device tightened the skin as well as helped reduce wrinkles for my patients and provided them with an effective aesthetic treatment other than cosmetic surgery.”

We have observed similar results, and 2 cases are presented here which are indicative of what can be achieved with the Polaris.

Patient 1

Female aged 58 years. This patient has a very aged appearance with multiple very deep wrinkles and poor skin tone and texture. Treatment recommendation was a series of 5 treatments using a combination of the Aurora (for pigmentation) and Polaris (for Skin tightening). Treatments were performed 2 weeks apart, 1 full face Aurora and 5 full face Polaris passes were made. Contact skin cooling is available through the machines and additionally the Synercool or Cryo 5 was used. This device cools air to -25 deg Celsius and improves patient tolerance of the treatment, reduces side effects and decreases risk of thermal injury. Follow up with the patient was at 6 months.

This patient had significant overall improvement in skin texture and tightening. This patient has many deep wrinkles and would benefit from many different treatment modalities. She was after a global, subtle improvement without resorting to surgery or incurring down time. She is very happy with the improvement in her crows' feet and nasolabial lines. The husband of a friend, who had not seen her for some time commented 5 times on how much better she looked.



Before



After treatment with Aurora & Polaris



Before



After treatment with Aurora & Polaris

Patient 2

Female aged 57 years. This patient presented with acne scarring and poor skin tone with deep oral commissure depressions.

Five treatments were performed at 2 week intervals. The "after" photo was taken at the time of the 5th treatment.

This patient showed significant improvement in the depth of the oral commissure creases and general skin tone. Her whole face is now less flaccid and seems more compact due to the tissue tightening effect.

Anecdotally the patient also stated how many of her friends had noticed the improvement, that she looked much younger and a number asked her if she had had surgery.



Before



After treatment with Aurora & Polaris

the power of

elōs



Photos courtesy of Tina S. Alster M.D.
3 Months Post 3 WR Treatments

Polaris powered by elōs

The Skin Tightening System

Take your practise to the next level with
Polaris WR - powered by elōs

Unlike other systems, Polaris is backed by Incision's
Ultimate Customer Care Commitment. This means that
your system will be free from applicator and service
costs for 3 years.

- > Minimal Downtime
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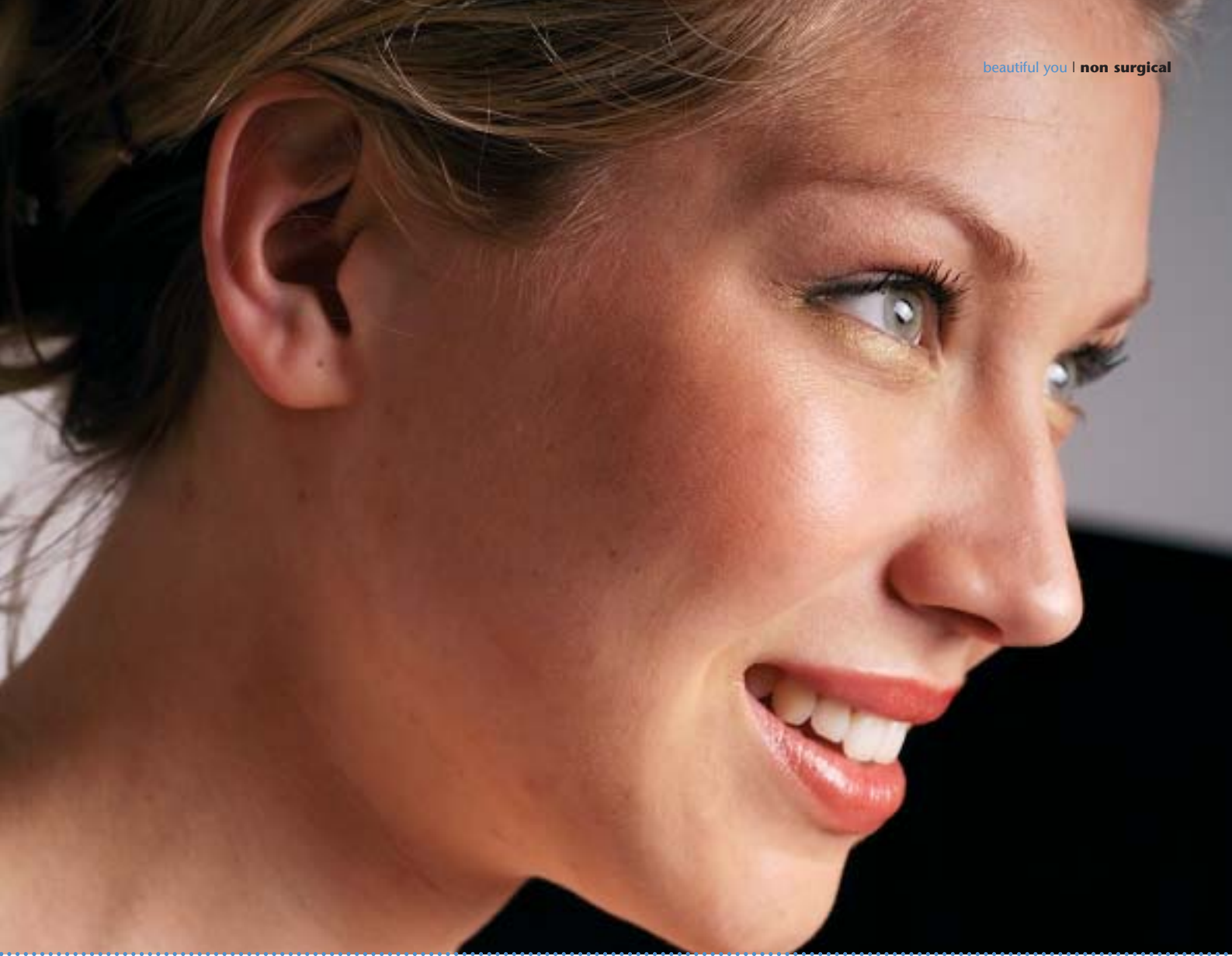
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radio frequency technology

