


**Beauty is in the Eye of the Beholder, Non-invasive & Cosmetic Optometric Procedures**

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Optometrist



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- How most Drs deal with
- Decreasing
- Reimbursement



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**FINANCIAL DISCLOSURE**

Neither Dr. Elliott nor Dr. Castillo have any financial interests or professional relationships with the manufacturer(s) of any commercial product(s) discussed in this educational presentation including grant/research support, employment, consulting and/or speakers bureau arrangements, or major stock ownership.




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Thank You!

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**Trends**

- ODs looking for alternate sources of income
- competing with direct to consumer market
- Cosmetics
- Aesthetician
- Eyelash Extensions
- micropigmentation/permanent eyelid treatment
- eyebrow tinting
- facials
- overall skin care

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**RF Competitor Companies**

- Ultherapy :Uses RF to treat neck,chin,brow,chest (not Peri ocular surface)Temp too hot, can melt orbital fat
- Thermage/Solta:same as above
- Polaris/Reform: uses RF and Pulsed light, tissue arcing can cause scars
- Pelleve: uses lower temp and only unit currently safe for peri orbital areas

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### RF Companies

- Canadian company: EndyMed PURE 2.0
- Radio Frequency for eyes, face, neck, body

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### Endymed Pure Video

- you tube

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### Emerging study MGD

- Use Corneal shield
- Ellman used for bleph surgery
- Pelleve (RF) used for pre/post treatment
- Lyses and slices at same time
- video of Ellman uses
- Pelleve vs Lipoflow

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Introducing:  
**Office-based Radiofrequency (RF) Skin Rejuvenation!**



**Dermatochalasis**  
(Skin touching upper lid lashes)

**Normal lid crease restored**  
(Skin off lashes following RF treatment)


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**Key Points...**

- Nonsurgical rejuvenation of the periorbital skin produces a profound improvement in overall facial appearance.
- It can reduce, or reverse the morbidity induced by facial aging and its pathological correlates:
  - skin laxity (dermatochalasis)
  - lid malposition (senile entropion)
  - poor lid/globe apposition mechanics
  - corneal wetting
  - dry eye symptoms
  - contact lens intolerance
- visual field restrictions
- decreased visual acuity



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### Understanding the Aging Face

- Aging contributes to:
  - Collagen and elastin loss
  - Loss of skin elasticity
  - Thinning of dermis (volume loss)
  - Wrinkles
  - Skin redundancy and laxity (e.g., around the eyes)
- Sun damage
  - Texture changes
  - Veins
  - Redness
  - Age spots
- Fat Atrophy
  - Loss of volume
  - Most noticeable around eyes, cheeks, temples, lips and around mouth.




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**Key Points...**


- Facial aging is characterized by volume loss from multiple tissue planes
  - bone
  - subcutaneous fat
  - skin
  - dermis
  - epidermis
- This volume loss coupled with loss of skin elasticity, actinic damage and gravity results in the "aging face."



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**Key Points...**

- Periorbital aging changes result from multi-planar volume loss from the skin of the:
  - eyelids
  - periorbital
  - brow regions
- Identification, and treatment of age-related tissue volume loss is essential for the effective maintenance or restoration of the functional integrity of these tissues.



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**Key Points...**

- Since volume loss is a cardinal feature of aging, adoption of a **predominantly volumetric** rather than an ablative approach to the periorbital skin may yield the best results.
- Radiofrequency technology offers a noninvasive approach to tissue volume augmentation.



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**Key Points...**

- Skin rejuvenation using monopolar radiofrequency (RF) treatment is used by physicians and trained technicians to promote tissue tightening, dermal augmentation, wrinkle reduction, and tissue contouring.
- Rusciani A, Curinga G. Nonsurgical tightening of skin laxity: a new radiofrequency approach. *J Drugs Dermatol.* 2007 Apr;6(4):381-6.

