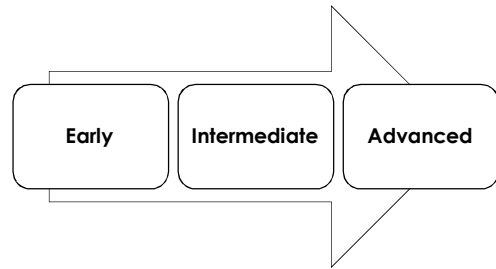


# FROM A TO ZINC FOR AMD

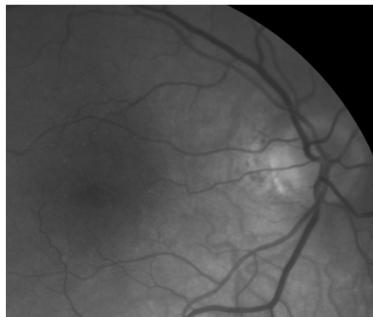
SPENCER D. JOHNSON, O.D., F.A.A.O.  
OKLAHOMA COLLEGE OF OPTOMETRY  
JOHNS137@NSUOK.EDU

## STAGES



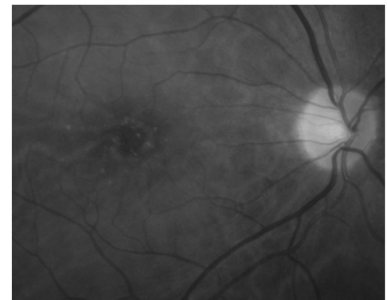
### EARLY

Medium drusen  
( $>63 \mu\text{m}$  but  $<125 \mu\text{m}$ )  
No AMD pigmentary abnormalities



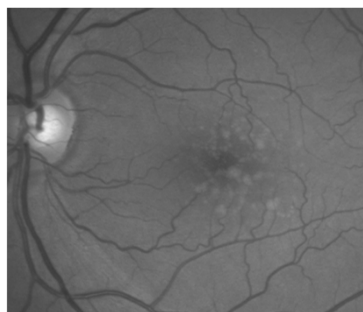
### EARLY

Medium drusen  
( $>63 \mu\text{m}$  but  $<125 \mu\text{m}$ )  
No AMD pigmentary abnormalities



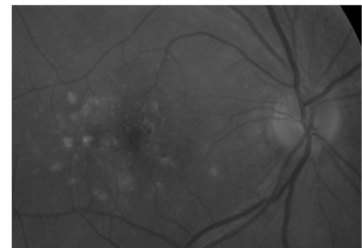
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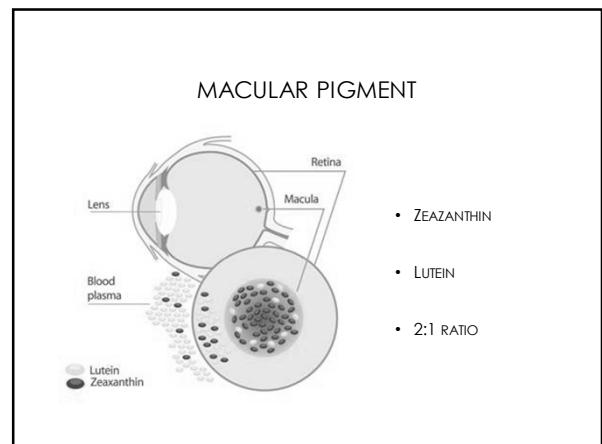
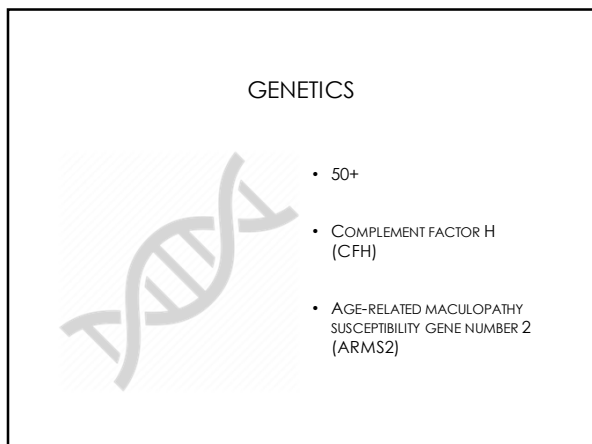
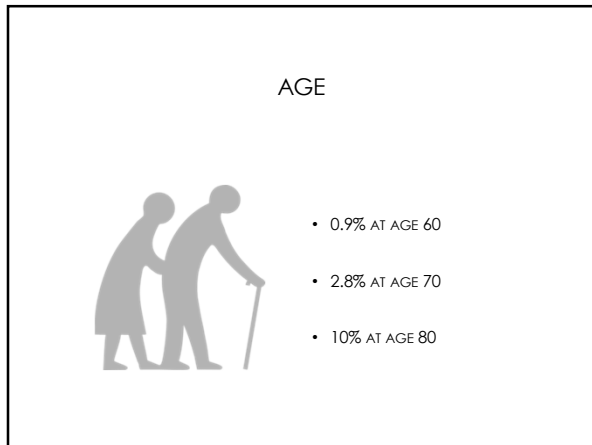
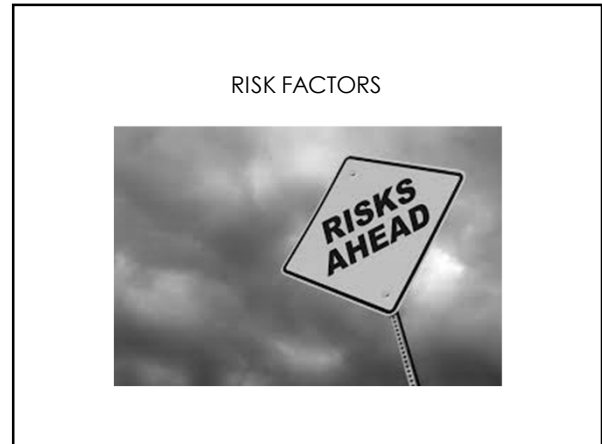
Large drusen  
( $>125 \mu\text{m}$ )  
Any AMD pigmentary abnormalities

