

On behalf of Vision Expo, we sincerely thank you for being with us this year.

Vision Expo Has Gone Green!

We have eliminated all paper session evaluation forms. Please be sure to complete your electronic session evaluations online when you login to request your CE Letter for each course you attended! Your feedback is important to us as our Education Planning Committee considers content and speakers for future meetings to provide you with the best education possible.



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Disclosures

- We have no relevant financial relationships to disclose.

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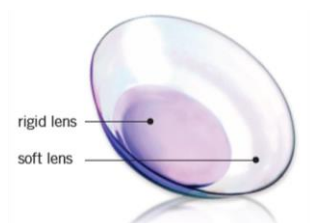
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Hybrids are EVERYWHERE!



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What is a hybrid lens?



- Combines two types of lens materials into one unique lens
- Center consists of rigid gas permeable material to provide clear and stable vision
- Surrounding soft skirt provides comfort throughout the day

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Additional Advantages of Hybrid Lenses

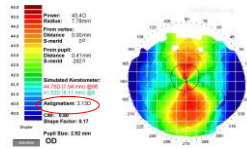
- Great option for astigmatic patients
- Vision NOT affected by lens rotation
- 130-Dk GP and 84-Dk silicone hydrogel soft skirt provide excellent oxygen transmission
- Tangible™ Hydra-PEG coating provides increased lubricity
- SoftCushion® Comfort Technology enhances comfort



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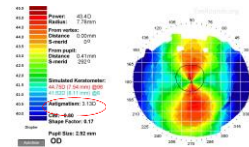
GOOD candidate for HYBRIDS

- Low to high astigmats
- Unhappy toric SCL wearers
- Presbyopic combined with astigmatism
- Soft MF wearers who want crisper vision with a greater range
- Corneal astigmatism **MUST** match refractive cylinder
 - -2.00-3.00x180



POOR candidates for HYBRIDS

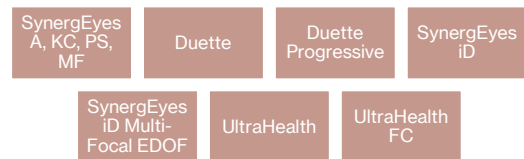
- Last resort patients
- Patients who prefer convenience over everything
- **Patients with residual astigmatism**
 - **-2.00-5.00x180**



Most EXCITING Advantage:

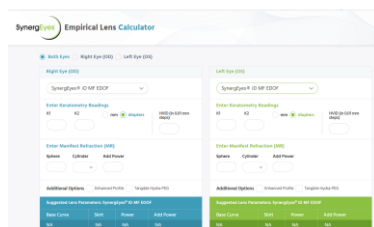
Exclusively available from
independent eyecare professionals –
not available online or through mass
merchandisers!

Hybrid Portfolio



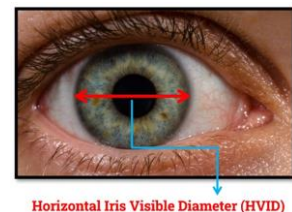
Fitting Process

- Fitting Set
- Empirical Fitting
 - Online Calculator
 - Consultation



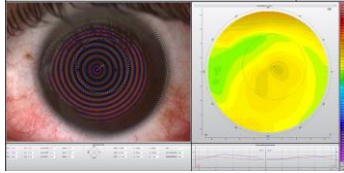
KEY Data Points for REGULAR CORNEA

- Manifest Refraction
- Keratometry Values
- HVID



KEY Data Points for IRREGULAR CORNEA

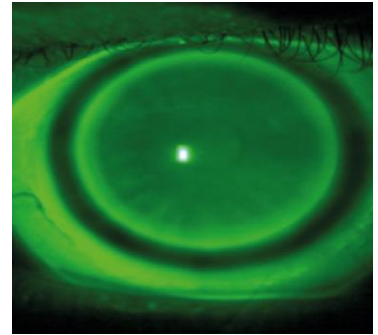
- Manifest Refraction
- Topography
- Eccentricity value
- HVID



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Ideal Fit

- Good centration
- Optical zone over the pupil
- 0.5mm to 1.00mm of movement with each blink
- GP portion in alignment with the cornea



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The Persistent Presbyope

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PATIENT BACKGROUND

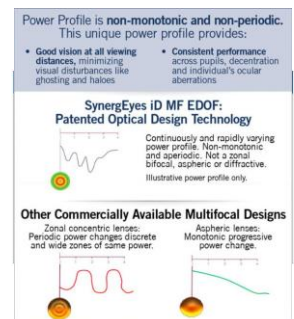
- 51 yo, Hispanic Male, Works in IT
- Medical and Ocular History unremarkable
- Has tried several presbyopic SCL options – MF torics and monovision – with NO success
- Since he works in IT, computer and near vision are very important to him. Every lens we tried up to this point compromised his overall vision thus he always reverted to his PALS. He is VERY motivated to be in contact lenses and is always willing to try something new.



