Reference:

Dietary Fatty Acids and the 5-Year Incidence of Age-Related Maculopathy


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Summary:

Age-related maculopathy (ARM) or AMD (age-related macula degeneration) is a very common cause of severe visual impairment and vision loss in elderly populations. This newly-published study from Australia evaluated the development of common eye diseases in non-institutionalized residents (age 49 years or older) over a follow-up period of five years. Of the 3654 persons who were followed in this population-based study, 7% and 1% developed early and late ARM, respectively. Interestingly, a higher intake of total dietary fat as well as consuming three servings of fish per week appeared to protect against the development of both early and late ARM in this older Australian population. Furthermore, participants with the highest intake (upper 20% of the population) of omega-3 fatty acids from all sources exhibited a 40-50% lower risk of developing ARM as compared to those in the lowest quintile (lower 20% level of intake). The authors suggest that diets high in omega-3 fatty acids, notably DHA (docosahexaenoic acid) derived largely from fish, may protect against oxidative and degenerative processes within the retina of the eye. They indicated that this present study supports a previous finding that regular intakes of fish protect against the development of both early and late ARM.

Dr. Holub's Comments:

This important study raises the possibility that a significant number of cases of macular degeneration found with increased frequency in our aging populations may possibly be delayed or preventable with higher intakes of fish and omega-3 fatty acids. Added to the potential
mechanisms suggested by the authors, inflammatory processes have been implicated in ARM which could be favorably modified by increased intakes of DHA/EPA from fish and other sources (functional foods and supplements) since such effects of DHA/EPA have been demonstrated in other studies and pathophysiological conditions. Future randomized controlled trials with DHA/EPA will be of interest to support possible future recommendations by health professionals for increasing the consumption of such omega-3 fatty acids (from fish and other sources) to reduce the rising prevalence of ARM in our aging populations resulting in part from improved life expectancies.