**Abstract**  
**Background:** Improvement in skin laxity can be difficult to achieve without invasive surgical procedures. Monopolar radiofrequency (RF) treatment is used by physicians to heat skin and promote tissue tightening and contouring. RF technology produces an electric current that generates heat through resistance in the dermis and subcutaneous tissue. The thermal effect depends on the conductivity features of the treated tissue. When heated, collagen fibrils will denature and contract, which is believed to lead to the observed tissue tightening.  
**Methods:** Ninety-three consecutive patients with mild to moderate laxity were included in the study. The Surgitron Dual Frequency RF (RadioWave technology, Elman International) was used to treat skin laxity. The application of RF energy took place in an ambulatory setting with no need for skin sterilization or anesthesia.  
**Results:** Patients immediately noticed a mild retraction in the treated tissues according to the vectors mapped in the area. There were no significant complications and the majority of patients were satisfied with the procedure and able to return to their daily routine after leaving the office, thereby substantiating the suitability of noninvasive rejuvenating procedures.

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**Key Points...**

- Evidence in the literature supports the scientific mechanism of action as acute collagen modification and continued neocollagenesis resulting in increased dermal volume.
- Taub AF(1), Tucker RD, Palange A. Facial tightening with an advanced 4-MHz monopolar radiofrequency device. *J Drugs Dermatol.* 2012 Nov;11(11):1288-94.

**Abstract**  
**Background:** Over the past 10 years, radiofrequency (RF) technology has been utilized for noninvasive treatments for the treatment of laxity and skin laxity. This manuscript reviews the scientific background of collagen synthesis in vivo and its response to RF energy as well as a clinical study of 17 patients receiving a series of 3 face treatments with an advanced monopolar RF device. (Spring International, Inc, Orono, ME). Clinical methods, results, and a review of the literature for RF aesthetic treatments of the face are presented.  
**Methods:** Consecutive patients were treated in one site with 6 total treatments scheduled as follows: 1 session was performed every 15 days for 2 consecutive sessions, 1 session every month for 2 consecutive sessions, and 1 session every 2 months for 2 consecutive sessions. Both the treating physician and the patients on the evening and completion with baseline photographs. (Spring International, Inc, Orono, ME). Clinical methods, results, and a review of the literature for RF aesthetic treatments of the face are presented.  
**Results:** Ninety-three consecutive patients were treated in one site with 6 total treatments scheduled as follows: 1 session was performed every 15 days for 2 consecutive sessions, 1 session every month for 2 consecutive sessions, and 1 session every 2 months for 2 consecutive sessions. Both the treating physician and the patients on the evening and completion with baseline photographs. (Spring International, Inc, Orono, ME). Clinical methods, results, and a review of the literature for RF aesthetic treatments of the face are presented.  
**Conclusions:** The advanced 4-MHz monopolar RF device is effective, safe, and very well tolerated for treating facial laxity, wrinkles, and volume of the face without complication or discomfort. Evidence in the literature supports the scientific mechanism of action of acute collagen modification and continued neocollagenesis observed with the system. In this cohort, patients received approximately 50% improvement on average at 6 months and a 20% to 50% improvement 1 year after beginning the treatments, 6 months after completion.

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**Key Points...**

- The 4-MHz monopolar RF device is effective, **safe**, and **very well tolerated** for treating laxity and wrinkles of the periorbital skin without complication or discomfort.
- Taub AF, Tucker RD, Palange A. Facial tightening with an advanced 4-MHz monopolar radiofrequency device. *J Drugs Dermatol.* 2012 Nov;11(11):1288-94.
- Volumetric rejuvenation of the periorbital skin is an important element/adjunct in maintaining and restoring normal periorbital and eyelid function, appearance, and their physiological and functional correlates:
  - the function of the lids and lacrimal apparatus
  - the tear film and corneal integrity
  - the functional visual decline experienced with dysfunctional lid/lacrimal mechanics.



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### Skin Rejuvenation System

- Reduces skin laxity (e.g., dermatochalasis).
- Reduces facial wrinkles (e.g., periorbital rhytids).
- No down time – immediate return to normal activity**
- Minimal discomfort**
- No anesthetic or skin cooling required**
- \*Research clearly demonstrates the power of the Wrinkle Reduction System. With a single treatment, over 87% of our patients experienced an improvement in skin laxity and fewer overall facial wrinkles at six months. The Wrinkle Reduction System is an effective, non-invasive, economical and safe tool.\*

Dr. Antonio Rusciani  
Division of Dermatology, Plastic and Reconstructive Surgery, University of Rome, Italy




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### The System for the reduction of dermatochalasis and upper lid hooding

Aging changes in the skin are associated with:

