

**Bovier/Wenzel**  
University of Georgia

**12 Week Intervention  
with  
EyePromise<sup>®</sup> Restore**

# Method

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## Procedure

- Baseline
  - Informed consent
  - Screener questionnaire
  - Food Frequency Questionnaire
    - 12 months
  - Measurement of MPOD
    - Two visits within 48 hours
  - Measurement of contrast sensitivity
  - EyePromise® Restore
    - ZeaVision (St. Louis, MO)



# Conclusions

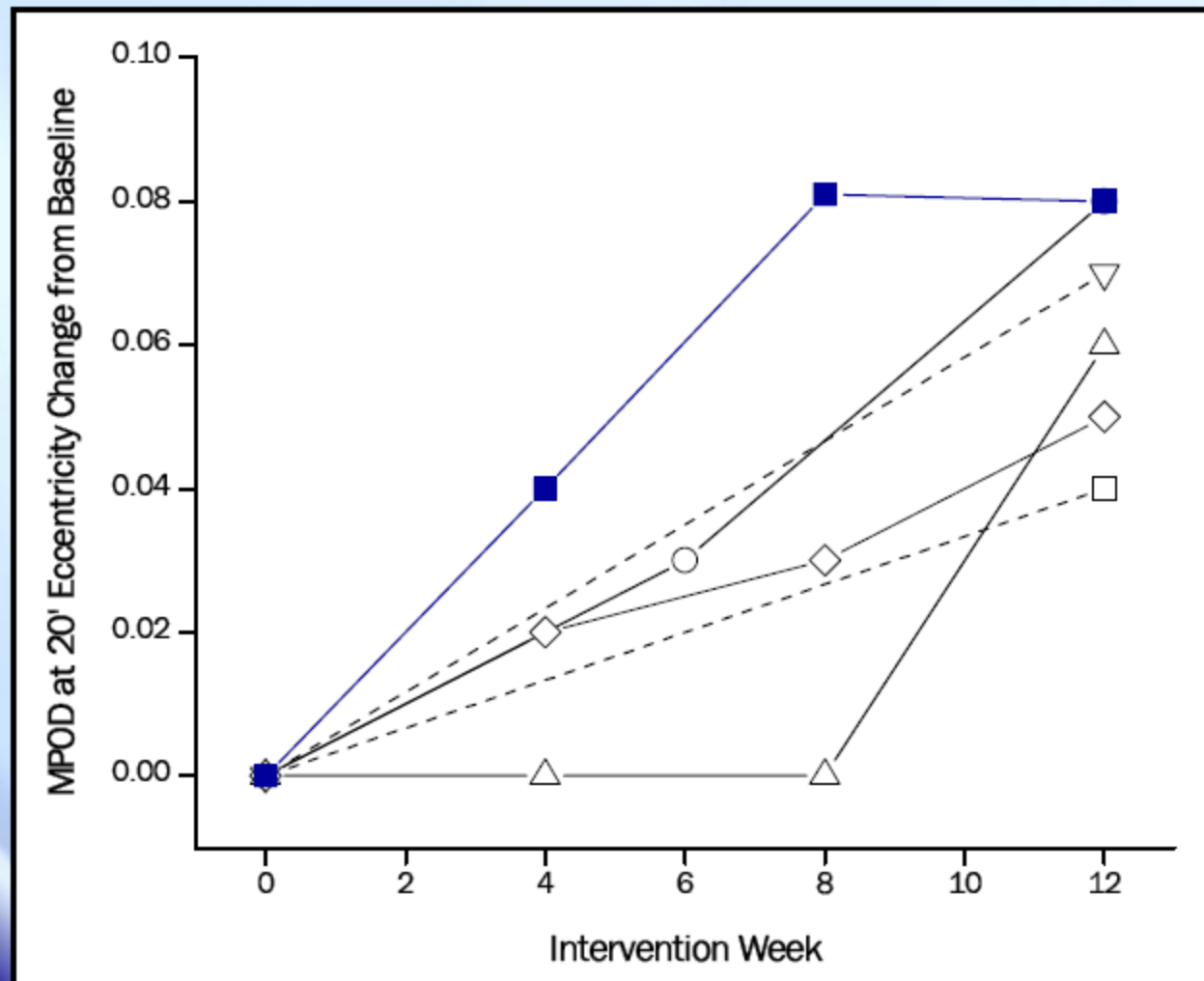
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## Changes in MPOD

