

References - Preventive AMD Treatments

1. Meyers SM, Greene T, Gutman FA. A twin study of age-related macular degeneration. *Am J Ophthalmol* 1995;120(6):757-766.
2. Congdon N, O'Colmain B, Klaver CC, Klein R, Munoz B, Friedman DS, Kempen J, Taylor HR, Mitchell P. Causes and prevalence of visual impairment among adults in the United States. *Arch Ophthalmol* 2004;122(4):477-485.
3. Ferris FL, III, Fine SL, Hyman L. Age-related macular degeneration and blindness due to neovascular maculopathy. *Arch Ophthalmol* 1984;102(11):1640-1642.
4. Smith W, Assink J, Klein R, Mitchell P, Klaver CC, Klein BE, Hofman A, Jensen S, Wang JJ, de Jong PT. Risk factors for age-related macular degeneration: Pooled findings from three continents. *Ophthalmology* 2001;108(4):697-704.
5. Bird AC, Bressler NM, Bressler SB, Chisholm IH, Coscas G, Davis MD, de Jong PT, Klaver CC, Klein BE, Klein R. An international classification and grading system for age-related maculopathy and age-related macular degeneration. The International ARM Epidemiological Study Group. *Surv Ophthalmol* 1995;39(5):367-374.
6. Mitchell P, Smith W, Attebo K, Wang JJ. Prevalence of age-related maculopathy in Australia. The Blue Mountains Eye Study. *Ophthalmology* 1995;102(10):1450-1460.
7. VanNewkirk MR, Nanjan MB, Wang JJ, Mitchell P, Taylor HR, McCarty CA. The prevalence of age-related maculopathy: the visual impairment project. *Ophthalmology* 2000;107(8):1593-1600.
8. Tomany SC, Wang JJ, van Leeuwen R, Klein R, Mitchell P, Vingerling JR, Klein BE, Smith W, de Jong PT. Risk factors for incident age-related macular degeneration: pooled findings from 3 continents. *Ophthalmology* 2004;111(7):1280-1287.
9. The Age-Related Eye Disease Study Research Group. The Age-Related Eye Disease Study (AREDS): design implications. AREDS Report No. 1. *Control Clin Trials* 1999;20(6):573-600.
10. Ferris FL, Davis MD, Clemons TE, Lee LY, Chew EY, Lindblad AS, Milton RC, Bressler SB, Klein R, Age-Related Eye Disease Study (AREDS) Research Group. A Simplified Severity Scale for Age-Related Macular Degeneration: AREDS Report No. 18. *Arch Ophthalmol* 2005;123(11):1570-1574.
11. Age-Related Eye Disease Study Research Group. A randomized, placebo-controlled, clinical trial of high-dose supplementation with vitamins C and E, beta carotene, and zinc for age-related macular degeneration and vision loss: AREDS Report No. 8. *Arch Ophthalmol* 2001;119(10):1417-1436. Erratum in: *Arch Ophthalmol* 2008;126(9):1251.
12. The Alpha-Tocopherol, Beta Carotene Cancer Prevention Study Group. The effect of vitamin E and beta carotene on the incidence of lung cancer and other cancers in male smokers. *N Engl J Med* 1994;330(15):1029-1035.
13. Omenn GS, Goodman GE, Thornquist MD, Balmes J, Cullen MR, Glass A, Keogh JP, Meyskens FL, Valanis B, Williams JH, Barnhart S, Hammar S. Effects of a combination of beta carotene and vitamin A on lung cancer and cardiovascular disease. *N Engl J Med* 1996;334(18):1150-1155.
14. Age-Related Eye Disease Study 2 Research Group. Lutein + Zeaxanthin and Omega -3 Fatty Acids for Aged-Related Macular degeneration. The Age -Related Eye Disease Study 2 (AREDS2) Randomized Clinical Trial. *JAMA* 2013;309(19):2005-2015.
15. Bone RA, Landrum JT, Tarsis SL. Preliminary identification of the human macular pigment. *Vision Res* 1985;25(11):1531-1535.
16. Rapp LM, Maple SS, Choi JH. Lutein and zeaxanthin concentrations in rod outer segment membranes from perifoveal and peripheral human retina. *Invest Ophthalmol Vis Sci* 2000;41(5):1200-1209.
17. Snodderly DM, Handelman GJ, Adler AJ. Distribution of individual macular pigment carotenoids in central retina of macaque and squirrel monkeys. *Invest Ophthalmol Vis Sci* 1991;32(2):268-279.
18. Wisniewska A, Subczynski WK. Distribution of macular xanthophylls between domains in a model of

