

Contact Lens Material Update

Course Description: Changes are occurring on a regular basis with contact lens materials. What GP, scleral, hybrid, and custom soft materials are in common use today and their specific applications are discussed.

Course Outline

- I. Current and Future Contact Lens Use
 - a. What are the prescribing habits of ECPs as it pertains to each lens material including GPs, sclerals, hybrids, and soft lenses
 - b. What do ECPs indicate as the greatest advancements in lens materials in the past year?
 - c. What are the predictions for new lens materials in the next few years?

- II. Corneal GP Lenses
 - a. GP lens design selection and use in 2022
 - b. Most important recent advances in GP lens materials
 - c. Types of lens materials
 - i. Silicone/Acrylate
 - ii. Fluoro-Silicone/Acrylate
 - d. Lens materials divided into low (25 – 50), high (51-99) and high (>100) oxygen permeability (Dk)
 - e. Lens material selection based upon DK value
 - f. Coatings and treatments
 - i. Plasma treatment
 - ii. Polyethylene glycol (PEG)
 1. Composition
 2. Use for regenerating the surface coating

- III. Scleral Lenses
 - a. Types of scleral lenses
 - b. Scleral lens material selection
 - c. Recent scleral lens design advancements
 - d. Scleral lens applications:
 - i. Irregular cornea
 - ii. Ocular surface disease
 - iii. Healthy eyes
 1. Presbyopia
 2. Astigmatism
 - 3.

- IV. Hybrid Lenses

- a. Material composition:
 - i. Central GP
 - ii. Peripheral soft lens
 - iii. Hyperbond junction
 - b. Lens designs and applications
 - i. Irregular cornea
 - ii. Presbyopia
- V. Custom Soft
- a. What are custom soft lenses (versus mass-produced soft contact lenses)
 - b. Availability and fitting considerations
 - c. Applications:
 - i. High astigmatism
 - ii. Presbyopia
 - iii. Keratoconus
- VI. The Decision-Making Process
- a. Factors to consider when making the decision as to what lens material to use
 - b. Summary decision-making tree
- VII. SUMMARY