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Lasers, Lights, Aesthetics

Are you curious about how to blur the lines between aesthetics and eye care? Do you wonder what technologies are available to help expand what you can offer your patients? Or maybe you've invested in the technology but have scratched your head and said now what? There is a better way. This course will show what technology is available in a problem focused layout-from dry to rosacea and everything in between. What affects you can expect and how to set both you and your patients up for success.

Course Objectives:

- Discuss procedures that you can utilize in your office to enhance your patients.
- Learn what modalities work to effectively perform aesthetic treatments in your optometric office.
- Effectively learn how to incorporate aesthetic treatments into your optometric flow.
- Review the anatomy of the skin & periorbital tissues, and the effects the aging process produces on them
- Explore current clinical recommendations for patients to prevent/minimize that damage
- Investigate the science behind ophthalmic products & procedures which have both therapeutic & aesthetic benefits

Case: A 48-year-old female presents with chronic redness, irritation, and cosmetic concerns about "looking tired." She has a history of rosacea and has tried multiple lubricants without relief. (We will finish the case at the end)

Discussion: Sets the stage for blending ocular health with aesthetics — why optometry/ophthalmology is uniquely positioned.

1. Intense Pulsed Light (IPL)

Case: 52-year-old male with ocular and facial rosacea, recurrent chalazia, and meibomian gland dysfunction despite standard dry eye therapies.

Procedure Details:

Indications: Ocular and facial rosacea, MGD, telangiectasia, redness, and adjunct for dry eye.
Mechanism: Photothermolysis of abnormal vessels, reduction of inflammation, improved meibum flow.

Treatment planning:
Number of sessions (typically 4–6, spaced 3–4 weeks apart).
Parameters: skin typing, filter selection, energy levels.
Risks & Benefits: Discomfort, erythema, pigment changes; benefits I include reduced inflammation, improved gland function, cosmetic improvement.
Integration: Combine with lid debridement, meibomian gland expression, or RF.
Patient education: Before/after photos, realistic expectations, contraindications

Case: Intense Pulsed Light (IPL)

Patient: 48-year-old female with ocular/facial rosacea, MGD.

History (HPI):

- Complains of redness, irritation, and frustration with not being able to wear make-up.
- Tried warm compresses, artificial tears, omega-3s, and topical azithromycin with only mild improvement.
- Embarrassed by appearance — coworkers ask if she's "ok."

Exam Findings:

- Fitzpatrick skin type II.
- Telangiectatic vessels at lid margin.
- Inspissated meibomian glands.
- Facial flushing with papulopustular rosacea.

Differential:

- Ocular rosacea vs Demodex blepharitis vs allergic conjunctivitis.

Decision-Making:

- Demodex addressed with lotilaner 0.25%.
- Allergic signs absent.
- Rosacea confirmed — candidate for IPL.

Treatment Plan:

- 4 sessions of IPL, spaced 3 weeks apart.
- Lid expression post-treatment.
- Adjunct: topicals
- Strict sun protection emphasized.

Follow-Up / Teaching Pearls:

- Expect gradual improvement over 2–3 sessions.
- Before/after photography is essential for buy-in.
- Discuss risks: erythema, blistering, pigment change.
- Pro tip: Always use Fitzpatrick skin typing to avoid complications

2. Radiofrequency (RF)

Case 2: 44-year-old female frustrated with fine periorbital rhytids and heavy lids that interfere with makeup application; also symptomatic for dry eye.

Procedure Details:

Indications: Skin tightening, eyelid margin heating, periorbital rhytids, mild dermatochalasis.
Mechanism: Controlled heat stimulates collagen remodeling, elastin tightening, improves gland function.
Modalities:
Standard RF for tightening & dry eye.
RF with microneedling for texture, scars, deeper rejuvenation.
Treatment Protocol:

Session frequency (series of 3–5).
Combination therapy (RF + IPL for synergy).
Risks/Benefits: Minimal downtime, transient erythema/edema, low risk of scarring.
Patient selection: Fitzpatrick I–IV best; avoid active infection or implanted devices.
Communication: Discuss gradual results, realistic tightening, adjunct with skin care.

Case: Radiofrequency (RF)

Patient: 39-year-old female with fine rhytids, dermatochalasis, and mild dry eye.

History (HPI):

- Struggles applying makeup due to “crepey lids.”
- Has symptoms of burning and intermittent blur, worse at end of day.

Exam Findings:

- Fitzpatrick skin type III.
- Mild upper lid dermatochalasis, MRD ~2.5mm.
- Tear film instability, mild gland dropout.

- Fine periorbital lines.

Differential:

- Functional ptosis vs dermatochalasis vs ocular surface disease.

Decision-Making:

- Too mild for surgical intervention.
- Candidate for RF skin tightening + adjunctive MGD therapy.

Treatment Plan:

- 3 RF sessions with periocular focus.
- Combine with meibomian gland expression.
- Add microneedling for collagen remodeling in under-eye area.
- Daily SPF + medical-grade moisturizer.