- Novel treatment of lutein and zeaxanthin
- Exclusively female sample
- Significant increases across the retina ( $p < 0.05$ )
  - Fovea (i.e., 15' eccentricity)
  - Parafovea (i.e., 70' eccentricity)
- Concordance increases (right and left eyes)
- Combined intervention more efficacious
  - Compared to studies using either lutein or zeaxanthin alone

# Conclusions

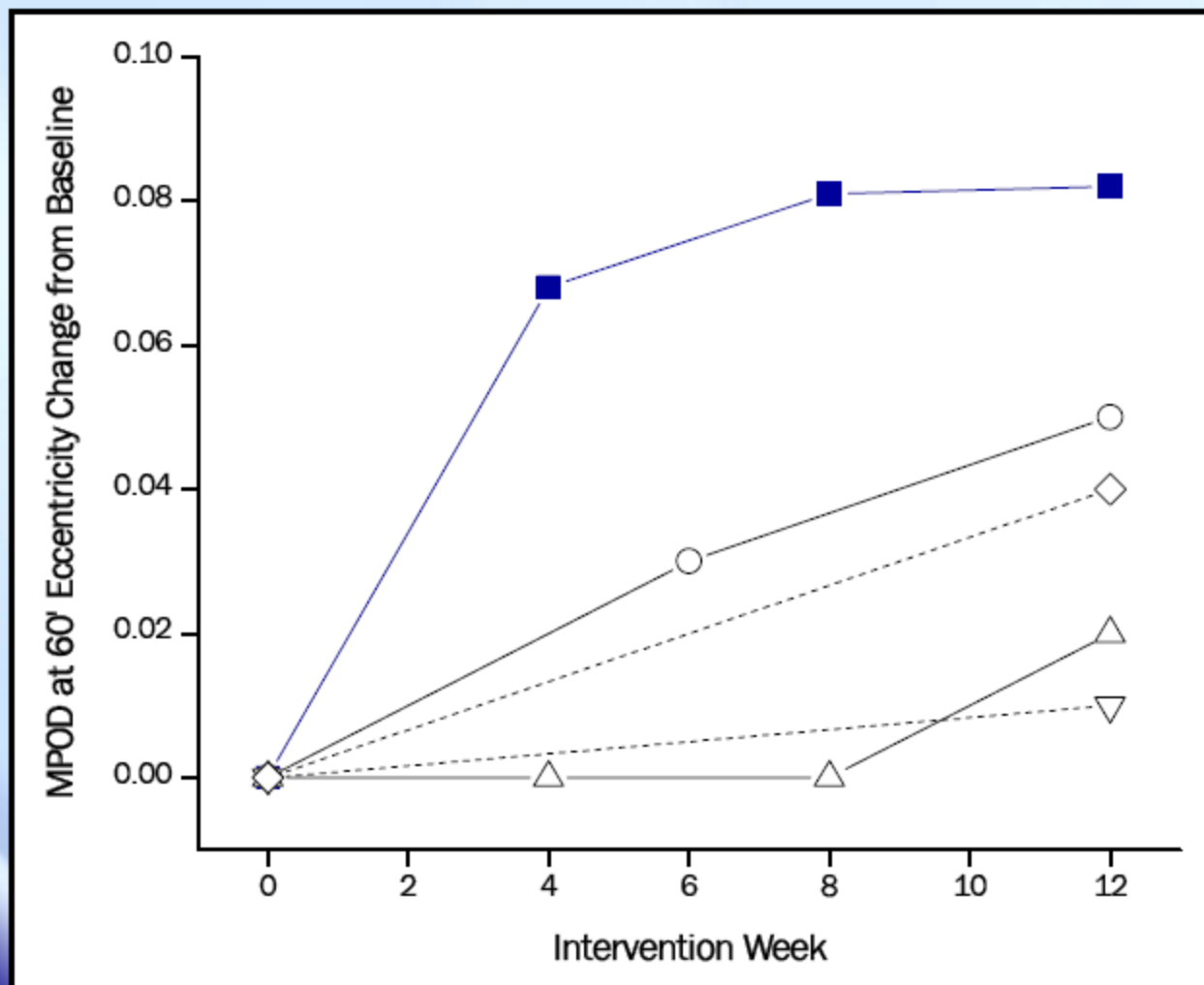
## MPOD Increase from Baseline at 20' Eccentricity



