Presbyopic Soft Contact Lenses: Options for Success

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Disclosures

- Outside Consultant
  - Precilens
  - Coopervision
  - Research Funds
  - Bausch and Lomb

Multifocal Contact Lenses

- Friend or Foe?
- Love and Hate Relationships
- Risk - Reward

Steps for Success

- Patient Selection
- Patient Communication
- Lens Selection
- Lens Evaluation
- Troubleshooting

Challenges of Today’s Presbyopes

“'I love looking over my reading glasses to see the speaker and then through the lenses to take notes.'”
  - Said No Presbyope Ever

Patient Selection

- Who are our best patient to wear these lenses?
  - Early Presbyopes
  - Moderate Presbyopes
  - Advanced Presbyopes

- Do we have a choice?
  - Presbyopic population is getting larger... and they wear contact lenses!!!
U.S. Market for Presbyopia Correcting Lenses

- 74 million Baby Boomers born between 1946-1964
- In 2000 US census there were 100 million US citizens over the age of 45... in 2010, over 120 million presbyopes!
- In the next decade, 28% of all contact lens wearers will be >50 y.o.
- Between ages 35-55, 90% of CL wearers have done so their whole life

Patient Selection

- Ideal situation
  - Current contact lens wearer with a spherical refraction and a definite need for distance and near correction. This patient is motivated to stay out of glasses and there are no ocular surface changes that may occur with age. Tear break up time is >10 seconds, no systemic medications are being used and there are no chemical sensitivities.

Patient Selection

- Positive Outlook
  - Patients that currently wear soft lenses without significant dryness or other comfort issues
  - New CL wearers that are motivated to remain free from glasses
  - Patients that are willing to accept some vision compromise at some distances in order to gain freedom from spectacles for most daily activities
    - 80 / 20 rule
      - 20 / Happy

Patient Selection

- Positive Outlook
  - Most Hyperopes
    - Already somewhat blurry at distance and terrible and near
    - Really appreciate near VA and distance remain similar
  - Most Myopes
    - Moderate myopes may be tough to please (take specs off to read)
    - Low and Higher myopes typically use correction at both distances and would appreciate spectacle freedom

Patient Communication

- Talking to the patient... What a concept!
  - Address visual needs prior to selecting lens design
    - Which visual demand motivated your patient to seek MFCLs?
      - Computer, cell phone, watch, deskwork, etc
    - Often times, just achieving that ’need’ creates a happy experience!
  - Setting expectations
    - "I want you to be able to do most things, most of the time."
**Patient Communication**

- **Talking to the patient**
  - Setting expectations:
    - Use words like *balancing the vision demand* in the contact lenses, *functional vision, freedom from glasses*
    - Avoid using: *blurry, less crisp, glasses will always be better*
  - Encourage adaptation!
    - 15-20 minutes in office
    - 1-2 weeks after dispense

**Patient Communication**

- **Talking to the patient**
  - Pro’s of MF Soft Contact Lenses
    - Minimal adaptation
    - Designs continue to improve
    - Contrast sensitivity and other binocular functions are far superior to monovision
  - “Con’s” of MF Soft Contact Lenses
    - Vision is not like that of a 15 year old, but we’re getting closer
    - Seeing both near and far out of same spot in lens, reduces light rays at both distances

**Lens Selection**

- **Understanding Lens Designs**
  - Aspheric
    - Gradual change in the curvature of the lens surface to create a change in power toward the lens periphery
    - Can be center distance or center near
  - Annular / Concentric
    - Defined area in the center of the lens with a single power surrounded by one or more rings of alternating powers

**Lens Selection**

- **Understanding Lens Designs**
  - Aspheric
    - More balanced vision
    - Pupil dependant
  - Annular / Concentric
    - Less pupil dependant
    - Can cause ghosting and haloes

**Lens Selection**

- **Choosing the right lens design**
  - Know the lens specifics:
    - Product Review – tried and true
    - New kids on the block

  **** No financial interest in any mentioned products****

**Lens Selection**

*The Air Optix Multifocal Aqua has a three add system in order to accommodate the different degrees of presbyopia. Smooth power change for minimal glare. Three add powers make using unequal adds easy in order to enhance certain working distances.*
Lens Selection

- Choosing the right lens design
  - Know the lens specifics: CooperVision Biofinity Multifocal
    - Spherical central zone with surround aspheric concentric rings

- Oasys for Presbyopia
  - Alternating concentric rings and aspheric rings
  - "Aspheric Zonal" with center distance
  - Aspheric back surface for centration
  - 3 add powers

Lens Selection

- Choosing the right lens design
  - Know the lens specifics: Ultra for Presbyopia
    - Designed with "today’s world" in mind – smart phones, tablets, computers
    - 2 add powers to make lens selection and trouble shooting easy

But I love my dailies!

