

Vision Expos West 2025 and East 2026
Las Vegas, Nevada & Orlando Florida

Troubleshooting Scleral Lenses

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1 hour
OD Education
Category: CL Lenses

Summary:

As we all continue to learn how to fit scleral lenses, we are bound to run into more and more complications. How to manage these complications is the key. This course will review the top 20 most common and more advanced complications that arise with fitting contact lenses from patient discomfort, fitting issues, corneal complications and compliance in a simple way that makes fitting a breeze.

Learning Objectives:

1. To be able to understand the design of a scleral lens and how to manipulate the design.
2. To learn how to evaluate a scleral lens fit for fitting problems and its potential impact on the ocular physiology.

3. To learn how to manage challenges with the fit from the center to the edge.
4. To be able to trouble shoot patient discomfort, debris and more advanced complications.
5. To be able to trouble shoot patient concerns, insertion, removal and patient non-compliance.

Outline:

- 1) Scleral Lens Introduction
 - a) Purpose
 - b) Design
 - c) Patient education

- 2) Outside In Fitting philosophy
 - a) Edge
 - b) Limbus
 - c) Central Clearance

- 3) Insertion and Removal
 - a) Number 1 patient concern
 - b) Tips to help

- 4) Pain upon insertion
 - a) Solution
 - b) Insertion Technique

- 5) Bubbles entering the lens
 - a) How to fix?

- 6) Edge Awareness
 - a) Where and how to fix

- 7) Pain at the end of the day
 - a) Suction
 - b) Fit
 - c) Removal Technique

- 8) Headaches
 - a) Pressure
 - b) Refraction

- 9) Compression vs Impingement
 - a) What's the difference?
 - b) Heel/Toe Compression
 - c) How do you fix it

- 10) Conjunctival Prolapse
 - a) Safe?
 - b) How to resolve?

- 11) Neovascularization
 - a) Insertion Removal?
 - b) Too Tight, Prolapse

- 12) Lens Flexure
 - a) How to assess
 - b) How to fix

- 13) Corneal Staining
 - a) Sagittal height vs. Base Curve
 - b) Solution-related corneal toxicity

- 14) Limbal Staining
 - a) Evaluation and assessment of scleral landing zone
 - b) Various presentations and clinical signs
 - c) Adjusting Limbal Clearance

- 15) Limbal Hypertrophy
 - a) Evaluation and assessment of limbal zone
 - b) Various presentations and clinical signs
 - c) Adjusting Limbal Clearance

- 16) Conjunctival Staining
 - a) Evaluation and assessment of scleral landing zone
 - b) Adjusting scleral landing zone vs. overall diameter

- 17) Corneal Hypoxia
 - a) Clinical Signs and pachymetric measurement
 - b) Adjusting Sagittal height vs. Base Curve
 - c) Lens Thickness
 - d) Edge Lift

18) Lens dropping/Decentering

- a) Clinical presentation
- b) Associated impact on optical quality
- c) How to fix?

19) Fogging during the day

- a) Chamber Debris
- b) Fix the Fit
- c) Fix the Ocular Surface/Lids

20) Debris on the lens

- a) Where is it from
- b) How to fix

21) Redness/ Pressure upon removal of the lens

- a) Where and when?
- b) How to fix

22) Pingueculae/ pingueculitis

- a) Notching
- b) Microvaults
- c) Eyeprint