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SynergEyes iD Multi-Focal EDOF

- Has a unique power profile that is non-monotonic and aperiodic.
- Unique combinations of Higher Order Aberrations are utilized to elongate the patient's depth of focus, for clearer vision at near, intermediate and distance.
- Linear skirt based on HVID



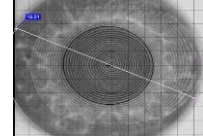
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SynergEyes iD Multifocal EDOF Lens Parameters

Diameter	14.5mm
Skirt	38 to 49 in increments of 1 step to accommodate HVID range of 10.0 to 13.0mm. HVID outside the measurements will default to 10.0 or 13.0mm.
Base Curves	7.10mm to 8.30mm in increments of 0.01mm
Multifocal Lens Powers	+5.50 to -10.00D +5.50 to -8.00D in 0.25D steps -8.50 to -10.00D in 0.50D steps Add Power: Low, Medium, High

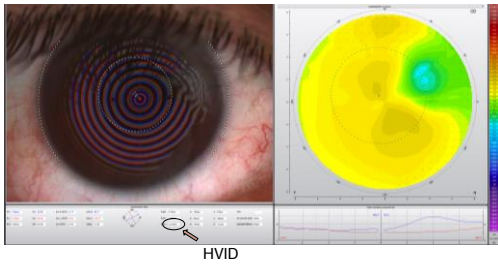
OBJECTIVE FINDINGS: Oculus 5M Keratograph

- Manifest Refraction:
 - OD -0.75-3.00x037
 - OS -3.00-1.00x092
 - Add: +2.00
- Keratometric Readings
 - OD 46.00 @ 118 / 42.90 @ 028
 - OS 45.40 @ 043 / 44.70 @ 133
- Horizontal Visible Iris Diameter (HVID)
 - OD 11.04 mm
 - OS 11.21mm

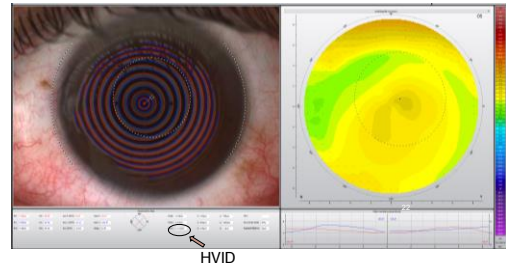


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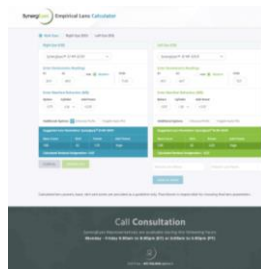
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Ordering Process

- Used the Empirical Lens Calculator
- Easy and Efficient!
- Enhanced Profile automatically added to OD lens due to higher cylinder power
- Opted against the HydraPeg since he is a first time hybrid wearer – concerned about added trouble with removal. Also, he never really mastered removal of SCLs either.



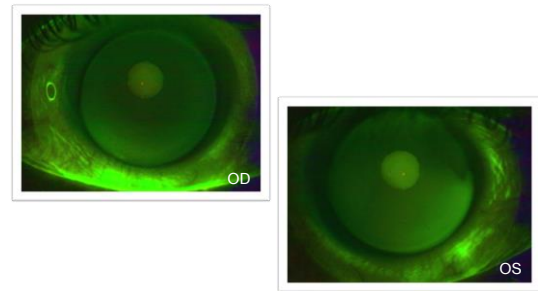
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DISPENSING VISIT

- PARAMETERS
 - OD: ID MF EDOF BC = 7.69 SK= 42 Power = -1.75 Add = High
 - OS: ID MF EDOF BC = 7.48 SK= 42 Power = -3.25 Add = High
- Visual Acuity
 - Distance OD: 20/20- OS: 20/20- OU: 20/20
 - Near: OD: 20/25 OS 20/25 OU: 20/20
- Well centered fit (better centration OS) with appropriate clearance and movement.
 - Ordered steeper BC OD to improve centration



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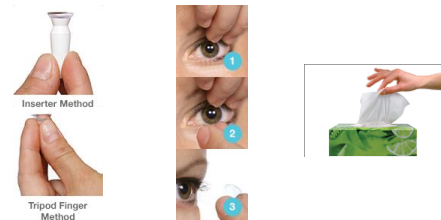
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UH OH.....Something went wrong!