- Clariti 1 day Multifocal
- Aqua Comfort Dailies Plus Multifocal
- B+L BioTrue for Presbyopia
- Acuvue 1 Day Moist Multifocal

Daily Multifocal Options

- Clariti 1 Day Multifocal
  - Silicone Hydrogel
  - Center near sphere
  - 2 add powers
  - UV protection

- Daily Multifocal Options
  - Dailies Aqua Comfort Plus Multifocal
  - Center near optics – same as the AirOptix MF
    - Only change is the back surface is spherical rather than aspheric
    - 3 add powers
    - Usually take more plus in sphere
### Daily Multifocal Options

- **BioTrue for Presbyopia**
  - Same optics as Ultra for Presbyopia
  - Center near with enhanced intermediate zone
  - Two add powers

- **One Day Moist Multifocal**
  - Center near aspheric
  - Zone size changes with lens power to accommodate for pupil size
  - 183 add designs
  - UV Blocking

### Dailies are a great addition

- Consider recommending dailies to your monthly wearers for vacations, water activities, etc.
- I have patients than by 6 month of one design and 6 months of another
  - Dailies + monthly = 1 year

###Lens Selection

- **But what about my astigmatism?**
  - Rule out decreased vision quality due to rotation and rotational instability before addressing multifocal lens optics

- **Fitting tip:** Single vision toric lens trial with desired brand first!

### Lens Selection

- **But what about my astigmatism?**
  - Don't be afraid to try custom!
  - Can specialize lenses for pupil and cornea size
    - Special measurements = enhanced vision for a patient that could otherwise not wear MF's!
  - Small vs Large pupils
Fitting Soft Multifocal Contact Lenses

**Steps to Success**

- **Slit Lamp Observations**
  - Evaluate eyelid health and tonicity
  - Evaluate for signs of dry eye – then treat!
  - MGD and presbyopes
  - Treat the “Vision Fluctuations”
  - Evaluate conjunctiva for any abnormalities that may affect lens centration and movement
- Refraction and add for best corrected VA

- **Detailed refraction and add power determination**
  - Don’t forget all lens fitting rules
  - Large corneas should have a larger diameter CL, etc
  - When the lens fits the optics are going to perform best
  - Note pupil size
  - Test eye dominance
  - Examine tear layer and eyelid position
  - Become familiar with lens fitting guides

- **Use real world examples for acuity testing**
  - Use loose lenses while patient views smart phone, computer, newspaper, etc.
  - Have patients look out window to assess vision quality at distance
  - The Snellen chart can make things appear worse than real life tasks
  - “How often do you read something that small?”

- **Step 1**: Choose lower add first to maintain distance VA
  - I tell my patients, “I am going to under-prescribe the reading power, then we will make it stronger as needed”
  - Pt does not panic if they can’t see well with first trials
- **Step 2**: Loose lens OR over dominant eye to optimize distance
  - Only add minus if it significantly improves vision
- **Step 3**: Loose lens with plus over non-dominant eye, checking distance and near (both eyes open).
- **Step 4**: Repeat steps 2 and 3 until additional plus in either eye disrupts distance vision

**OVER-REFRACTION**

- Acuity: Monocular!
- OR: Binocular!

**Evaluation of Soft MFCLs**

**Distance Vision Evaluation**

- Patience is key
  - Allow time to settle for optimum measurements
  - Initial measurements
  - Binocular Distance and Near VA
  - Skip the phoropter
  - Loose lenses monocularly, push plus
  - Improve distance VA in dominant eye

- My pearl: I always make sure the distance is acceptable first, the work near eye, then go back to distance eye to improve add if really needed
Evaluation of Soft Multifocal Lenses

- **Intermediate vision evaluation**
  - I usually place the patient at the computer
  - Let them choose a familiar website to evaluate vision quality
  - Ask them to move closer or further away to evaluate how the add power is functioning and adjust powers from there

- **Near Tasks**
  - Good to obtain Snellen VA for record keeping (but that's all it's good for)
  - Add plus over less dominant eye to improve near vision
  - Adjust add power first, then decrease overall lens power if near VA is still unacceptable.
    - Higher add with same sphere will maintain distance VA / binocularity better than lower add with more plus sphere

Evaluation of Soft Multifocal Lenses

- **Lens Fitting**
  - Evaluate movement on blink, centration and coverage as you would other lens designs
  - Centration, both vertical and horizontal, should be carefully evaluated
    - Line of sight vs lens optics – angle Kappa
    - Custom designs with decentered optics

Trouble Shooting Soft Multifocal Lenses

- **Near problems**
  - If I can't achieve good near VA with max add powers, what next?
    - Push plus at distance in non-dominant eye
  - If near is a very demanding part of patients day, they may accept some distance blur and prefer the higher add power in the dominant eye
    - Tell the patient to get arm extensions.
    - GPs?
  - "Readers will always make things more clear, because they magnify!"

Trouble Shooting Soft Multifocal Lens Wear

- **Other issues**
  - Ghosting and Haloes
    - Add a little minus power to dominant eye or both
    - Re-evaluate and treat tear film insufficiencies
  - Ensure good lens centration
    - If not centered well, may need to try another lens design

Trouble Shooting Soft Multifocal Lens Wear

- **Retest dominance**
- **Not all designs are the same**
  - Patients will be sensitive to different things
    - Center distance / center near / intermediate powers
  - Materials and parameters
  - Lens centration
TROUBLESHOOTING: SOFT MULTIFOCALS

- Lower the add power and add plus to sphere power to decrease aberrations
- Revisit patient goals - get what they need most!
- Unequal adds can improve both distance and near

Multifocal Contact Lenses

- Definitely a friend, not a foe
- This is a growing part of our practice
- Builds your practice revenue, and patient loyalty

Multifocal Contact Lenses

And so am I!

Thank you!

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