

Scleral Lens Advanced Fitting  
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## Course Description

Scleral lenses have become a widespread option for the treatment of distorted corneas and ocular surface disease. However, optimal scleral lens fitting and management can be challenging. Scleral lens selection and follow-up care is reviewed by identifying key areas of concern. Common scleral lens problems and troubleshooting techniques are reviewed. Modification of the scleral lens fit including front toric, peripheral toric, peripheral elevation and new surface technologies of scleral lenses along with problem-solving are discussed at length. Specific care and handling of lenses is described. The importance of establishing a close relationship with the lens manufacturing laboratory and consultants and in-office management tips for scleral lens practitioners are discussed.

## Learning objectives

1. Be able to identify and manage scleral lens fogging.
2. Identify a good candidate for a front surface toric lens.
3. Identify a good candidate for a peripheral toric lens system.
4. Review collaborative care with other specialists.
5. Learn when to include new scleral lens surface technologies.

## Outline

- I. Fitting and troubleshooting scleral lenses
  1. Potential complications
    - a. Mid-peripheral bearing
    - b. Conjunctival compression
    - c. Conjunctival misalignment
    - d. Peripheral compression
    - e. Pinguecula/Blebs/Cysts
      - a. How to notch
      - b. Peripheral elevations
      - c. Impression based technologies
    - f. Tight Lens syndrome
    - g. Hypoxia
    - h. Debris in the reservoir
      - a. Types of debris
    - i. Solution-induced keratopathy
    - j. Lens decentration
    - k. Residual astigmatism
    - l. Benign issues?
      - i. Epithelial bogging
      - ii. Conjunctival prolapse

- m. Poor-lens wettability
      - a. Plasma
      - b. Tangible Hydra-PEG
      - c. Tangible Boost
      - d. Evaluate meibomian gland dysfunction
      - e. Evaluate blepharitis
      - f. Evaluate Demodex
      - g. Evaluate ocular surface disease
    - n. Surface deposits and scratches
    - o. Bubbles
    - p. Handling
  - 2. Problem Solving
    - a. Changing the fit/design
    - b. Changing the solutions/care regimen
    - c. Changing material
  - 3. Recommendations and Follow-ups
    - a. Normal follow-up schedule
    - b. Evaluation of special design features – toric peripheral curves
    - c. Reverse curves
    - d. Multifocal scleral lenses
    - e. Front surface toric lenses
- II. In office tips
  - a. Identifying good patients and making recommendations
    - i. Many within a regular private practice
  - b. Marketing/promoting
    - i. Internal vs. external
  - c. Co-management
    - i. Optometrists
    - ii. Ophthalmologists
    - iii. Medical specialists – rheumatologists, oncologists
  - d. Loyal patients
- III. Scleral lenses for Special populations: pediatrics/post-graft/post-refractive surgery
  - 1. Presbyopia – Multifocal Designs
    - a. Smaller diameter lenses
    - b. Larger diameter lenses
    - c. Refractive issues
    - d. Dryness issues
    - e. Designs
  - 2. Post-Graft / Post Refractive Surgery
    - a. Corneal physiology (endo cell count)
    - b. Evaluate for pre-existing corneal edema
    - c. Corneal profile

- i. Handling excessive clearance
- d. Lens designs
  - i. Oblate designs
  - ii. Reverse Curves

IV. Summary/Questions/Discussion

1. With a little training – scleral lenses are easy to fit
2. Scleral Lenses are comfortable for patients to wear
3. Various designs necessary
  - No single design can be used for all patients or conditions
4. Discussion Starters
5. Case Presentations