- Loss of collagen
- Loss of elastin
- Thinning of dermis
- Thinning of epidermis
- Sagging of skin
- Wrinkles
- Ocular rhytids
- Age-related Dermatochalasis or skin laxity



Pretreatment 60 Days Post initial treatment

Radiofrequency rejuvenation:

- Induces new collagen deposition
- Induces new elastin deposition
- Adds volume to the dermis
- Tightens and firms the skin
- Reduces wrinkles

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### BEFORE and AFTER

Reduction of lower lid skin laxity following treatment

Aging changes in the skin are associated with:

- Loss of collagen
- Loss of elastin
- Thinning of dermis
- Thinning of epidermis
- Sagging of skin
- Wrinkles
- Ocular rhytids
- Age-related Dermatochalasis



Pretreatment 180 Days Post-treatment

Radiofrequency rejuvenation:

- Induces new collagen deposition
- Induces new elastin deposition
- Adds volume to the dermis
- Tightens and firms the skin
- Reduces wrinkles

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Notice **significant** improvement in the position of the superior lid margin



Pre-Treatment Post-Treatment

Widened palpebral fissure

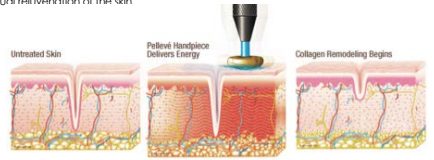
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### How does it work?

- The device precisely delivers energy into the dermis using patented radiofrequency technology, inducing collagen contraction without damaging the overlying epidermis. The result is noticeable improvement in skin quality and appearance.
- promotes the synthesis of new collagen and elastin, resulting in restoration of dermal thickness and a gradual rejuvenation of the skin



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### Wrinkle Reduction Animation Model with Radiofrequency

*pelleve*  
Elegance through science

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**Q & A**

- How long does the procedure take?
  - A full facial treatment can be performed in about 30 minutes. The periorbital region can be done in around 10 minutes.
- Are there any immediate after-effects?
  - Mild swelling and redness may occur, but studies have demonstrated that this usually goes away within 2 to 24 hours.
- How long does it take to see results?
  - Many patients see results immediately even after the first treatment. Continued improvement may be seen for up to 6 months while the skin produces new collagen. Continued treatments tend to improve results.
- How much does a treatment cost?
  - Depending on how many areas of the face are being treated, providers are charging between \$500 to \$2,500 per session.

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**How long does it last?**

A 200 study by Ruscioni A, Culinpa G, Menchini G, Alfano C, Ruscioni L. *Neurological Tightening of Skin laxity: A new radiofrequency approach.*

- 93 patients followed for 6 months after a single treatment
- Three independent, blinded assessors (2 facial plastic surgeons & 1 dermatologic surgeon) rated improvement over baseline for each time frame
- Response defined as average rating of three assessors indicating greater than 25% improvement in depth and number of wrinkles and improvement in tightness of the skin

A maintenance treatment is typically recommended once every 6 months.

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**Oklahoma Board of Examiners in Optometry**

Statute 581 dealing with scope practice definition:

Correcting ocular abnormalities .....excluding cosmetic lid surgery.

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**Drs. David Cockrell/Elliott/Laverty**


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**Oklahoma Board of Examiners in Optometry**


The Oklahoma Board of Examiners in Optometry has determined that **RF therapy** is not a cosmetic procedure if it is used in accordance with the intent of the law to relieve ocular abnormalities.

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 **Oklahoma**  
Board Of Examiners In Optometry


**RF** can be used in the ocular adnexa to relieve Dermatochalasis



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Women would like an alternative to this:



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And they don't want to look like this:



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**And they definitely don't want this:**



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**Acyclovir prophylaxis?**




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- The loss of collagen causes skin to droop and fall where the collagen used to keep it in place.
- **RF** will appeal to patients in their mid-30's!