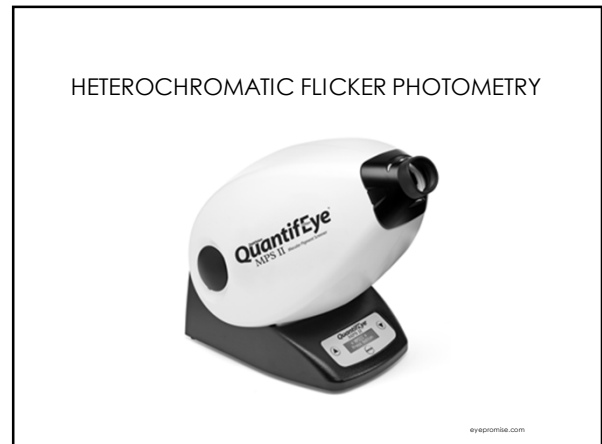
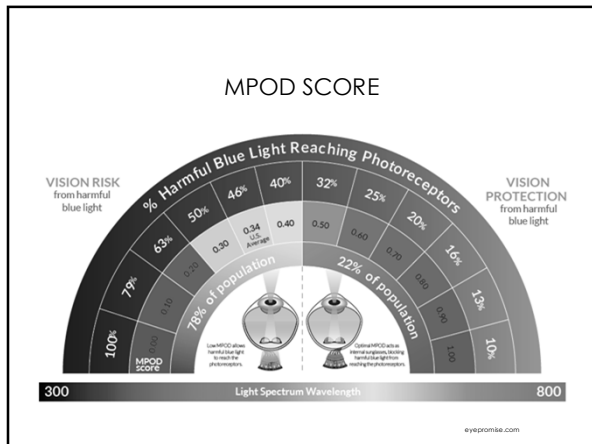


