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Multifocal Fitting Tips for Soft, GP, Scleral & Hybrid Lenses

Shalu Pal, OD FAAO FSLS FBCLA FIAOMC
Yorkville Eye Institute
80 Bloor Street West, Suite 408
Toronto Ontario, M5S 2V1Canada
416-924-9210 Office, 416-845-4085 Cell
ShaluPal@hotmail.com

1 hour
Category: Contact Lenses
OD Education

Summary

Multifocal designs are improving but the fitting can still be a challenge. In this course the fitting process will be simplified. The essential tips and tricks needed to fit our patients successfully will be shared. A new way to explain presbyopia, how to set expectations, how to charge appropriately and what to do when a fit fails will be discussed. Audience participation will be needed to demonstrate the importance of a binocular distance over refraction. A comparison of strategies for Soft, GP and scleral lenses will be discussed. Several cases will be used to explain these fitting and communication tools.

Learning objectives

1. To learn a new way to explain presbyopia to reduce the fears, anxiety and frustrations that patients have.
2. To develop a simplified system to fit all forms of multifocal lenses from soft, soft toric, gas permeable and scleral lenses.
3. To have tips and tricks to troubleshoot a complicated fit when the basics are just not working.
4. To understand the used of customized optics including decentering optics, optic zone size and add power distribution patterns.

5. To understand the use of HOA optics and the impact on multifocal lens designs.

Course Outline

1) Understanding Presbyopia
    a. Why presbyopes struggle
    b. What are the misconceptions about aging?
    c. How to explain presbyopia to deal with all questions with the system of 10 units.
    d. Understanding the difference between presbyopia and accommodative fatigue and how they relate.

2) Progressives and Computer Progressives
    a. Designs
    b. Difference
    c. Explanation of design
    d. Winning patients overs
    e. When to start using them

3) Understanding multifocal lens designs
    a. How the pattern doesn't follow all traditional optics
    b. The difference between progressives and soft multifocal lenses
    c. Exploring the different designs
        i. Soft multifocals
        ii. GP multifocals
        iii. Scleral multifocals

4) What are the basic fitting steps to apply to all multifocal lenses
    a. Refraction strategies
    b. Eye dominance
    c. Initial lens selection
    d. Importance of the application/settling and adaptation
    e. Assessing the fit
    f. Assessing vision
    g. Troubleshooting issues
        i. Binocular distance over refraction
        ii. Fitting guides
    h. The follow up strategies

5) Why there is failure with fitting multifocal lenses
    a. It doesn't always work
    b. The design

c. The motivation
d. The alignment and fit
e. The expectations
f. Pupil Size
    i. How to measure
    ii. How to facture this in to your design
g. Decentration
    i. Lens Decentration
    ii. Pupil Centration
    iii. Customization
h. Simultaneous Vision Issues
i. Do you switch designs?
j. Do you give up?
k. How to turn a loss into a win.

6) How does modified monovision work?
    a. When to consider?
    b. What are the rules to fit this design?

7) Toric Multifocals
    a. When to consider
    b. How to use them
    c. Stock vs. custom

8) GP Multifocals
    a. How are they different?
    b. How to troubleshoot them?

9) Scleral Multifocals
    a. How are they different?
    b. How to troubleshoot them?

10) What you need to know from your lab
    a. What is the design of the lens
    b. Center Near, Center Distance or both
    c. Spherical, aspheric, concentric or combo designs
    d. Bifocal or trifocal segments
    e. Front surface, back surface or dual aspheric designs
    f. Optic zone size & ability to change
    g. Add power range possible
    h. Are there fitting sets for MFs
    i. Are there fitting guides
    j. Warranties and Costs

11) Understanding Scleral Lens multifocal lens designs
    a. How the pattern do not follow all traditional optics

b. How are they different from soft MFs
c. The difference between progressives and multifocal lenses
d. Exploring the difference designs
e. Ring patterns
f. Simultaneous vision
g. How over refractions really are impacting our vision

12) What are the basic fitting steps to apply to all multifocal lenses
    a. Before you start
        i. Ocular Surface
        ii. Documentation
    b. Fitting of lenses
        i. Trial Fitting
        ii. Empirical
        iii. Profilometry based – Free Form
        iv. Impression Based
    c. Important fitting tips
        i. centration

13) Decentering Optics
    a. identifying patients that could benefit from this
    b. How to design lenses with decentered optics
    c. Calculators
    d. Images
    e. Fitting options

14) Higher Order Aberrations
    a. How to measure
    b. How to factor them into your process
    c. Impact of correcting HOA

15) Order of operations
    a. Perfect the fit
    b. Ensure Centration
    c. Best distance sphere correction
    d. HOA to consider
    e. Correct Astigmatism
    f. Decentered optical design

16) Orthokeratology and Presbyopes

17) Custom soft multifocal lenses

18) Hybrid Multifocals
    a. Overview
    b. Design

c. Ordering of lenses – Empirical
d. Fitting guides & online calculators

19) Pharmaceutical Options
a. Review of drugs on the market and those in clinical research
b. Depth of Focus
c. Can these restore presbyopia
d. Advantages and pitfalls
e. Current research on their use

20) Case 1: Presbyopic female frustrated with her glasses and wants to pursue contact lens options
a. Low myope with a +2.00D add
b. Frustrated with her glasses because in the office she sees great without her glasses and wears a +1.00 to help her see better for small print
c. Getting tired of putting on and off the reading glasses
d. Only really wears her current progressive addition eye glasses for driving and critical distance viewing tasks
    i. Debate the options
        1. Continue with the current regimen
        2. Simultaneous soft multifocal design
        3. Custom soft multifocal
        4. Hybrid lenses
        5. Gas Permeable lenses
            a. Small diameter lenses
            b. Scleral lenses

21) Case 2: Gas permeable multifocal wearing presbyope – near vision is great but vision in the evening seems more difficult
a. Feels like night vision has never been as good as day time vision
b. Near vision is great in her current contact lenses
    i. Debate the options
        1. Continue with current regimen
        2. Simultaneous soft multifocal design
        3. Brimonidine for pupil control
        4. Custom soft multifocal
        5. Hybrid lenses
        6. Gas Permeable lenses
            a. Small diameter lenses
                i. Consider changing distance and near zone diameters
                ii. Consider segmented multifocal designs
                iii. Consider monovision with distance glasses over lenses for night vision
            b. Scleral lenses

i. Distance center
ii. Near center
iii. Aspheric
iv. Combination of the above designs

22) Case 3: Emerging presbyope who is starting to wear her contact lenses less often
    a. When questioned about the reason, she says that she feels she might be getting "too old" for contact lenses
    b. Upon further questioning, she says that the contact lenses are not as comfortable as they used to be
    c. Debate the options
        i. Continue with current regimen with an increased emphasis on cleaning – specifically rubbing the lenses
        ii. Change the lens modality
        iii. Change the lens material/design
        iv. Consider daily disposable modality
        v. Consider orthokeratology
        vi. Consider gas permeable lens options
        vii. Treat underlying ocular surface condition
            1. Decreased TBUT, mild inferior corneal fluorescein staining and mild conjunctival lissamine green staining, prominent lid wiper epitheliopathy
            2. Discuss treatment protocols