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Insertion and Removal Tips



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Lens Care Reminders

- Daily Cleaning: MPS or H₂O₂ based cleaner
- Filling Solution: PF Saline
- Rewetting Drops: PF only
- Replacement Schedule: every 6 months



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FOLLOW-UP VISIT

- PARAMETERS (New Lenses)
 - OD: ID MF EDOF BC = 7.58 SK= 42 Power = -2.25 Add = High
 - OS: ID MF EDOF BC = 7.48 SK= 42 Power = -3.25 Add = Hig
- Visual Acuity
 - Distance OD: 20/20- OS: 20/20- OU: 20/20
 - Near: OD: 20/25 OS 20/25 OU: 20/20
 - Over-Refracton
 - Distance: OD -0.25, OS +0.00
 - Near: OD plano, OS plano
- No additional changes needed.
- Pt has been wearing lenses successfully with no issues but chooses to wear PALs on occasion and THAT'S OK!!

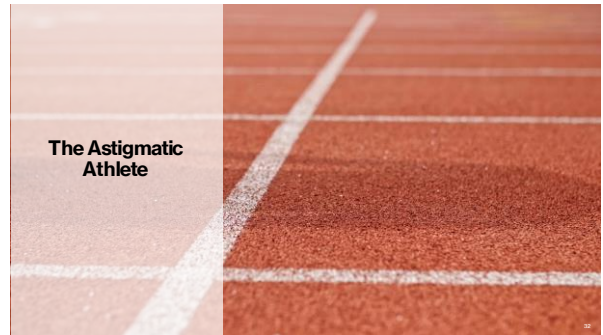
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OUTCOME/CLOSING COMMENTS

- Due to his irregular astigmatism, finding a soft toric lens that would sit properly on his cornea without causing fluctuating vision was a daunting task.
- The SynergEyes iD MF EDOF lens neutralized most of his corneal astigmatism which allowed him to not only have clear vision but also consistent vision!



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PATIENT BACKGROUND

- 8 yo, AA female
- Plays soccer, volleyball, runs track and is on the swim team
- MGF has KCN -- pt has no signs of KCN but does have high cylinder
- Has never worn CLs of any kind but has worn spectacles since age 5
- Mom would prefer a daily disposable CL option



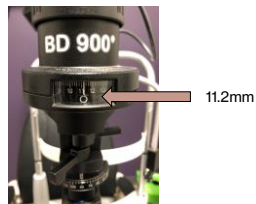
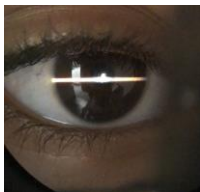
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OBJECTIVE FINDINGS

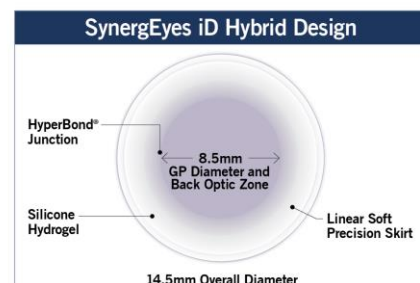
- Manifest Refraction:
 - OD +0.50-3.25x005
 - OS +1.00-3.25x175
- Keratometric Readings -Topcon Auto-refractor/Auto-keratometer
 - OD 41.75 @ 179 / 44.50 @ 089
 - OS 41.75 @ 175 / 44.50 @ 085
- Horizontal Visible Iris Diameter HVID (Slit Lamp Reticle)
 - OD 10.5mm
 - OS 10.5mm

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HVID with Slit Lamp Reticle



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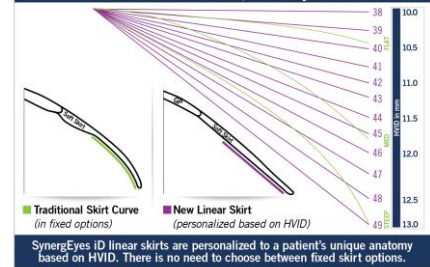
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SynergEyes iD Single Vision Lens Parameters