photoreceptor outer segment membranes. *Free Radic Biol Med* 2006;41(8):1257-1265.

19. Beatty S, Boulton M, Henson D, Koh HH, Murray IJ. Macular pigment and age related macular degeneration. *Br J Ophthalmol* 1999;83(7):867-877.
20. Landrum JT, Bone RA, Kilburn MD. The macular pigment: a possible role in protection from age-related macular degeneration. *Adv Pharmacol* 1997;38:537-556.
21. Johnson EJ, Hammond BR, Yeum KJ, Qin J, Wang XD, Castaneda C, Snodderly DM, Russell RM. Relation among serum and tissue concentrations of lutein and zeaxanthin and macular pigment density. *Am J Clin Nutr* 2000;71(6):1555-1562.
22. Eye Disease Case-Control Study Group. Antioxidant status and neovascular age-related macular degeneration. *Arch Ophthalmol* 1993;111(1):104-109. Erratum in: *Arch Ophthalmol* 1993;111(11):1499. *Arch Ophthalmol* 1993;111(9):1228. *Arch Ophthalmol* 1993;111(10):1366.
23. Seddon JM, Ajani UA, Sperduto RD, Hiller R, Blair N, Burton TC, Farber MD, Gragoudas ES, Haller J, Miller DT. Dietary carotenoids, vitamins A, C, and E, and advanced age-related macular degeneration. Eye Disease Case-Control Study Group. *JAMA* 1994;272(18):1413-1420. Erratum in: *JAMA* 1995;273(8):622.
24. Bernstein PS, Zhao DY, Wintch SW, Ermakov IV, McClane RW, Gellermann W. Resonance Raman measurement of macular carotenoids in normal subjects and in age-related macular degeneration patients. *Ophthalmology* 2002;109(10):1780-1787.
25. Delcourt C, Carriere I, Delage M, Barberger-Gateau P, Schalch W. Plasma lutein and zeaxanthin and other carotenoids as modifiable risk factors for age-related maculopathy and cataract: the POLA Study. *Invest Ophthalmol Vis Sci* 2006;47(6):2329-2335.
26. Moeller SM, Parekh N, Tinker L, Ritenbaugh C, Blodi B, Wallace RB, Mares JA. Associations between intermediate age-related macular degeneration and lutein and zeaxanthin in the Carotenoids in Age-related Eye Disease Study (CAREDS): ancillary study of the Women's Health Initiative. *Arch Ophthalmol* 2006;124(8):1151-1162.
27. SanGiovanni JP, Chew EY, Clemons TE, Ferris FL, III, Gensler G, Lindblad AS, Milton RC, Seddon JM, Sperduto RD. The relationship of dietary carotenoid and vitamin A, E, and C intake with age-related macular degeneration in a case-control study: AREDS Report No. 22. *Arch Ophthalmol* 2007;125(9):1225-1232.
28. Bartlett HE, Eperjesi F. Effect of lutein and antioxidant dietary supplementation on contrast sensitivity in age-related macular disease: a randomized controlled trial. *Eur J Clin Nutr* 2007;61(9):1121-1127.
29. Massacesi AL, Faletra R, Gerosa F, Staurenghi G, Orzalesi N. The effect of oral supplementation of macular carotenoids (lutein and zeaxanthin) on the prevention of age-related macular degeneration: A 18 months follow up study. ARVO. Fort Lauderdale, USA, April 29-May 4, 2001. *Invest Ophthalmol Vis Sci* 2001;42(4 Suppl.):S234.
30. Olmedilla B, Granado F, Blanco I, Vaquero M, Cajigal C. Lutein in patients with cataracts and age-related macular degeneration: a long-term supplementation study. *J Sci Food Agric* 2001;81(9):904-909.
31. Richer S. Part II: ARMD--pilot (case series) environmental intervention data. *J Am Optom Assoc* 1999;70(1):24-36.
32. Chong EW, Wong TY, Kreis AJ, Simpson JA, Guymer RH. Dietary antioxidants and primary prevention of age related macular degeneration: systematic review and meta-analysis. *BMJ* 2007;335(7623):755.
33. Richer S, Stiles W, Statkute L, Pulido J, Frankowski J, Rudy D, Pei K, Tsipursky M, Nyland J. Double-masked, placebo-controlled, randomized trial of lutein and antioxidant supplementation in the intervention of atrophic age-related macular degeneration: the Veterans LAST study (Lutein Antioxidant Supplementation Trial). *Optometry* 2004;75(4):216-230.
34. Neelam K, Hogg RE, Stevenson MR, Johnston E, Anderson R, Beatty S, Chakravarthy U. Carotenoids and co-antioxidants in age-related maculopathy: design and methods. *Ophthalmic Epidemiol* 2008;15(6):389-401.

