

## **Macular Degeneration: A New Breed**

Robert Reed Jr., O.D.

1431 Trebor Rd.

St. Joseph, MI 49085

269-428-2268

bobreed@cpuinc.net

1 hr intermediate ABO / CPC approved

I. Course Description: It used to be Senile Macular Degeneration. Then it became Age Related Macular Degeneration. But in today's world everything is moving at an accelerated rate. So we're now dealing with just Macular Degeneration in people in their 20s. How the HECK did THAT happen? This class delves into the multi-factorial proliferation of Macular Degeneration. It's evaluation, diagnosis, and how we can deal with it before it reaches it's awful, (frightful), conclusion.

### II. Pre knowledge quiz

- 1) T or F Macular Degeneration means you can't be corrected to 20/20 by normal glasses?
- 2) T or F Standard testing for MD can be done with vision acuity, non-dilated retinal exam, and Amsler grid?
- 3) T or F Eye doctors are very accurate at detecting and diagnosing MD?
- 4) T or F The most important things for preventing MD are UV polarized sunglasses and a good diet?
- 5) What percentage of Americans have a "healthy lifestyle"
- 6) T or F People should take "Eye vitamins" instead of a general purpose multivitamin?
- 7) T or F All non-Rx brands of supplements are the same?
- 8) 25% of the average US person's vegetable intake is from \_\_\_\_\_?

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- 9) 65% of the US population gets their daily intake of antioxidants from \_\_\_\_\_?
- 10) The daily dose of Lutein we need is \_\_\_\_\_ and the average US daily intake is \_\_\_\_\_.

### III. It can't happen to me...can it?

#### A. Stats

- 1) What are the numbers of AMD now?
- 2) Projection of increase
- 3) Population aging stats

#### B. Recent study

- 1) AMD under-diagnosed
- 2) MDs/ODs equally 'inadequate'
- 3) AMD poorly defined
- 4) Methods of diagnosis inadequate

#### C. Anecdotal evidence

- 1) 1980 over 85 occasionally
- 2) 2010 over 50 often
- 3) 2017 under 30 multiple times
- 4) 2020
  - a) Everybody gets to play the MD game
  - b) Sleep disruption
  - c) Other health considerations
  - d) Connections with Alzheimer's

### IV. Newest Testing methods

#### A. The old ways don't cut it anymore

- 1) Vision acuity 20/20
- 2) Amsler grid
- 3) Direct viewing of retina

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- B. Contrast sensitivity
  - C. Retinal Photos
  - D. OCT
  - E. MPOD - measuring macular pigment (dashboard)
  - F. Maculogix - dark adaption/recovery time (3y)
  - G. Mapcat-SF/ Pentavision
  - H. Genetic testing - Arctic Dx
- V. Early stages of retinal degeneration
- A. Crispiness decrease (contrast sensitivity)
  - B. Night vision reduction
  - C. Color vision loss of intensity
  - D. Increased photophobia
  - E. Glare and flare increase (higher order aberrations)
- VI. Better understanding of cause factors
- A. Sun – It's worse than ever
  - B. Technology – HEV
  - C. New superlighting
  - D. Genetic disposition
  - E. Nutritional decline
  - F. Accelerated damage at earlier age
- VII. Preventive measures
- A. External
    - a. Photochromatics
    - b. HEV coatings
    - c. HEV lenses
    - d. Sunglasses
    - e. Cover-up

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### B Internal

- a. Dietary changes
- b. AREDS 1 v AREDS 2
- c. Eye complex supplements
- d. CBD oil

### VIII. Post knowledge quiz

- 1) T or F We now understand the effects of HEV light on vision and macular degeneration?
- 2) T or F Macular Degeneration only effects elderly?
- 3) T or F HEV blue light is 400nm – 500 nm zone?
- 4) T or F There are 3 types of photoreceptors?
- 5) T or F Blue light is a major cause of digital eye strain syndrome?
- 6) T or F The Inverse Square Law says that if you cut the work distance in half you get 4x more blue light?
- 7) T or F LED and CFLs emit light at 459-484nm which affect ipRGC function?
- 8) T or F All the many new lens products for HEV are about the same effectiveness?
- 9) T or F None of our eye supplement formulas can reduce the rate of macular degeneration?
- 10) T or F We shouldn't do anything about macular degeneration until we have a sure cure?