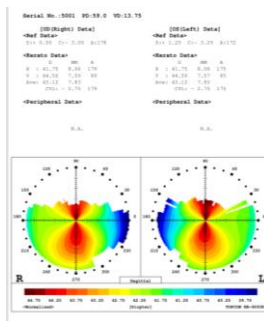
Diameter	14.5mm
Skirt	38 to 49 in increments of 1 step to accommodate HVID range of 10.0 to 13.0mm. HVID outside the measurements will default to 10.0 or 13.0mm.
Base Curves	7.10mm to 8.30mm in increments of 0.01mm
Single Vision Lens Powers	+10.00 to -15.00D +8.00 to -8.00D in 0.25D steps +8.50 to +10.00D in 0.50D steps -8.50 to -15.00D in 0.50D steps

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Precision Linear Skirt, driven by HVID



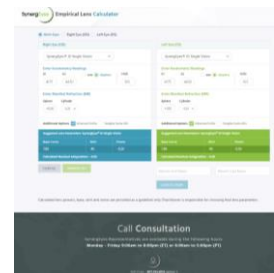
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Ordering Process

- **Used the Empirical Lens Calculator**
 - Can order on my own time
 - No need to wait on hold
- **Enhanced Profile automatically added to OU lens due to higher cylinder power**
- **Opted against the HydraPeg since she is a first time hybrid wearer – concerned about added trouble with removal**
- **NOTE: Mom wanted a daily disposable option but after educating her on lack of Rx availability and likelihood of better success with this design, she was on board!**



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DISPENSING VISIT

Additional Options
Enhanced Profile
Toggle Hyper-PDS

Suggested Lens Parameters: Springfield® 20 Single Vision

Base Curve	SA/D	Power
7.39	40	-0.00

Calculated Residual Astigmatism: -0.56

Additional Options
Enhanced Profile
Toggle Hyper-PDS

Suggested Lens Parameters: Springfield® 20 Single Vision

Base Curve	SA/D	Power
7.39	40	0.00

Calculated Residual Astigmatism: -0.56

CLEAR ALL
RECALCULATE SUG

Patient's First Name
Patient's Last Name

LEARN TO CHOOSE

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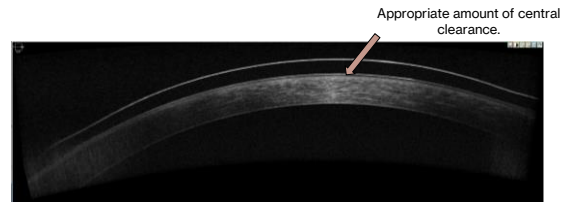
- PARAMETERS
 - OD: ID SV BC = 7.89 SK = 40 Power = -0.50
 - OS: ID SV BC = 7.89 SK = 40 Power = Plano
- Visual Acuity
 - Distance OD: 20/25+ OS: 20/25+ OU: 20/20
 - Near: OD: 20/25 OS 20/25 OU: 20/20
- Well centered fit with appropriate clearance and movement.
- VERY difficult insertion and removal training in office. I was able to insert and remove the lens for the patient but she had to return 3 times for additional training. Mom was able to help some but the patient was determined to do it on her own.

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I&R Woes...

- We tried both the tripod and plunger method.
- She ultimately had success with the tripod method.
- She was most bothered by having to remove her stick on nails. ☹️

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OCT: Not necessary but fun to look at!

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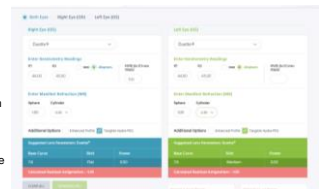
FOLLOW-UP VISIT

- Visual Acuity
 - Distance OD: 20/25+ OS: 20/25+ OU: 20/20
 - Near: OD: 20/25 OS 20/25 OU: 20/20
- Over-Refraction
 - Distance: OD +0.25, OS +0.25
 - Near: OD plano, OS plano
- Incorporated OR OU and finalized lenses.
- She can wear lenses all waking hours with no issues! She also reports being so happy to wear cute sunglasses now that she doesn't have to wear glasses when outdoors!

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What if you get a SCOR?