Dermatologists Dr Seeman N Doshi and Dr Tina S Alster from Washington Institute of Dermatologic Laser Surgery, Washington DC, US, have recently published a paper entitled 'Combination radiofrequency and diode laser for treatment of facial rhytides and skin laxity'

" Radiofrequency technology generates heat as a result of tissue impedance and is dependent on the electrical properties of tissue"

Nonablative dermal remodeling has gained tremendous popularity among patients and practitioners,

offering a low incidence of adverse effects and modest improvement in the various signs of cutaneous photoageing, including rhytides, dyschromias and telangiectasias. The evolving list of nonablative laser and light systems used for skin rejuvenation includes pulsed dye (585,595nm) intense Pulsed light or IPL (500-1200nm), Nd:YAG

(1064,1320nm), diode (910,1450nm) and Er:Glass (1540nm) lasers. Despite specificity for different dermal chromophores, the end result of the targeted energy is stimulation of fibroblasts and new collagen formation. Radiofrequency technology is another promising addition to the nonablative skin rejuvenation armamentarium. Unlike traditional laser systems that

generate heat by targeting specific chromophores, radiofrequency technology generates heat as a result of tissue impedance and is dependent on the electrical properties of tissue. Controlled thermal skin injury has been shown to effect a conformational change in the structure and length of collagen and may also induce fibroblast response for long-term collagen remodeling. Interest in utilizing radiofrequency energy to enhance deep tissue tightening and thus improve skin laxity has grown, as radiofrequency energy has been shown in multiple studies to tighten tissues, producing a noticeable skin lifting effect.

“ The combination IPL/RF device has been shown to have the ability to improve skin rejuvenation, hyperpigmentation and fine lines”

As the demand for noninvasive procedures to address cutaneous ageing issues has increased, nonablative lasers and radiofrequency (RF) devices have recently emerged. A novel device, Polaris WR (Syneron Medical Ltd, Israel), which combines radiofrequency and diode laser energies (termed electro-optical synergy or ELOS), has been developed in an attempt to address both facial rhytides and skin laxity. This device delivers radiofrequency energy ranging 10 J/cm³ to 100 J/cm³ and optical energy (910nm diode) ranging 10 J/cm² to 50 J/cm² in a sequential manner through unique bipolar electrode tip. Thermoelectric cooling at 5 deg Celcius provides epidermal protection throughout the pulse sequence. This prospective study conducted by dermatologists Dr Seeman N Doshi and Dr Tina S Alster, was initiated to evaluate the efficiency and safety of Polaris WR in the treatment of mild to moderate facial rhytides and skin laxity.

In the study, 20 patients (skin phototypes 1-111) with mild to moderate rhytides and skin laxity received three treatments at three-week intervals with a combined

radiofrequency and diode laser system (Polaris WR). Radiofrequency energy was lowered by 10% for treatment of the forehead and periocular regions. At each subsequent treatment session, the energies were increased by 10% as indicated by the patient's immediate clinical response and pain tolerance. An additional (fourth) pass was performed over select areas including nasolabial, mesolabial, and lateral canthal rhytides as indicated by lesional severity and tissue response. Three treatments were performed at 3-week intervals by the same operator.