### INTERMEDIATE

Large drusen  
( $>125 \mu\text{m}$ )  
Any AMD pigmentary abnormalities







### SMOKING

- 2-3 X HIGHER RISK
- LENGTH OF ABSTINENCE

### LIFESTYLE

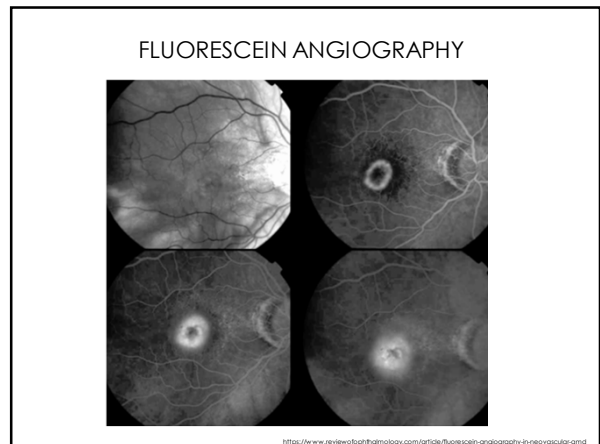
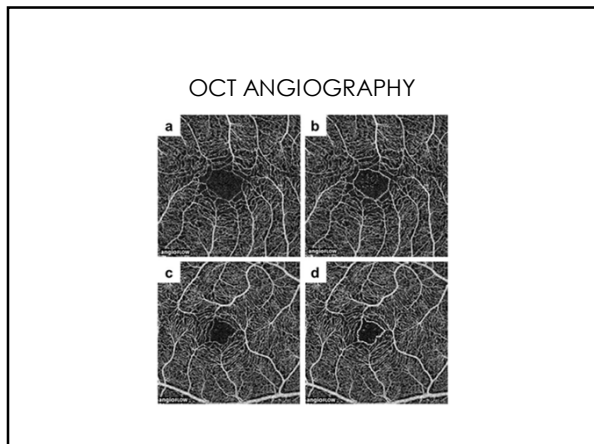
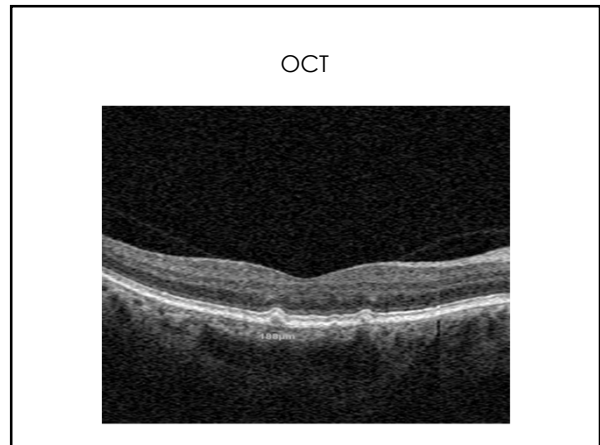
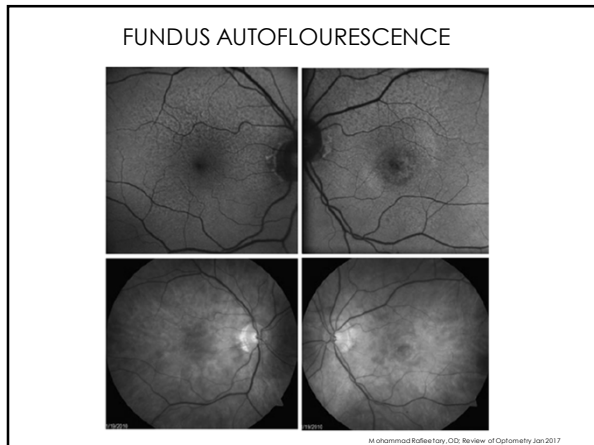
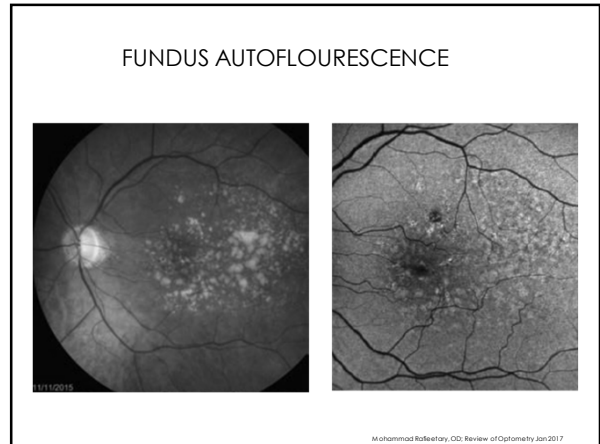
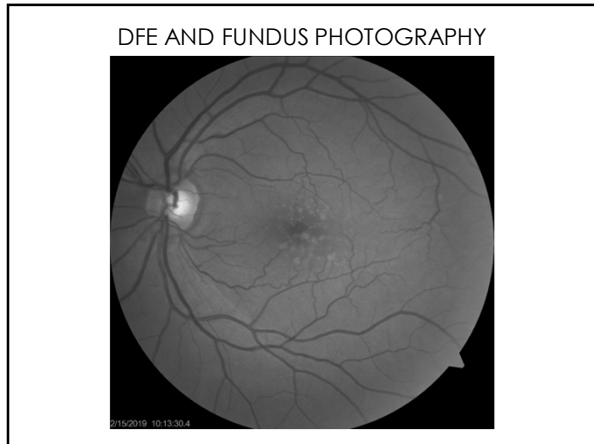
### OPHTHALMOLOGY, MARCH 2019