- Cannot add FST optics
- Lenticular astigmatism cannot be accommodated
- But, CAN add an Enhanced Profile
 - SCOR axis = axis of corneal astigmatism
 - Thicker GP
 - Reduces flexure
 - Automatically added when 2.50D or more of cylinder



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OUTCOME/CLOSING COMMENTS

- Fitting children in contact lenses (especially a specialty design) can seem challenging but if the patient and parents are motivated, it can improve the child's quality of life significantly!



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Identifying Progressive Myopia

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PATIENT BACKGROUND

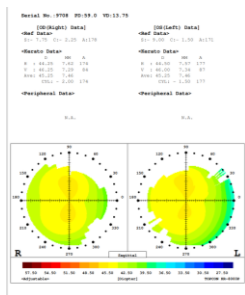
- 13 yo, Asian female
- Has been a spectacle wearer since age 6
- Virtual school for the last 6 months – reports worse vision for the last 1 month
- Avid reader
- Mother, Father and younger brother all moderate myopes
- Has worn daily disposable SCLs for recreation
- Family now very interested in myopia management options

OBJECTIVE FINDINGS

- Manifest Refraction:
 - OD -7.25-2.50x177
 - OS -8.50-1.25x180
- Manifest Refraction (8 months prior):
 - OD -6.50-2.00x175
 - OS -7.50-1.25x180
- Keratometric Readings -Topcon Auto-refractor/Auto-keratometer
 - OD 44.25 @ 174 / 46.25 @ 084
 - OS 44.50 @ 177 / 46.00 @ 087
- Horizontal Visible Iris Diameter HVID (Slit Lamp Reticle)
 - OD 11.2mm
 - OS 11.2mm

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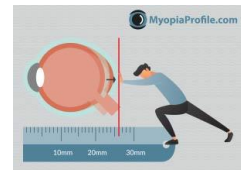
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Myopia Management Options

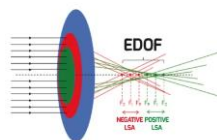
- MiSight ✗
- Orthokeratology ✗
- Soft Toric MFs
- Custom Soft Toric MFs
- SynergEyes iD MF EDOF
- Atropine + SV SCLs ✗



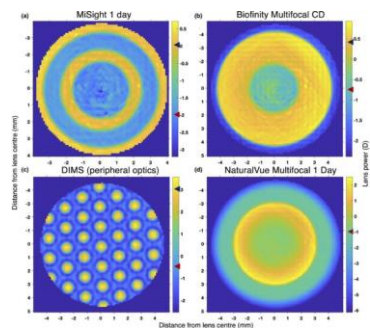
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Advantages of EDOF Design

- Creates a range of clear vision at different distances on the visual axis.
- For Myopic children, the EDOF aims to provide competing signals on the retina - one to correct vision, and another in front of the retina, creating relative myopic defocus to slow eye growth.



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Ordering Process

- Used the Empirical Lens Calculator
- Enhanced Profile automatically added to OD lens due to higher cylinder power
- Added HydraPeg for additional comfort
- NOTE: off-label use of EDOF lens for myopia management
- Opted for High Add to maximize anti-myopia effect in the peripheral retina

DISPENSING VISIT

- PARAMETERS
 - OD: iD EDOF MF BC = 7.46 SK= 42 Power = -7.50 Add: High
 - OS: iD EDOF MF BC = 7.46 SK= 42 Power = -8.50 Add: High
- Visual Acuity
 - Distance OD: 20/20- OS: 20/20- OU: 20/20
 - Near: OD: 20/20 OS 20/20 OU: 20/20
- Slightly decentered temporally OU with appropriate clearance and movement.
- She reported great near vision but noticed "wavy" distance vision.

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FOLLOW-UP VISIT

- Visual Acuity
 - Distance OD: 20/20- OS: 20/20- OU: 20/20
 - Near: OD: 20/20 OS 20/20 OU: 20/20
- Over-Refraction
 - Distance: OD -0.25, OS -0.25 (no visual acuity improvement)
 - Near: OD plano, OS plano
- Pt reported improvement in overall vision – no more wavy vision.
- Noticed temporal injection OS>OD but pt had no complaints.

Call with consultation team:

- Due to redness temporally OU and decentration, we decided to alter the fit
- PARAMETERS
 - OD: iD EDOF MF BC = 7.38 SK= 42 Power = -8.00
 - OS: iD EDOF MF BC = 7.38 SK= 42 Power = -9.00
- Steepped BC to improve centration which should help with redness.

