

## **Not Ben Franklin's Bifocals**

### **Speakers:**

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Panel:

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### **Course Description:**

This course will examine the issue of how today's presbyopic patient is managed with contact lenses. This course is intended to boost your confidence with fitting contact lenses by improving your understanding of the various lens designs and their inherent limitations. It will describe the designs of contemporary contact lenses and the fitting philosophies behind each of them. Also to be discussed will be ways to identify various vision complaints associated with contact lenses and how to take a more scientific approach to resolving them.

### **Course Objectives:**

At the conclusion of this presentation the participant will be able to:

- Identify patients that are ideal candidates for multifocal contact lenses.
- Choose the appropriate contact lens design based on the patient's corneal topography and refractive error.
- Describe how lens designs can be used to manage corneas with astigmatism.
- Describe the methods used for improving the performance of a less than desirable multifocal contact lens fit.
- Explain the importance of lens stability with multifocal contact lenses and the possible ways to resolve problems.
- Incorporate research in the area of presbyopia and apply to practice.

## Outline

### Evaluate Visual Demands of the Presbyope

- a. Lack of accommodation
- b. Increase demand due to reading, computer, cell phones

### A. Traditional Visual Improvement aids for the Presbyope

#### a. Traditional bifocals

- i. Benefits
- ii. Drawbacks

#### b. Progressives

- i. Benefits
- ii. Drawbacks

#### c. Near reading glasses over contact lenses

- i. Benefits
- ii. Drawbacks

#### d. Monovision

### B. The Great Debate: Monovision vs. Multifocal Contact Lenses

#### i. Benefits

#### ii. Drawbacks

Research and clinical patients perception

Goals of each

### C. The Presbyopic Contact Lens Exam

#### a. Important history questions

- i. Occupation and hobbies
- ii. Lighting conditions
- iii. Expectations

#### b. Important clinical findings

- i. RX
- ii. Pupil Size
- iii. Slit Lamp Exam
- iv. Topography/Keratometry readings

### D. Finding the ideal patient for the ideal lens

- a. Reviewing the toolbox of lens designs
  - b. Examining the patients needs
  - c. Explaining the expectations
- **Soft Contact Lens Multifocal Options**
  - Simultaneous vision
- Distance, intermediate and near images of equal intensity are presented to the retina
  - Requires adaptation
  - Optical factors
  - Aspheric design
  - Toric Multifocal options
  
  - Fitting Techniques
  - Post-fitting Consideration
  - Physiological factors
  
  - Visual acuity problems
  - Refractive error
  - Over-refraction
  - Hand held lenses
  - Normal room lighting
  - Lens dehydration
  - Reflected light from lens surface
  - Keratometer
  - Videokeratography
  - Pupil size
  - Lens position
  - Centration on cornea
  - Centration over visual axis
  - Angle kappa
  - Corneal topography
  - Position of the optics in relation to the visual axis
  
  - Comfort Problems
  - Contact lens – cornea relationship
  - Surface deposits
  - Solution reactions
  - Contact lens dehydration

○ **GP Contact Lens Multifocal Options**

- Simultaneous vision
  - Translating/alternating
- Adaptation
- Optical factors
  
- Fitting Techniques
- Post-fitting Consideration
- Physiological factors
  
- Visual acuity
- Refractive error
- Over-refraction
- Hand held lenses
- Normal room lighting
- Pupil size
- Lens position

○ **Scleral Contact Lens Multifocal Options**

- Simultaneous vision
- Adaptation
- Optical factors
  
- Fitting Techniques
- Post-fitting Consideration
- Physiological factors
  
- Visual acuity
- Refractive error
- Over-refraction
- Hand held lenses
- Normal room lighting
- Pupil size
- Lens position
  - Offset Optics

○ **Hybrid Contact Lens Multifocal Options**

- Simultaneous vision
- Adaptation

- Optical factors
- Fitting Techniques
- Post-fitting Consideration
- Physiological factors
- Visual acuity
- Refractive error
- Over-refraction
- Hand held lenses
- Normal room lighting
- Pupil size
- Lens position
- **Orthokeratology Contact Lens Multifocal Options**
- Viable option
- Decision making
- Fitting Techniques
- Post-fitting Consideration
- Physiological factors
- Visual acuity
  - Refractive error
- Pupil size
- Lens position
- **Research to Practice**
- BCLA Task Force - Presbyopia
  - Traditional thoughts on presbyopia
  - Recent research in presbyopia
  - Implementing research into practice
  - Evidence based decision making in presbyopia
- **Trends in Surgical Intervention for Presbyopia**
- Current practices
- Surgical types
- Current research
- Future developments