N.C.L.E COURSES

Stephen P. Byrnes, OD, FAAO

Stephen P. Byrnes, OD, FAAO maintains a primary eye care private practice with specialization in contact lenses in Londonderry, NH. A pioneer in current scleral lens design, he routinely participates in clinical studies of RGP contact lens materials, RGP and soft contact lens designs, RGP and soft contact lens solutions, and artificial tears. Dr. Byrnes is an academic education consultant to the schools and colleges of Optometry for Bausch & Lomb and Polymer Technology. He is a consultant for Menicon North America, Viscon Contact Lens and Blanchard Contact Lens. He lectures internationally on RGP Contact Lens Design, Fitting, and Problem-solving. A native of Waterbury, the COA is honored to have Dr. Byrnes speak to our group and welcomes him back to Connecticut.

Dr. Byrnes is generously sponsored by an educational grant from Ortho K - Visual Optimization with Contact Lenses 8:00 - 9:00
1 Credit
The procedure of orthokeratology is defined to include patient selection, lens designs and fitting options, desired patient response, and limitations of the procedure. Theories of how the treatment works are discussed. Patient management for initial treatment and for long term treatment is discussed. Attendees should become knowledgeable with short and long term complications associated with this treatment. Potential serious sight threatening complications and the need for rapid referral will be discussed.

Overview of Keratoconus and the Role of Contact Lenses 9:00 - 10:00
1 Credit
Keratoconus is a condition in which the cornea assumes a conical shape as a result of noninflammatory thinning of the corneal stroma. The demographics of and classification of keratoconus is reviewed. The symptoms and signs of keratoconus are defined and described. Cases are presented and similar conditions, pellucid marginal degeneration and keratoglobus are differentiated. Students taking this course will develop a fuller understanding of this condition and will better understand the patients’ symptoms. The appropriate use of vision correction combinations that may include corneal cross-linking, INTACS, contact lenses and spectacles will be better understood by those who complete this course.

Advanced GP Bifocal, Trifocal, Multifocal Fitting and Problem Solving 10:10 - 12:10
2 Credits
This course reviews GP contact lens designs for the correction of presbyopia. Included are bifocal, trifocal and multifocal designs. Simultaneous vision fits, translating lens fits and simultaneous vision fits enhanced by translation are described. Video examples are presented. Fine tuning the fit and problem solving is presented. Patient selection and setting patient expectations are reviewed.
Anterior Segment Pathology Managed with GP Lenses

This course reviews common problems that are associated with rigid gas permeable contact lens wear and describes how to manage them. Problems covered include 3 & 9 corneal staining and vascularized limbal keratitis. The cause and remediation of these conditions are described with case presentations. Contact lens adhesion is discussed. Refitting to a scleral lens design is described in a case presentation. Limbal stem cell deficiency due to mechanical trauma or chemical toxicity is discussed and a case of advancing waveform epitheliopathy is presented. Giant papillary conjunctivitis associated with soft and rigid contact lens wear is discussed. Dimple veiling and epithelial wrinkling associated with GP contact lens wear is discussed. Ptosis from rigid contact lens wear is reviewed. At the end of the course the students will be able to identify common problems related to GP contact lens wear and understand options for remediation.

Mini Scleral Lens Design

Mini scleral and scleral GP lenses are designed for applications ranging from traumatic injury, Ocular Surface Disease, highly irregular ectasias to include keratoconus, Pellucid Marginal Degeneration, Keratoplasty, and post refractive surgical applications. This course presents strategies for fitting rigid lenses that fit beyond the limbus, to include corneo-scleral, mini-scleral and scleral lens designs. More recently patients with healthy normal prolate corneas and GP intolerant astigmatic patients wearing soft toric lenses are experiencing the benefits of improved comfort and vision performance afforded with mini scleral lenses. Perspective is gained with historic video excerpts of pmma cast molded and trial fit scleral lens demonstrations. Current lens materials, and fitting strategies for mini-scleral lenses are reviewed.