References - Modifiable risk factors for AMD

1. Jager RD, Mieler WF, Miller JW. Age-related macular degeneration. N Engl J Med 2008; 358 (24): 2606-2617.

2. Thornton J, Edwards R, Mitchell P, Harrison RA, Buchan I, Kelly SP. Smoking and age-related macular degeneration: a review of association. Eye 2005; 19 (9): 935-944.

3. Chang MA, Bressler SB, Munoz B, West SK. Racial differences and other risk factors for incidence and progression of age-related macular degeneration: Salisbury Eye Evaluation (SEE) Project. Invest Ophthalmol Vis Sci 2008; 49 (6): 2395-2402.

4. Fraser-Bell S, Wu J, Klein R, Azen SP, Varma R. Smoking, alcohol intake, estrogen use, and age-related macular degeneration in Latinos: the Los Angeles Latino Eye Study. Am J Ophthalmol 2006; 141 (1): 79-87.

5. Kawasaki R, Wang JJ, Ji GJ, Taylor B, Oizumi T, Daimon M, Kato T, Kawata S, Kayama T, Tano Y, Mitchell P, Yamashita H, Wong TY. Prevalence and risk factors for age-related macular degeneration in an adult Japanese population: the Funagata study. Ophthalmology 2008; 115 (8): 1376-81, 1381.

6. Cackett P, Wong TY, Aung T, Saw SM, Tay WT, Rochtchina E, Mitchell P, Wang JJ. Smoking, cardiovascular risk factors, and age-related macular degeneration in Asians: the Singapore Malay Eye Study. Am J Ophthalmol 2008; 146 (6): 960-967.

7. Krishnaiah S, Das T, Nirmalan PK, Nutheti R, Shamanna BR, Rao GN, Thomas R. Risk factors for age-related macular degeneration: findings from the Andhra Pradesh eye disease study in South India. Invest Ophthalmol Vis Sci 2005; 46 (12): 4442-4449.

8. Delcourt C, Diaz JL, Ponton-Sanchez A, Papoz L. Smoking and age-related macular degeneration. The POLA Study. Pathologies Oculaires Liées a l'Age. Arch Ophthalmol 1998; 116 (8): 1031-1035.

9. Khan JC, Thurlby DA, Shahid H, Clayton DG, Yates JR, Bradley M, Moore AT, Bird AC. Smoking and age related macular degeneration: the number of pack years of cigarette smoking is a major determinant of risk for both geographic atrophy and choroidal neovascularisation. Br J Ophthalmol 2006; 90 (1): 75-80.

10. Vingerling JR, Hofman A, Grobbee DE, de Jong PT. Age-related macular degeneration and smoking. The Rotterdam Study. Arch Ophthalmol 1996; 114 (10): 1193-1196.

11. Seddon JM, Willett WC, Speizer FE, Hankinson SE. A prospective study of cigarette smoking and age-related macular degeneration in women. JAMA 1996; 276 (14): 1141-1146.

12. Klein R, Klein BE, Moss SE. Relation of smoking to the incidence of age-related maculopathy. The Beaver Dam Eye Study. Am J Epidemiol 1998; 147 (2): 103-110.

13. Chakravarthy U, Augood C, Bentham GC, de Jong PT, Rahu M, Seland J, Soubrane G, Tomazzoli L, Topouzis F, Vingerling JR, Vioque J, Young IS, Fletcher AE. Cigarette smoking and age-related macular degeneration in the EUREYE Study. Ophthalmology 2007; 114 (6): 1157-1163.

14. Smith W, Mitchell P, Leeder SR. Smoking and age-related maculopathy. The Blue Mountains Eye Study. Arch Ophthalmol 1996; 114 (12): 1518-1523.

15. Tan JS, Mitchell P, Kifley A, Flood V, Smith W, Wang JJ. Smoking and the long-term incidence of age-related macular degeneration: the Blue Mountains Eye Study. Arch Ophthalmol 2007; 125 (8): 1089-1095.

16. 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.

17. Mitchell P, Wang JJ, Smith W, Leeder SR. Smoking and the 5-year incidence of age-related maculopathy: the Blue Mountains Eye Study. Arch Ophthalmol 2002; 120 (10): 1357-1363.

18. Klein R, Klein BE, Tomany SC, Moss SE. Ten-year incidence of age-related maculopathy and smoking and drinking: the Beaver Dam Eye Study. Am J Epidemiol 2002; 156 (7): 589-598.

19. Francis PJ, George S, Schultz DW, Rosner B, Hamon S, Ott J, Weleber RG, Klein ML, Seddon JM. The LOC387715 gene, smoking, body mass index, environmental associations with advanced age-related macular degeneration. Hum Hered 2007; 63 (3-4): 212-218.