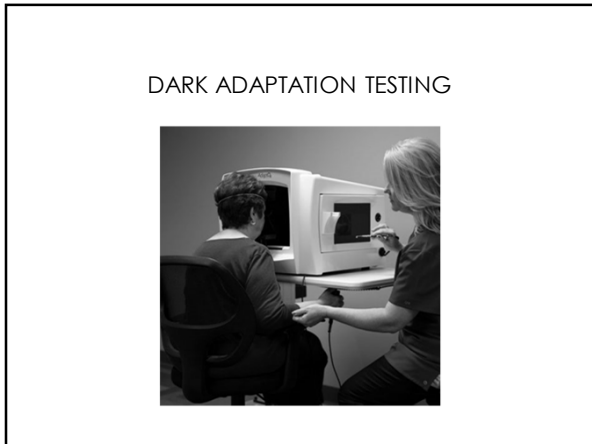
41%

### DIAGNOSIS AND MONITORING

STRUCTURE

FUNCTION



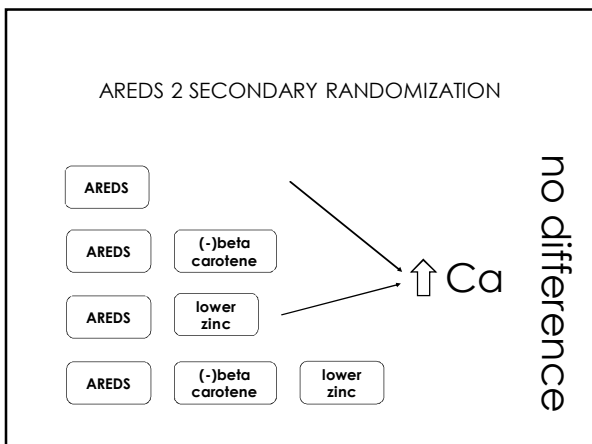


### AREDS

Antioxidants	23%	
Zinc	22%	
Antioxidants	Zinc	20%
Placebo	28%	

### AREDS 2

Lutein	Zeaxanthin	29%	
EPA + DHA		31%	
Lutein	Zeaxanthin	EPA + DHA	30%
Placebo			31%



### OMEGA-3 AND OMEGA-6 LAB TESTING

**Clinical Significance**

1. Baseline and monitoring of individuals with known CVD (acute and chronic) to determine Rx and compliance.
2. Identify patients with known CVD risk with low omega-3 levels who may be candidates for supplementation/therapy.
3. Monitor patients on omega-3 supplementation/therapy to determine efficacy of treatment.
4. Potential role in risk reduction for non-CVD outcomes: aged related macular degeneration, RA, cancer, etc. (early data).

**OMEGA QUANT**  
...because knowing matters

ABOUT US TESTS ▾ HOW IT WORKS BLOG SHOP CON

## Omega-3 Index...

Because knowing matters  
Starting at \$49.95

**PURCHASE**

What is the Omega-3 Index?

### OMEGA 3 AND 6 BLOOD TEST

OMEGA 3 AND 6 FATTY ACIDS		
OMEGA 3 (EPA+DHA) INDEX	3.4	1.4-8.9 %
Risk: Optimal > 3.2%; Moderate 2.2-3.2%; High < 2.2% Cardiovascular event risk category cut points for Omega3 Index (optimal, moderate, high) are based on quartiles of adult U.S. reference population. Association between Omega3 Index and cardiovascular events is based on Albert et al. <i>NEJM</i> . 2002;346:1133.		
RISK	Low	
The Omega-3 Index is associated with a low risk of cardiovascular disease because it is in the top population quartile. The Omega-3 Index categories are based on the top (75th percentile) and bottom (25th percentile) quartiles of the reference population. Consumption of foods high in omega-3 fatty acids (EPA and DHA) or supplements containing omega-3 fatty acids can increase the Omega-3 Index.  Index <2.2: High Index 2.2-3.2: Moderate Index >3.2: Optimal		
OMEGA 6/OMEGA 3 RATIO	6.6	5.7-21.3
EPA/ARACHIDONIC ACID RATIO	0.1	0.2 OR LESS
ARACHIDONIC ACID	6.5	5.2-12.9 %
EPA	0.7	0.2-1.5 %