35. Age-Related Eye Disease Study 2 (AREDS2) Research Group, Chew EY, Clemons TE, Sangiovanni JP, et al. Secondary Analyses of the effects of lutein /zeaxanthin on Age-Related Macular Degeneration Progression: AREDS2 report No. 3. *JAMA Ophthalmol* 2014;132(2):142-149.
36. Seddon JM, Hennekens CH. Vitamins, minerals, and macular degeneration. Promising but unproven hypotheses. *Arch Ophthalmol* 1994;112(2):176-179.
37. West S, Vitale S, Hallfrisch J, Munoz B, Muller D, Bressler S, Bressler NM. Are antioxidants or supplements protective for age-related macular degeneration? *Arch Ophthalmol* 1994;112(2):222-227.
38. VandenLangenberg GM, Mares-Perlman JA, Klein R, Klein BE, Brady WE, Palta M. Associations between antioxidant and zinc intake and the 5-year incidence of early age-related maculopathy in the Beaver Dam Eye Study. *Am J Epidemiol* 1998;148(2):204-214.
39. Clemons TE, Kurinij N, Sperduto RD. Associations of mortality with ocular disorders and an intervention of high-dose antioxidants and zinc in the Age-Related Eye Disease Study: AREDS Report No. 13. *Arch Ophthalmol* 2004;122(5):716-726.
40. Van Leeuwen R, Boekhoorn S, Vingerling JR, Witteman JC, Klaver CC, Hofman A, de Jong PT. Dietary intake of antioxidants and risk of age-related macular degeneration. *JAMA* 2005;294(24):3101-3107.
41. Evans J. Antioxidant supplements to prevent or slow down the progression of AMD: a systematic review and meta-analysis. *Eye (Lond)* 2008;22(6):751-760.
42. Cho E, Hung S, Willett WC, Spiegelman D, Rimm EB, Seddon JM, Colditz GA, Hankinson SE. Prospective study of dietary fat and the risk of age-related macular degeneration. *Am J Clin Nutr* 2001;73(2):209-218.
43. Arnarsson A, Sverrisson T, Stefansson E, Sigurdsson H, Sasaki H, Sasaki K, Jonasson F. Risk factors for five-year incident age-related macular degeneration: the Reykjavik Eye Study. *Am J Ophthalmol* 2006;142(3):419-428.
44. Chua B, Flood V, Rochtchina E, Wang JJ, Smith W, Mitchell P. Dietary fatty acids and the 5-year incidence of age-related maculopathy. *Arch Ophthalmol* 2006;124(7):981-986.
45. Seddon JM, Rosner B, Sperduto RD, Yannuzzi L, Haller JA, Blair NP, Willett W. Dietary fat and risk for advanced age-related macular degeneration. *Arch Ophthalmol* 2001;119(8):1191-1199.
46. Seddon JM, George S, Rosner B. Cigarette smoking, fish consumption, omega-3 fatty acid intake, and associations with age-related macular degeneration: the US Twin Study of Age-Related Macular Degeneration. *Arch Ophthalmol* 2006;124(7):995-1001.