20. Seddon JM, George S, Rosner B, Klein ML. CFH gene variant, Y402H, and smoking, body mass index, environmental associations with advanced age-related macular degeneration. Hum Hered 2006; 61 (3): 157-165.

21. Schmidt S, Hauser MA, Scott WK, Postel EA, Agarwal A, Gallins P, Wong F, Chen YS, Spencer K, Schnetz-Boutaud N, Haines JL, Pericak-Vance MA. Cigarette smoking strongly modifies the association of LOC387715 and age-related macular degeneration. Am J Hum Genet 2006; 78 (5): 852-864.

22. Klein R. Overview of progress in the epidemiology of age-related macular degeneration. Ophthalmic Epidemiol 2007; 14 (4): 184-187.

23. Beatty S, Koh H, Phil M, Henson D, Boulton M. The role of oxidative stress in the pathogenesis of age-related macular degeneration. Surv Ophthalmol 2000; 45 (2): 115-134.

24. Chiu CJ, Taylor A. Nutritional antioxidants and age-related cataract and maculopathy. Exp Eye Res 2007; 84 (2): 229-245.

25. 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: 2008; 126 (9): 1251.

26. Birlouez-Aragon I, Delcourt C, Tessier F, Papoz L. Associations of age, smoking habits and diabetes with plasma vitamin C of elderly of the POLA study. Int J Vitam Nutr Res 2001; 71 (1): 53-59.

27. Fletcher AE, Bentham GC, Agnew M, Young IS, Augood C, Chakravarthy U, de Jong PT, Rahu M, Seland J, Soubrane G, Tomazzoli L, Topouzis F, Vingerling JR, Vioque J. Sunlight exposure, antioxidants, and age-related macular degeneration. Arch Ophthalmol 2008; 126 (10): 1396-1403.

28. Delcourt C, Cristol JP, Tessier F, Leger CL, Descomps B, Papoz L. Age-related macular degeneration and antioxidant status in the POLA study. POLA Study Group. Pathologies Oculaires Liees a l'Age. Arch Ophthalmol 1999; 117 (10): 1384-1390.

29. 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.

30. Whitehead AJ, Mares JA, Danis RP. Macular pigment: a review of current knowledge. Arch Ophthalmol 2006; 124 (7): 1038-1045. AMD.

31. Mares-Perlman JA, Brady WE, Klein R, Klein BE, Bowen P, Stacewicz-Sapuntzakis M, Palta M. Serum antioxidants and age-related macular degeneration in a population-based case-control study. Arch Ophthalmol 1995; 113 (12): 1518-1523.

32. Antioxidant status and neovascular age-related macular degeneration. Eye Disease Case-Control Study Group. 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.

33. Mares-Perlman JA, Fisher AI, Klein R, Palta M, Block G, Millen AE, Wright JD. Lutein and zeaxanthin in the diet and serum and their relation to age-related maculopathy in the third national health and nutrition examination survey. Am J Epidemiol 2001; 153 (5): 424-432.

34. Gale CR, Hall NF, Phillips DI, Martyn CN. Lutein and zeaxanthin status and risk of age-related macular degeneration. Invest Ophthalmol Vis Sci 2003; 44 (6): 2461-2465.

35. 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.

36. 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.

37. Cho E, Hankinson SE, Rosner B, Willett WC, Colditz GA. Prospective study of lutein/zeaxanthin intake and risk of age-related macular degeneration. Am J Clin Nutr 2008; 87 (6): 1837-1843.

38. Tan JS, Wang JJ, Flood V, Rochtchina E, Smith W, Mitchell P. Dietary antioxidants and the long-term incidence of age-related macular degeneration: the Blue Mountains Eye Study. Ophthalmology 2008; 115 (2): 334-341.

39. Wang L, Gaziano JM, Norkus EP, Buring JE, Sesso HD. Associations of plasma carotenoids with risk factors and biomarkers related to cardiovascular disease in middle-aged and older women. Am J Clin Nutr 2008; 88 (3): 747-754.

40. Gruber M, Chappell R, Millen A, LaRowe T, Moeller SM, Iannaccone A, Kritchevsky SB, Mares J. Correlates of serum lutein + zeaxanthin: findings from the Third National Health and Nutrition Examination Survey. J Nutr 2004; 134 (9): 2387-2394.

41. Arterburn LM, Hall EB, Oken H. Distribution, interconversion, and dose response of n-3 fatty acids in humans. Am J Clin Nutr 2006; 83 (6 Suppl): 1467S-1476S.

42. SanGiovanni JP, Chew EY. The role of omega-3 long-chain polyunsaturated fatty acids in health and disease of the retina. Prog Retin Eye Res 2005; 24 (1): 87-138.

43. 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.

44. 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.

45. 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.

46. 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.