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### Eyelid Rhytids

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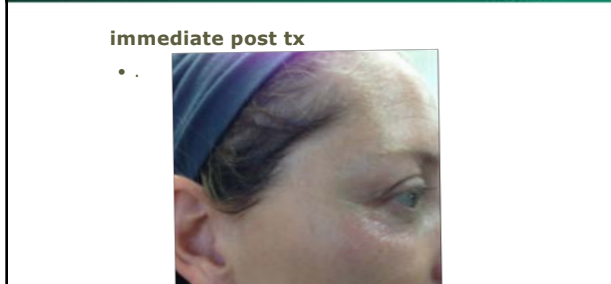


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### immediate post tx

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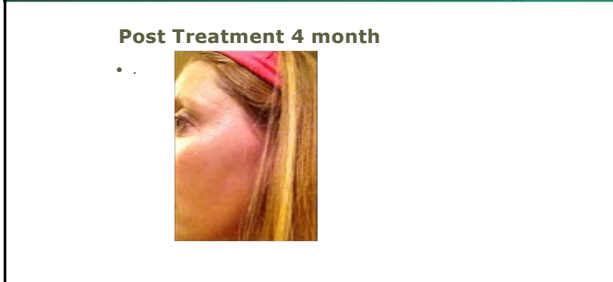


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### Post Treatment 4 month


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- Patients can go back to work immediately right after treatment with no downtime.
- Patients can use their normal facial regimen for:
  - cleaning
  - make-up
  - lotions (e.g., Retin-A)



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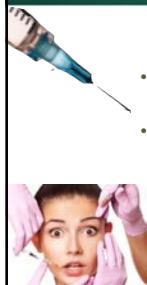
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- Safest anti-aging tool for women of colour:
  - African American
  - Native American
  - Hispanic




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- Is it better than Botox with needles or the CO2 laser?
- It is less invasive and less drastic than the CO2 laser leaving you with a more natural look immediately after treatment.




Post-CO2 Laser Surface Ablation

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**In Summary: Why radiofrequency skin rejuvenation?**

- Medical studies have proven that radiofrequency skin rejuvenation is a **safe and effective** way to treat skin laxity and minimize wrinkles without surgery.
- The side effects and discomfort are minimal to nonexistent.
- **No drugs or anesthesia** are used.
- **No down time.** Patients can return to work immediately following the procedure.
- **Allows you to treat the pathological and functional periocular correlates to aging and skin laxity AND achieve a simultaneous cosmetic benefit for your patient!**



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**Applied Clinical Methods**

- Practical usage in general optometric practice
- Utilization of paraoptometric/Aesthetician
- Supplying patient with ocular/skin/health benefits of Omega 3/antioxidants

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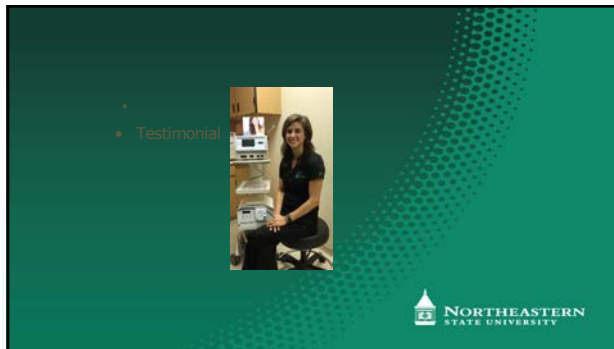
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**Skin Care**

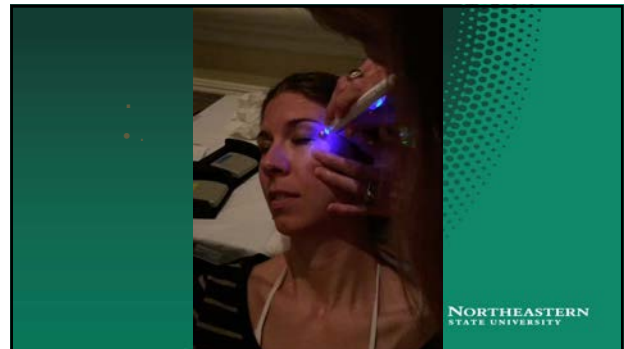


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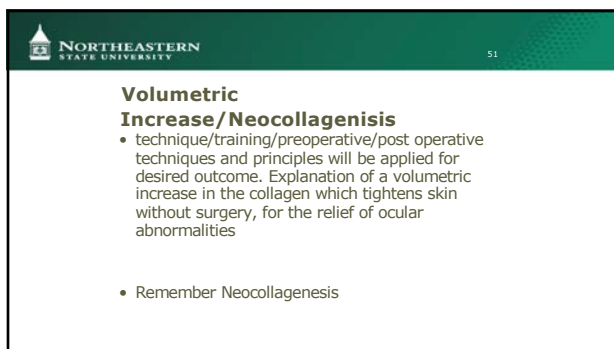




