

## **Cosmetics, Aesthetics, and the Ocular Surface: Today's Dry Eye Disease is a Lifestyle Disease!**

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### **Course Description:**

This course will provide an overview of the various cosmetic and esthetic beauty trends seen today, from make-up ingredients to application to elective medical and non-medical procedures, societal and cultural challenges, and the impact these have on dry eye disease. Key tips will be provided to the primary care optometrists to help identify these multifactorial aesthetic risk factors and how to wholistically manage these dry eye patients.

### **Course Objectives:**

1. Beauty Offenses commonly seen in clinical practice & their role in lid margin disease
2. Understand risk factors - Boudin Vicious circles
3. Dry Eye Blepharitis Syndrome – Dry Eye as an Inflammatory disease
4. Toxic Make-up Ingredients – Buyer Beware
5. The Role of Preservative Systems in Make-up and understanding newer preservative systems
6. Lash Extensions and Lash Serums
7. Aesthetic Eyelid Procedures and their role in ocular surface disease
8. Review best clinical practices in managing dry eye as a lifestyle disease– your role as the primary care optometrist
9. Case Study Presentation

## Course Outline:

### 1) Beauty Offenses Commonly Seen in Clinical Practice

- Tightlining the waterline – using anterior segment photography to highlight how incorrect application of eye -makeup can lead to damage to our delicate meibomian glands

- Waterproof mascara

  - review of ingredients used in waterproof make-up and how these lead to eyelid margin inflammation over time

- Eye shadow palettes

- review of pigments and glitter used in eye make-up and their role in dry eye disease

### 2) Baudouin's Vicious Circles – highlighting cosmetic/aesthetic risk factors and how they contribute to MGD, tear film hyperosmolarity and ocular surface inflammation

### 3) Dry eye Blepharitis Syndrome – emphasizing the importance of a good slit lamp assessment of the lid margin to identify blepharitis (both demodex and seborrhea), telangiectasia, madarosis and tylosis as seen in patients that have poor eyelid hygiene and make-up habits

### 4) Dry Eye as an Inflammatory Disease – overview of the immune dysregulation (healthy system mounts immune response to pathogen/chemical/allergen, amplification of immune response by T-cell differentiation, recruitment and reactivation of T-cells and loss of homeostasis or self-perpetuation

### 5) Understanding Make-Up Ingredients

- Providing key ingredient lists to practitioners to help identify cleaner make-up brands
- Listing classes of ingredients that have shown to be pro-inflammatory to the lid margin

### 6) The Role of Preservatives in Make-up

- Importance of anti-microbial agents to keep products sterile
- Newer/Greener preservative systems – do they really work
- Is Phenoxyethanol truly toxic-
- Teaching the primary care optometrist how to better understand the role of preservatives in cosmetic products so that they are better equipped to advise their

patients on cleaner choices

#### 7) Lash Extensions/Lifts and Lash Serums

- Understanding the significance of lash length and lid width ratio
- Evaporative effect of longer more lifted lash extensions
- Importance of eyelash extension hygiene – gel cleansers and the spoolie brush
- Inflammatory effect of adhesives and glues used to apply lash extensions
- Lash serums: Prostaglandins like Bimatoprost in Latisse and synthetic prostaglandins like isopropyl cloprostenate and the inflammatory cascade
- Safer alternatives to lash extensions and lash serums

#### 8) Aesthetic Eyelid Procedures and their role in Dry Eye Disease

- Blepharoplasty as a cause of nocturnal lag ophthalmos
- Double Eyelid surgery and Superior Limbic Keratoconjunctivitis – the mechanical theory
- Tattoo Eyeliner as a cause for decreased tear film break up time and meibomian gland loss
- Eyelash tinting and its potential to cause allergic/inflammatory side effects

#### 9) The Role of the Primary Care Optometrist in Managing Dry Eye Disease related to cosmetic and ocular aesthetic trends

- Address societal and cultural beauty/ aesthetic trends and best practices to mitigate adverse effects
- Providing foundational education to patients
- Discussing ingredient lists and providing options for cleaner make-up brands
- Emphasizing the importance of daily eyelid hygiene – dental model of eyecare
- In office treatments for dry eye disease and their aesthetic benefits: IPL and Radiofrequency
- Finding practical solutions for nocturnal lag ophthalmos
- Discussing diet and nutritional supplements and their effect on dry eye disease