47. Heuberger RA, Mares-Perlman JA, Klein R, Klein BE, Millen AE, Palta M. Relationship of dietary fat to age-related maculopathy in the Third National Health and Nutrition

Examination Survey. Arch Ophthalmol 2001; 119 (12): 1833-1838.

48. 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.

49. Augood C, Chakravarthy U, Young I, Vioque J, de Jong PT, Bentham G, Rahu M, Seland J, Soubrane G, Tomazzoli L, Topouzis F, Vingerling JR, Fletcher AE. Oily fish consumption, dietary docosahexaenoic acid and eicosapentaenoic acid intakes, and associations with neovascular age-related macular degeneration. Am J Clin Nutr 2008; 88 (2): 398-406.

50. 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.

51. 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.

52. 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.

53. Seddon JM, Cote J, Rosner B. Progression of age-related macular degeneration: association with dietary fat, transunsaturated fat, nuts, and fish intake. Arch Ophthalmol 2003; 121 (12): 1728-1737. Erratum in: Arch Ophthalmol 2004; 122 (3): 426.

54. Sangiovanni JP, Agrón E, Meleth AD, Reed GF, Sperduto RD, Clemons TE, Chew EY; Age-Related Eye Disease Study Research Group. {omega}-3 Long-chain polyunsaturated fatty acid intake and 12-y incidence of neovascular age-related macular degeneration and central geographic atrophy: AREDS report 30, a prospective cohort study from the Age-Related Eye Disease Study. Am J Clin Nutr 2009; 90 (6): 1601-1607.

55. Chong EW, Kreis AJ, Wong TY, Simpson JA, Guymer RH. Dietary omega-3 fatty acid and fish intake in the primary prevention of age-related macular degeneration: a systematic review and meta-analysis. Arch Ophthalmol 2008; 126 (6): 826-833.

56. Robman L, Vu H, Hodge A, Tikellis G, Dimitrov P, McCarty C, Guymer R. Dietary lutein, zeaxanthin, and fats and the progression of age-related macular degeneration. Can J Ophthalmol 2007; 42 (5): 720-726.

57. Parekh N, Voland RP, Moeller SM, Blodi BA, Ritenbaugh C, Chappell RJ, Wallace RB, Mares JA. Association between dietary fat intake and age-related macular degeneration in the Carotenoids in Age-Related Eye Disease Study (CAREDS): an ancillary study of the Women’s Health Initiative. Arch Ophthalmol 2009; 127 (11): 1483-1493.

58. Rochtchina E, Wang JJ, Flood VM, Mitchell P. Elevated serum homocysteine, low serum vitamin B12, folate, and age-related macular degeneration: the Blue Mountains

Eye Study. Am J Ophthalmol 2007; 143 (2): 344-346.

59. Kamburoglu G, Gumus K, Kadayifcilar S, Eldem B. Plasma homocysteine, vitamin B12 and folate levels in age-related macular degeneration. Graefes Arch Clin Exp Ophthalmol 2006; 244 (5): 565-569.

60. Nowak M, Swietochowska E, Wielkoszynski T, Marek B, Kos-Kudla B, Szapska B, Kajdaniuk D, Glogowska-Szelag J, Sieminska L, Ostrowska Z, Koziol H, Klimek J. Homocysteine, vitamin B12, and folic acid in age-related macular degeneration. Eur J Ophthalmol 2005; 15 (6): 764-767.

61. Axer-Siegel R, Bourla D, Ehrlich R, Dotan G, Benjamini Y, Gavendo S, Weinberger D, Sela BA. Association of neovascular age-related macular degeneration and hyperhomocysteinemia. Am J Ophthalmol 2004; 137 (1): 84-89.

62. Vine AK, Stader J, Branham K, Musch DC, Swaroop A. Biomarkers of cardiovascular disease as risk factors for age-related macular degeneration. Ophthalmology 2005; 112 (12): 2076-2080. 63. Seddon JM, Gensler G, Klein ML, Milton RC. Evaluation of plasma homocysteine and risk of age-related macular degeneration. Am J Ophthalmol 2006; 141 (1): 201-203.

64. Christen WG, Glynn RJ, Chew EY, Albert CM, Manson JE. Folic acid, pyridoxine, and cyanocobalamin combination treatment and age-related macular degeneration in women: the Women’s Antioxidant and Folic Acid Cardiovascular Study. Arch Intern Med 2009; 169 (4): 335-341.

65. Parekh N, Chappell RJ, Millen AE, Albert DM, Mares JA. Association between vitamin D and age-related macular degeneration in the Third National Health and Nutrition Examination Survey, 1988 through 1994. Arch Ophthalmol 2007; 125 (5): 661-669.