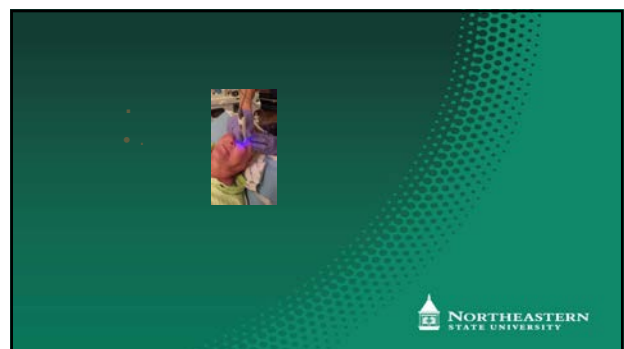
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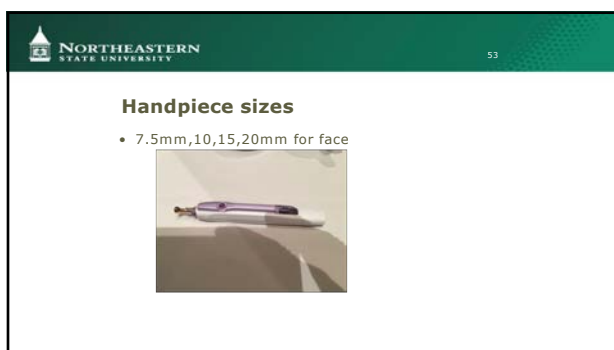
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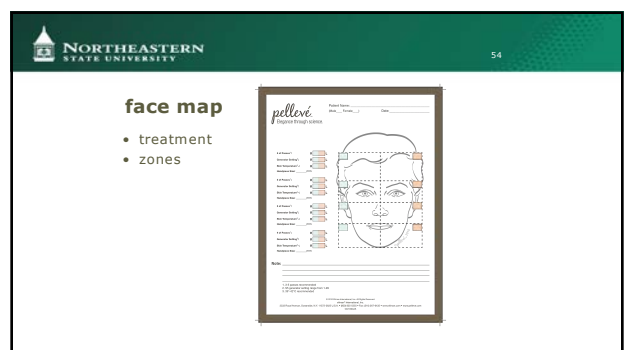
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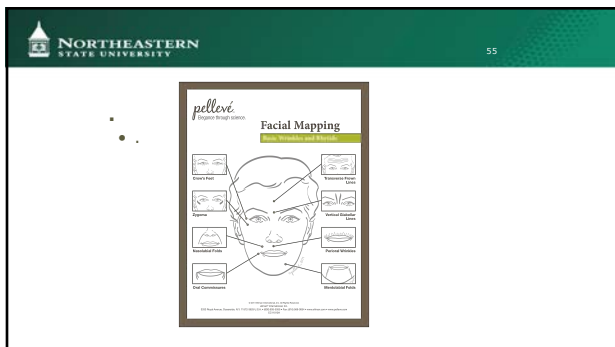
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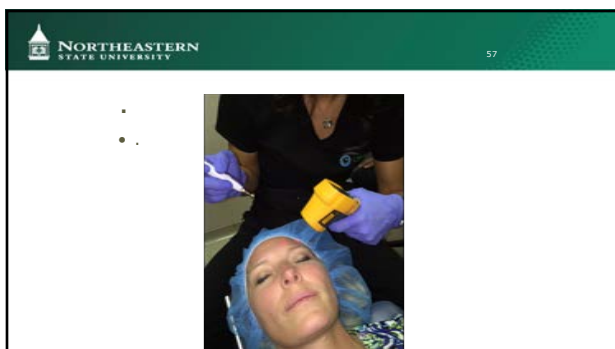


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**Grounding Pad**

- No Metal plates
- No Pacemakers
- No wet hair
- RF IS safe to use with braces

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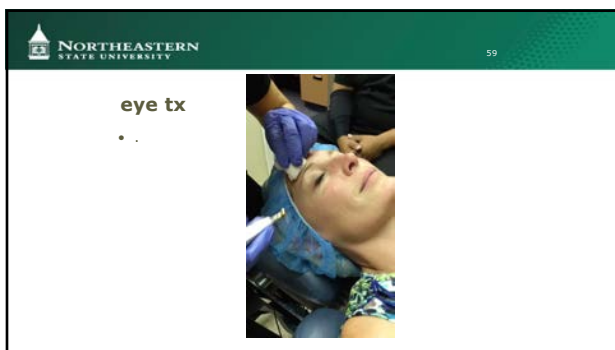