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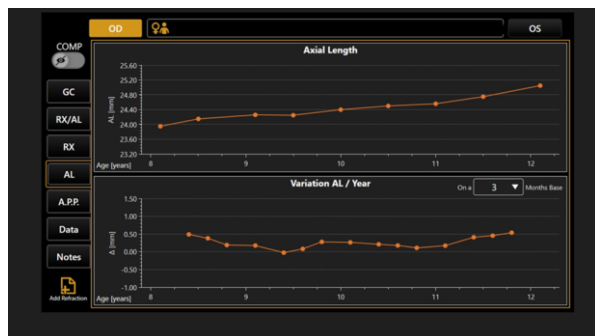
FOLLOW-UP VISIT

- Visual Acuity
 - Distance OD: 20/20- OS: 20/20- OU: 20/20
 - Near: OD: 20/20 OS 20/20 OU: 20/20
- Over-Refraction
 - Distance: OD -0.25, OS -0.25 (no visual acuity improvement)
 - Near: OD plano, OS plano
- Pt reported no redness or discomfort in new lenses!
- Follow-up care every 3 months due to high risk for continued progression.



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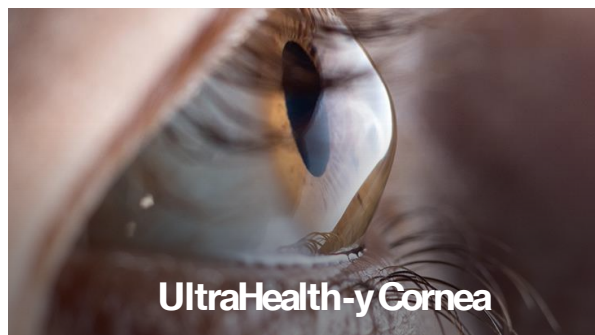
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OUTCOME/CLOSING COMMENTS

- Think outside the box...
- This patient's myopia is progressing at a rapid rate – intervention is imperative!
- Her high Rx and moderate astigmatism OD creates barriers to most CL options except for the...SynergEyes MF EDOF lens design!
- Although off label, this lens is ideal for what we are trying to achieve for this patient – clear vision with myopic defocus in the peripheral retina.
- Close follow-up is warranted to ensure the desired results.

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Patient Background

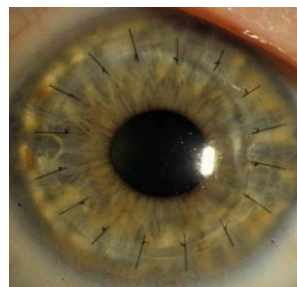
- 30 year-old AA male
- Ocular history:
 - Moderate to Severe Keratoconus OU diagnosed at the age of 21
 - Bilateral penetrating keratoplasties (PKP) 2 years (OD) and 2.5 years (OS) prior
- Extensive, unsuccessful contact lens history
 - Soft toric contact lenses
 - RGPs
 - Sclerals

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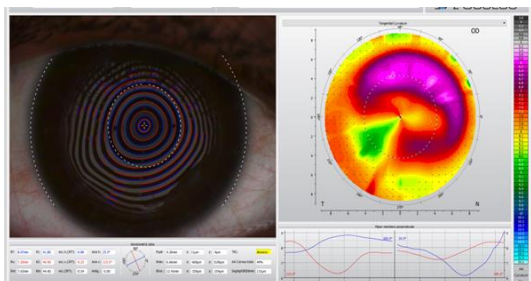
Objective Findings

- Manifest Refraction:
 - OD: -6.00-5.50x037 20/70
 - OS: -4.75-4.50x122 20/40
- Keratometry Values:
 - OD: 41.80 @ 25.5 / 46.90 @ 115.5
 - OS: 43.20 @ 146.9 / 47.10 @ 56.9
- HVID (topographer):
 - OD: 12.45 mm
 - OS: 12.52 mm