“ Unwanted dark and light hair has also been significantly reduced with the combination RF/IPL system”

Clinical photographs of treatment areas using identical camera settings, lighting, and patient positioning were obtained at baseline, at each 3-week follow-up visit, and at 3 and 6 months after the final treatment session. At each patient visit, the degree of clinical improvement in 4 separate treatment areas (nasolabial/mesolabial folds, perioral region, periocular area, cheek laxity) was assessed by the investigator and an independent assessor using a quartile grading scale (0 = no change from baseline: 1<25% improvement: 2=26-50% improvement: 3=51-75% improvement; 4>75% improvement.

Clinical improvement of nasolabial and mesolabial rhytides was observed at 3-week, 6-week, 9-week, and 3-month post-treatment evaluations. At the final 6-month assessment, all patients exhibited improvement with a mean clinical score of 1.63

Clinical improvement in both areas was again noted to be slightly reduced at 6 months. Skin laxity in the cheek and jowl regions was improved at 3 weeks, 6 weeks, 9 weeks and 3 months post treatment. Interestingly, continued improvement of skin laxity was noted 6 months following the series of treatments. No significant differences were seen in clinical improvement scores between masked assessor's evaluations and the investigator assessments.

Patient satisfaction surveys reflected the clinical improvements observed. Side effects were mild and limited to transient erythema and oedema. No scarring or pigmentary alteration was seen. 2 patients (10%) reported no discomfort, 16 patients (80%) experiencing mild pain, and 2 patients (10%) experiencing moderate pain limited to the forehead and periorbital areas.

Dr Alster concluded that the Polaris WR, which sequentially delivers radiofrequency and diode laser energy, is safe and effective for treatment of mild to moderate facial rhytides and skin laxity. Multiple treatment sessions and laser passes were well tolerated by patients due to the minimization of individual optical and radiofrequency energies used.

The data reported demonstrates that a combination of diode laser and radiofrequency device offers a safe and effective nonablative method to tissue laxity and facial rhytides. Electro-optical synergy (ELOS) technology was first demonstrated with the Aurora SR device (Syneron Medical Ltd, Israel) in which intense pulsed light and radiofrequency energies are simultaneously applied to the skin. The optical energy preheats the target tissue, attracting the longer application of radiofrequency towards the target structure due to lowered impedance at the target.

(1) The combination IPL/RF device has been shown to have the ability to improve skin rejuvenation, noticeable improvement in erythema, telangiectasia, hyperpigmentation, lentiginos, and fine lines

(2) Unwanted dark and light hair has also been significantly reduced with the combination RF/IPL system, presumably by drawing optical energy to the nonpigmented hair via non selective radiofrequency

(3) The majority of patients demonstrated improvement of facial rhytides and skin laxity after a series of combination RF/diode laser treatments. Progressive improvement was observed after a series of treatments using

multiple successive laser passes. The clinical results were maintained for the 6-month follow-up period. Even further improvement of cheek laxity was noted at the final evaluation, indicating prolonged progressive tissue

tightening results from treatment. The Polaris WR offers patients with mild to moderate rhytides and skin laxity an appealing alternative to more invasive surgical interventions and adds to our growing list of nonablative

skin treatment tools. Further studies are warranted to enhance our understanding of this device and to optimize treatment parameters.

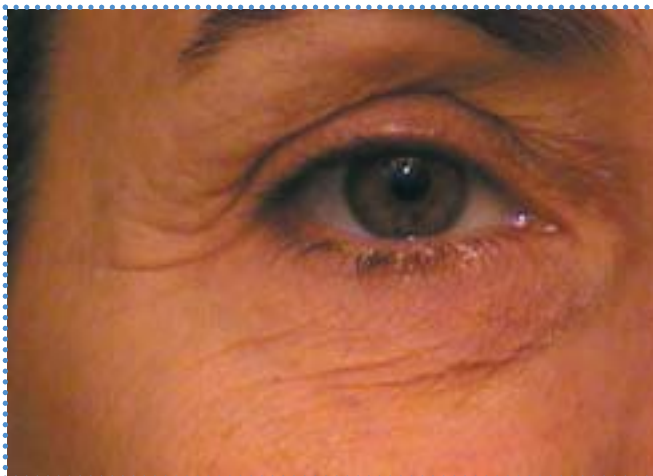
References available on request.



Before



3 months After 3 WR Treatments



Before



3 months After 3 WR Treatments



Before



3 months After 3 WR Treatments