Follow-Up / Teaching Pearls:

- Improvement is subtle but accumulative.
- Patients must understand collagen remodeling takes months.
- Combining with IPL accelerates outcomes in rosacea patients.
- Educate: “We’re building the scaffolding under your skin.”

3. Neurotoxin (Botulinum Toxin)

Case: Neurotoxin (Botulinum Toxin)

Patient: 38-year-old professional with frown lines (“11s”) and crow’s feet.

History (HPI):

- Reports appearing “angry” on Zoom calls.
- Also complains of brow strain headaches.

Exam Findings:

- Dynamic glabellar rhytids on frown.
- Lateral canthus crow’s feet with smiling.
- Strong corrugator activity.

Differential:

- Dynamic rhytids (neurotoxin-responsive) vs static rhytids (resurfacing/fillers).

Decision-Making:

- Candidate for neurotoxin in glabella and crow's feet.
- Headaches suggest functional benefit as well.

Treatment Plan:

- Glabella: 20 units (5-point injection).
- Crow's feet: 12 units total.
- Counseling: onset in 5–7 days, peak at 2 weeks, duration ~3–4 months.

Follow-Up / Teaching Pearls:

- Always assess symmetry pre-treatment.
- Show patients dynamic vs static wrinkles in a mirror.
- Under-treat first session, titrate on follow-up.
- Quote for patients: *"We're softening movement, not freezing expression."*

1. Anatomy
    a. Elevators
    b. Frontalis
    c. Depressors
        i. Procerus
        ii. Corrugators
        iii. Orbicularis Oculi
    d. Review mechanism of action and how to paralyze each muscle group to achieve desired result
        i. Reconstitution
        ii. Tips for injection
    e. Paralyzes the muscles
        i. How long
        ii. Ideal units
    f. Beauty is symmetry
        i. Desired result examples
        ii. Before and After examples
    g. Enhancing Beauty
        i. Correct terminology
        ii. What to say to patients
        iii. How to discuss the possibilities with patients
    h. Treatment of dynamic vs static wrinkles
        i. Examples of the different types
    i. On label uses
        i. Frontalis
        ii. Glabella

iii. Lateral Canthus Rhytids

j. Off label uses
    i. Superficial micro dilution for skin tightening

Case: Laser Resurfacing

Patient: 62-year-old with sun damage, dermatochalasis, and static wrinkles.

History (HPI):

- Retired teacher, wants to look "less tired" but not ready for surgery.
- Concerned about downtime due to social commitments.

Exam Findings:

- Fitzpatrick skin type II.
- Photoaging with actinic keratoses.
- Periorbital static rhytids.
- Mild lower lid laxity, not surgical candidate yet.

Differential:

- Static wrinkles vs dynamic rhytids vs premalignant lesions.

Decision-Making:

- Best fit: non-ablative fractional resurfacing (1540 diode).
- Ablative CO_2 offered but declined due to downtime.

Treatment Plan:

- Non-ablative series of 3.
- Antiviral prophylaxis (HSV history).
- Strict SPF and moisturizer.
- Possible combination with neurotoxin for dynamic areas.

Follow-Up / Teaching Pearls:

- Healing time: 2–3 days erythema with non-ablative, weeks for ablative.
- Sun protection is non-negotiable.
- Pro tip: static wrinkles = laser/fillers; dynamic = neurotoxin.

Case: Blended Therapies & Co-Management

Patient: 55-year-old with ocular rosacea, brow ptosis, periorbital laxity.

History (HPI):

- Wants non-surgical rejuvenation but open to oculoplastic referral if necessary.

Exam Findings:

- Mixed pathology: redness, gland dropout, mild brow ptosis.
- Fitzpatrick skin type III.

Decision-Making:

- Needs layered approach for both functional and aesthetic results.

Treatment Plan:

- IPL for rosacea + MGD.
- RF for tightening.
- Neurotoxin for glabellar lines.
- Consider referral for browpexy if insufficient lift.
- Daily skincare: cleanse, exfoliate, hydrate, prevent.

Follow-Up / Teaching Pearls:

- Layer therapies to maximize results.
- Sequence matters: treat inflammation first (IPL), then build structure (RF), then refine (neurotoxin/laser).
- Marketing tip: Use photography to showcase multi-modality transformation.

Case: Closing – Revisiting the Introductory Patient

- **Before:** Frustrated with redness, cosmetic fatigue, poor quality of life.
- **After:** Multimodal therapy (IPL + RF + skincare), improved ocular comfort, confidence, and aesthetic satisfaction.

Key Takeaway:
"Every patient brings both function and form. When we treat both, we don't just improve vision — we elevate lives."

Skin Care is essential

k. Cleanse
l. Exfoliate
m. Hydrate
n. Prevent
o. SUNGLASSES!!

2. Skin Assessment
    a. Anatomy and Assessment

    b. Intrinsic/Extrinsic Factors
    c. Prevention
    d. Skin Typing

3. How to Start and Grow-Choose 1 and then Expand

4. The Patient Consultation
    a. How to assess patient
    b. How to assess skin
    c. The importance of photography
5. Marketing
    a. Internal
    b. External
    c. Digital
    d. Professional