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**Thermometer**

- cost

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**History of RF**

Radiofrequency has been around for over 30 years, however, new emerging treatment has been found to work in conjunction with many medical entities, providing a nonsurgical approach to noninvasive skin rejuvenation directly affecting ocular abnormalities. A review of current technology, a review of ocular and facial anatomy, and safety techniques will be demonstrated.

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## H2O

Tissue interaction

1. Hydration dependent
2. The amount of water in the molecular tissue has a direct effect on the interaction with the radio frequency energy.

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## corneal shield

Corneal shields

1. Insertion/removal technique
2. In the treatment of ocular abnormalities around the orbital rim, corneal shields provide protection from mechanical injury, as well as radio frequency energy.

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- .Power generator settings /grounding pad
  1. Highly dependent upon outsource of energy/wattage 2. Also depended on the hydration of the molecular cells.
- 3. Power Settings can vary with individual patient treatments, and within individual specified areas that are treated
- 4. There are guidelines and ranges of power per areas treated, however these settings are highly individualized and can change between treatment times.

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## temp

- 1. Ideal temp for maximum effect
- 2. Maximum effectiveness and then stimulation of collagen occur at the ideal temperature.
- Number of Passes
  1. 5 passes at 38-40 Celcius
  2. Pretreating the tissue, while moving the hand piece quickly while adjusting the power setting, will result in maximum temperature effect, with maximum collagen benefits.

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## Treatment

- Hand piece size in mm
  1. 10, 15, 20 mm sizes
- 2. Variation and sizes of the hand pieces are used to create different tissue effects
- G. Pre treatment of skin
  1. Hydrating gel
  2. Make up removal
  3. Normal skin care routine can be used before and after the treatment

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## outcomes

- Skin Hydration
  1. Variable effect depending on patient hydration level
  2. Different settings , individuality of patient visits

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### Follow up care

- Post-Operative procedural instructions:
  - A. Facial cleansing
  - B. Sun exposure
  - C. Postoperative nutraceuticals and Omega 3 supplements
  - D. Make up
  - E. 48 hour effect
  - F. 28 day affect
  - G. Treatment schedule

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### Temp


- A. Desired effect is reached when temperature reaches 38 to 40°C, and five passes are made at that temperature
- B. Manipulation of gel to decrease discomfort during treatment
- C. Clinical pearls on the size of the hand piece.

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### Equipment

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### Equipment

- Make up Brush preferred




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### S5 Unit

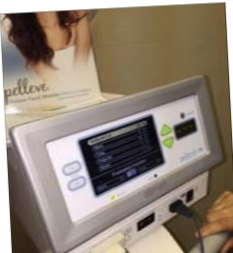
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### RF Procedure

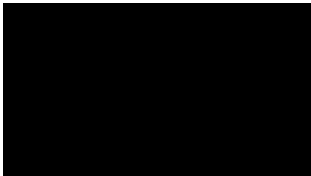
- the doctors
- [www.thedoctorstv.com/videos/pelleve](http://www.thedoctorstv.com/videos/pelleve)

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### Ellman unit Radiofrequency

- Nevus Removal Dr. Castillo




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### Aesthetics

- Dr. Lynsey
- Instantly ageless
- Eyelash boost




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### Zoria Boost

- Lash Boost



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### Lash Boost

BEFORE AND AFTERS

100% YOURS.

RODAN + FIELD

100% REAL




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### Lash Extensions

- OD has the extension




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### Aesthetics

- Micropigment
- niche service
- aesthetician
- tinting
- extensions

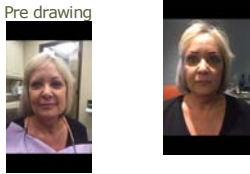


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### Immediately

- Pre drawing

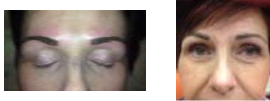


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### 3 weeks out

- Immediately




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### .Results

- 2 min



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### you tube video

- Instantly Ageless

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**THANK YOU!**

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