66. Algvere PV, Marshall J, Seregard S. Age-related maculopathy and the impact of blue light hazard. Acta Ophthalmol Scand 2006;

84 (1): 4-15. 67. Taylor HR, West S, Muñoz B, Rosenthal FS, Bressler SB, Bressler NM. The long-term effects of visible light on the eye. Arch Ophthalmol 1992; 110 (1): 99-104. 68. Cruickshanks KJ, Klein R, Klein BE. Sunlight and age-related macular degeneration. The Beaver Dam Eye Study. Arch Ophthalmol 1993; 111 (4): 514-518.

69. Tomany SC, Cruickshanks KJ, Klein R, Klein BE, Knudtson MD. Sunlight and the 10-year incidence of age-related maculopathy: the Beaver Dam Eye Study. Arch Ophthalmol 2004; 122 (5): 750-757.

70. [No authors listed]. Risk factors for neovascular age-related macular degeneration. The Eye Disease Case-Control Study Group. Arch Ophthalmol 1992; 110 (12): 1701-1708.

71. McCarty CA, Mukesh BN, Fu CL, Mitchell P, Wang JJ, Taylor HR72. Risk factors for age-related maculopathy: the Visual Impairment Project. Arch Ophthalmol 2001; 119 (10):

1455-1462.

72. Delcourt C, Carriere I, Ponton-Sanchez A, Fourrey S, Lacroux A, Papoz L. Light exposure and the risk of age-related macular degeneration: the Pathologies Oculaires Liées a l'Age (POLA) study. Arch Ophthalmol 2001; 119 (10): 1463-1468.

73. Darzins P, Mitchell P, Heller RF. Sun exposure and age-related macular degeneration. An Australian case-control study. Ophthalmology 1997; 104 (5): 770-776.

74. Pham TQ, Rochtchina E, Mitchell P, Smith W, Wang JJ. Sunlight-related factors and the 10-year incidence of age-related maculopathy. Ophthalmic Epidemiol 2009; 16 (2): 136-141.

75. Pollack A, Marcovich A, Bukelman A, Oliver M. Age-related macular degeneration after extracapsular cataract extraction with intraocular lens implantation. Ophthalmology 1996; 103 (10): 1546-1554.

76. Ho L, Boekhoorn SS, Liana, van Duijn CM, Uitterlinden AG, Hofman A, de Jong PT, Stijnen T, Vingerling JR. Cataract surgery and the risk of aging macula disorder: the rotterdam study. Invest Ophthalmol Vis Sci 2008; 49 (11): 4795-800.

77. Kaiserman I, Kaiserman N, Elhayany A, Vinker S. Cataract surgery is associated with a higher rate of photodynamic therapy for age-related macular degeneration. Ophthalmology. 2007; 114 (2): 278-282.

78. Cugati S, Mitchell P, Rochtchina E, Tan AG, Smith W, Wang JJ. Cataract surgery and the 10-year incidence of age-related maculopathy: the Blue Mountains Eye Study. Ophthalmology 2006; 113 (11): 2020-2025.

79. Wang JJ, Klein R, Smith W, Klein BE, Tomany S, Mitchell P. Cataract surgery and the 5-year incidence of late-stage age-related maculopathy: pooled findings from the Beaver Dam and Blue Mountains eye studies. Ophthalmology 2003; 110 (10): 1960-1967.

80. Klein R, Klein BE, Wong TY, Tomany SC, Cruickshanks KJ. The association of cataract and cataract surgery with the long-term incidence of age-related maculopathy: the Beaver Dam eye study. Arch Ophthalmol 2002; 120 (11): 1551-1558.

81. Pham TQ, Cugati S, Rochtchina E, Mitchell P, Maloof A, Wang JJ. Early age-related maculopathy in eyes after cataract surgery. Eye 2007; 21 (4): 512-517.

82. Sutter FK, Menghini M, Barthelmes D, Fleischhauer JC, Kurz-Levin MM, Bosch MM, Helbig H. Is pseudophakia a risk factor for neovascular age-related macular degeneration? Invest Ophthalmol Vis Sci 2007;48 (4): 1472-1475.

83. Chew EY, Sperduto RD, Milton RC, Clemons TE, Gensler GR, Bressler SB, Klein R, Klein BE, Ferris FL, III. Risk of advanced age-related macular degeneration after cataract surgery in the Age-Related Eye Disease Study: AREDS report 25. Ophthalmology 2009;

116 (2): 297-303.

84. Braunstein RE, Sparrow JR. A blue-blocking intraocular lens should be used in cataract surgery. Arch Ophthalmol 2005; 123(4): 547-549.

85. Delcourt C, Korobelnik JF, Barberger Gateau P, et al. Nutrition and age-related eye diseases : the ALIENOR (Antioxydants, Lipides Essentiels, Nutrition et maladies Oculaires) Study. Journal Nutr Health Aging. 2010; (in press).

View PDF