47. SanGiovanni JP, Chew EY, Clemons TE, Davis MD, Ferris FL, III, Gensler GR, Kurinij N, Lindblad AS, Milton RC, Seddon JM, Sperduto RD. The relationship of dietary lipid intake and age-related macular degeneration in a case-control study: AREDS Report No. 20. *Arch Ophthalmol* 2007;125(5):671-679.
48. Mares-Perlman JA, Brady WE, Klein R, VandenLangenberg GM, Klein BE, Palta M. Dietary fat and age-related maculopathy. *Arch Ophthalmol* 1995;113(6):743-748.
49. Delcourt C, Carriere I, Cristol JP, Lacroux A, Gerber M. Dietary fat and the risk of age-related maculopathy: the POLANUT study. *Eur J Clin Nutr* 2007;61(11):1341-1344.
50. SanGiovanni JP, Chandra SR, Chew EY, Friberg TR, Klein ML, Kurinij N, Seddon JM. Dietary omega-3 long chain polyunsaturated fatty acids and risk for age-related macular degeneration. ARVO. Fort Lauderdale, USA, May 4-9, 2003. *Invest Ophthalmol Vis Sci* 2003;44(4 Suppl.):E-Abstract 2112.
51. SanGiovanni JP, Chew EY, Agron E, Clemons TE, Ferris FL, III, Gensler G, Lindblad AS, Milton RC, Seddon JM, Klein R, Sperduto RD. The relationship of dietary omega-3 long-chain polyunsaturated fatty acid intake with incident age-related macular degeneration: AREDS Report No. 23. *Arch Ophthalmol* 2008;126(9):1274-1279.
52. Souied E, Benlian P, Leveziel N, Zourdani A, Lablache-Combier M, Allaire C, Paccou B, Reynoird O, Carriere I, Coscas G, Delcourt C, Soubrane G. NAT-2. Report 1: High HDL and low PUFAs levels in exudative AMD patients. 112ème Congrès de la Société Française d'Ophtalmologie. Paris, France, 6-10 mai 2006. *J Fr Ophtalmol* 2006;29(HS 1):1S235.

53. Tan JS, Wang JJ, Flood V, Mitchell P. Dietary fatty acids and the 10-year incidence of age-related macular degeneration: the Blue Mountains Eye Study. *Arch Ophthalmol* 2009;127(5):656-665.
54. Chong EW, Robman LD, Simpson JA, Hodge AM, Aung KZ, Dolphin TK, English DR, Giles GG, Guymer RH. Fat consumption and its association with age-related macular degeneration. *Arch Ophthalmol* 2009;127(5):674-680.
55. SanGiovanni JP, Agron E, Clemons TE, Chew EY. Omega-3 long-chain polyunsaturated fatty acid intake inversely associated with 12-year progression to advanced age-related macular degeneration. *Arch Ophthalmol* 2009;127(1):110-112.
56. Awh CC, Lane AM, Hawken S, Zanke B, Kim IK. CFH and ARMS2 genetic polymorphisms predict response to antioxidants and zinc in patients with Age-Related Macular Degeneration. *Ophthalmology* 2013;120:2317-23.
57. Seddon JM, Silver RE, Rosner B. Response to AREDS supplements according to genetic factors. *Br J Ophthalmol* 2016;100(12):1731-1737.

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