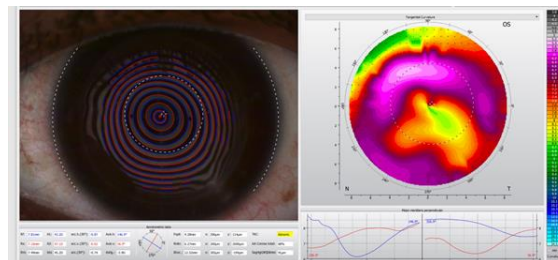
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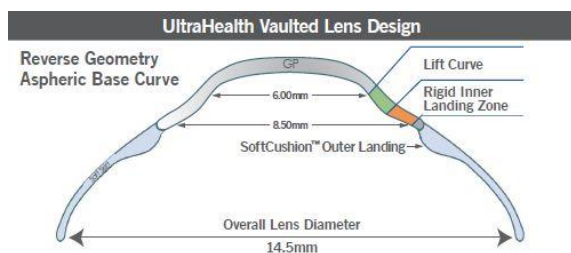
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ULTRAHEALTH | The Most Advanced Hybrid Lens for Irregular Corneas | Requires a Diagnostic Set*

Diameter	14.5mm
Vault Values	50 to 550 in 50µ steps 8.7 Flat2, 50-250
Skirt Curves	8.7 Flat2, 8.4 Flat, 8.1 Medium, 7.9 Steep
Lens Powers	+10.00 to -20.000 +10.00 to +2.500 in 0.500 steps +2.00 to -3.000 in 0.250 steps -3.50 to -20.000 in -0.500 steps
Materials	84 Dk Silky skirt, 130 Dk GP center
Class II UV blocker	UVA and UVB

UltraHealth® Advanced Hybrid Design High Dk (84) Silky Skirt & Hyper Dk (130) GP utilizing patented HyperBond® technology.

Aspheric Reverse Geometry Vaulted Lens Design

Optimized lacrimal lens results in lower powers and reduced aberrations

Reverse geometry, vaulted design clears the vast majority of ectasias

High Dk (84) Silky skirt

Hyper Dk (130) GP

Optics centered over visual axis

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Advantages of HYBRIDS for Irregular Cornea

- Hybrid design provides superior centration compared to GP lenses.
- Stable platform keeps optics centered over visual axis.
- Rigid lens material neutralizes corneal irregularity.
- Optimized reverse geometry design results in lower lens powers and reduction of aberrations.
- Vaults over most ectasias without bearing to ensure corneal surface integrity.

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Call CONSULTATION!

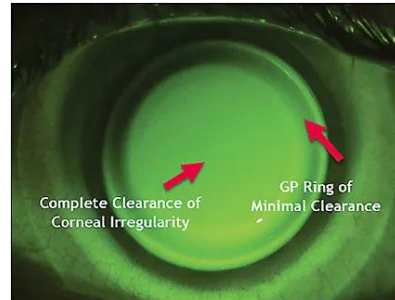
- What's needed:
 - Best possible refraction
 - HVID
 - Topography
 - Keratometry Values
 - Eccentricity value



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Dispense Visit #1

- OD: SynergEyes UltraHealth 290 Vault / 8.1 MED skirt / 14.5 DIA / -15.50 D.S.
- OS: SynergEyes UltraHealth 250 Vault/ 8.1 MED skirt / 14.5 DIA / -10.00 D.S.
- Visual Acuity
 - OD 20/80 SOR +2.00 20/30
 - OS 20/50 SOR -1.75 20/25
- Great centration and appropriate movement and fit



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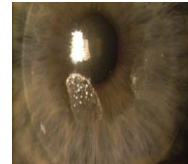
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Dispense Visit #2

- OD: SynergEyes UltraHealth 290 Vault / 8.1 MED skirt / 14.5 DIA / -13.50 D.S.
- OS: SynergEyes UltraHealth 250 Vault/ 8.1 MED skirt / 14.5 DIA / -11.75 D.S.
- Visual Acuity
 - OD 20/30
 - OS 20/25
- Great centration and appropriate movement and fit

Follow-up Visit

- VERY happy with the lenses BUT reported deposits on the lenses that could not be removed with digital rubbing



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Problem SOLVED!

- Order one additional pair of lenses with Tangible HydraPeg
- This is a one-time coating that is added to the lens to help improve contact lens problems related to discomfort, dryness, fogging or deposits.
- Coating lasts the lifetime of the hybrid lens which is 6 months.
- Patient was instructed to continue use of a multi-purpose cleaner or hydrogen peroxide-based cleaner with the new lenses



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OUTCOME/CLOSING COMMENTS

- May have seemed like a hopeless situation due to lack of success in most other options
- UltraHealth should be considered as a first line option for KCN and irregular cornea patients – SCLERALS aren't always best!
- Monitor closely for graft patients to ensure no issues with stitches or ocular health

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THANK YOU!!!

ashley.w.tucker@gmail.com

