Omega-3 fatty acid intake linked with reduced risk of age-related macular degeneration in women

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Regular consumption of fish and omega-3 fatty acids found in fish is associated with a significantly reduced risk of developing age-related macular degeneration in women, according to a report posted online today that will appear in the June issue of *Archives of Ophthalmology*.

"An estimated nine million U.S. adults aged 40 years and older show signs of age-related macular degeneration (AMD)," the authors write as background information in the article. "An additional 7.3 million persons have early age-related macular degeneration, which is usually associated with moderate or no vision loss but does increase the risk of progression to advanced age-related macular degeneration."

Using the Women's Health Study, William G. Christen, Sc.D., of Brigham and Women's Hospital and Harvard Medical School, Boston, and colleagues collected data on 38,022 women who had not been diagnosed with age-related macular degeneration. Information on women's eating habits was obtained via questionnaire at the beginning of the study and included information on intake of docosahexaenoic acid (DHA) and eicosapentaenoic acid (EPA) [Omega-3 fatty acids found in fish], and arachidonic acid and linoleic acid (omega-6 fatty acids). During ten years of follow-up, additional questionnaires tracked the women's eye health, with specific focus on diagnosis of age-related macular degeneration.

Over the course of follow-up, 235 cases of age-related macular degeneration were reported. In analyses that adjusted for age and treatment assignment, women who consumed the most DHA compared with women who consumed the lowest amount had a 38 percent lower risk of developing age-related macular degeneration. Similar results were observed for higher intake of EPA and for higher consumption of both types of acid together.

Results for fish intake showed that consumption of one or more servings of fish per week, when compared to less than one per month, was associated with a 42 percent lower risk of age-related macular degeneration. "This lower risk appeared to be due primarily to consumption of canned tuna fish and dark-meat fish."

For omega-6 fatty acids, higher intake of linoleic acid but not arachidonic acid was associated with an increased risk of age-related macular degeneration, however this association was non-significant after adjustment for other risk factors and fats.

"In summary, these prospective data from a large population of women with no prior diagnosis of AMD indicate that regular consumption of DHA and EPA and fish significantly reduced the risk of incident AMD," the authors conclude.

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