- Current Project:  
16mg/d Z + 8mg/d L
- Wenzel et al. (2006):  
30mg/d L
- ▽ Aleman et al. (2001):  
20mg/d L
- △ Sheehan et al. (2005):  
20mg/d Z
- ◇ Wenzel et al. (2007):  
30mg/d L
- Duncan et al. (2002):  
20mg/d L

# Conclusions

## MPOD Increase from Baseline at 60' Eccentricity



- Current Project:  
16mg/d Z + 8mg/d L
- Wenzel et al. (2006):  
30mg/d L
- ▽ Aleman et al. (2001):  
20mg/d L
- △ Sheehan et al. (2005):  
20mg/d Z
- ◇ Wenzel et al. (2007):  
30mg/d L

# Conclusions

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## Changes in Spatial Distribution of Macular Pigment

- Integrated MP
  - Right eye
    - iGMP = 32% increase; iLMP = 22% increase
  - Left eye:
    - iGMP = 43% increase; iLMP = 25% increase
  - ~30% increase in amount of light filtered by macular pigment
- 30mg/d lutein for 12 weeks (Wenzel et al., 2005)
  - 13% increase in integrated MP
- Protection against AMD

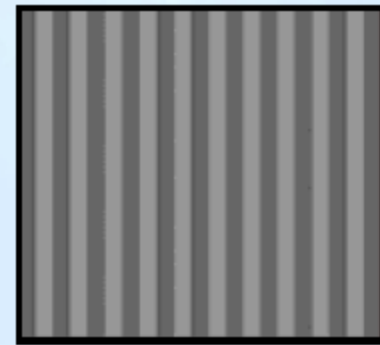
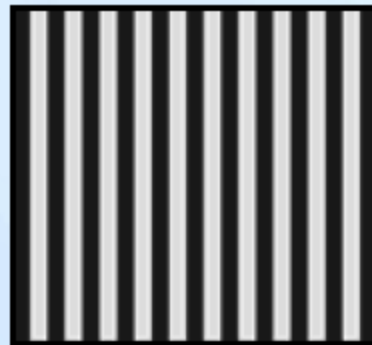
# Conclusions

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## Changes in Contrast Sensitivity

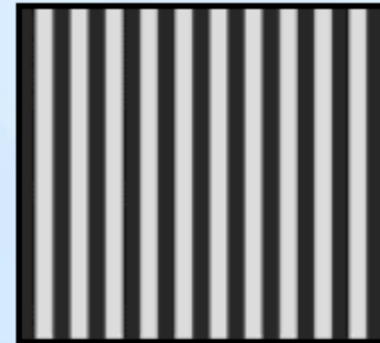
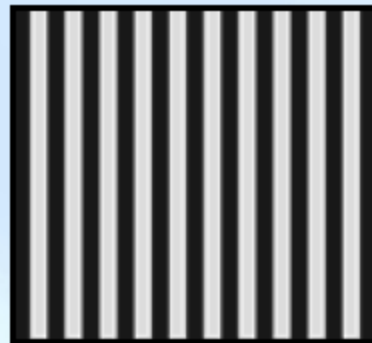
### Current Study

- 75% increase



### Richer et al. (2004)

- AMD patients
- 10mg/d lutein
- 12 months
- 13% increase



# Conclusions

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In sum:

- MPOD increased linearly across the retina in both the right and left eyes after a 12-week intervention with 16mg/d of zeaxanthin and 8mg/d of lutein
- Visual acuity, defined by contrast sensitivity, increased in both the right and left eyes following supplementation with lutein and zeaxanthin