

## BluePrint for Success: Hybrid Contact Lens Case Series

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### Hybrid Lens Designs:

- Duette
  - This lens is ideal for patients with corneal astigmatism especially for those who have not had success in soft toric lenses due to comfort and/or inconsistent vision.
- Duette Progressive
  - This lens has the same design as the Duetter but has the added benefit of a center distance or center near multifocal.
- SynergEyes iD Single Vision
  - This lens is designed with a linear skirt which better aligns with the patient's unique ocular anatomy.
- SynergEyes iD EDOF MultiFocal
  - This lens has the same design as the single vision lens but also has a multifocal power profile that is both non-monotonic and aperiodic. Additionally, in order to create the extended depth of focus (EDOF) for the patient, the lens utilizes a unique combination of higher order aberrations.
- UltraHealth
  - This lens consists of a reverse geometry design which accommodates a wide variety of irregular corneas including keratoconus and post-surgery.

### Cases:

- **The Persistent Presbyope**
  - 51 year old Hispanic male reported with an interest in wearing contact lenses
  - IT professional working 12+ hours/day on his computer
  - Had tried several contact lens options with minimal success including soft multifocal torics, monovision with soft torics and single vision contact lenses with the addition of over the counter readers as needed
  - Primary goal was to wear contact lenses for work instead of glasses with clear intermediate vision being top priority.
  - Objective Findings
    - Manifest Refraction:
      - OD -0.75-3.00x037
      - OS -3.00-1.00x092
      - Add: +2.00 (OD dominant)
    - Keratometry Values
      - OD 43.25 @ 027 / 46.75 @ 117
      - OS 45.50 @ 131 / 46.50 @ 041

- HVID (Topographer)
      - OD 11.04 mm
      - OS 11.21 mm
    - Lens Order
      - OD: SynergEyes iD MF EDOF BC = 7.42 SK= 42 Power = -3.00 Add = High
      - OS: SynergEyes iD MF EDOF BC = 7.26 SK= 42 Power = -3.75 Add = High
- **iDing Progressive Myopia**
  - 13 year old Caucasian female presented along with her family for a myopia management consultation
  - First diagnosed with myopia at the age of 8 and had been wearing single vision spectacles or single vision soft contact lenses since her initial myopia diagnosis.
  - Had been doing virtual school for the previous 6 months leading up to the appointment, was an avid reader (3-4 hours/day), and had limited outdoor time (less than 30 minutes per day)
  - Both parents and younger brother were all moderate myopes
  - Objective Findings:
    - Manifest Refraction (current):
      - 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
    - Keratometry Values
      - OD 44.25 @ 174 / 46.25 @ 084
      - OS 44.50 @ 177 / 46.00 @ 087
    - Horizontal Visible Iris Diameter HVID (Slit Lamp Reticle)
      - OD 11.2 mm
      - OS 11.2 mm
  - Lens Order
    - OD: SynergEyes iD EDOF EP BC = 7.46 SK= 42 Power = -7.25 Add High
    - OS: SynergEyes iD EDOF BC = 7.46 SK= 42 Power = -8.00 Add High
- **UltraHealth-y Cornea**
  - 30 year old African American male reported with an extensive, unsuccessful contact lens history
  - Ocular history included moderate to severe Keratoconus OU diagnosed at the age of 2 and underwent bilateral penetrating keratoplasties (PKP) 2 years prior.
  - Had worn soft toric contact lenses, RGPs, and scleral contact lenses each with their own shortcomings

- 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
- Lens Order
  - 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.