

**NEWS &
OPINION**

Food to fight cataracts

by Maxine Lipner Senior EyeWorld Contributing Editor

Poor eating habits linked to higher risk

A healthy diet may help to stave off nuclear cataracts, and people with the poorest eating habits have a 1 1/2 times higher risk for developing such cataracts, according to Julie A. Mares, Ph.D., professor of nutrition, School of Public Health and Medicine, University of Wisconsin, Madison, Wisc. In the June 2010 issue of Archives of Ophthalmology, investigators reported on results gleaned from a sample of participants who were initially assessed as part of the Women's Health Initiative Observational Study.



Diet and cataracts have long been considered interwoven. "Many previous studies have found that the dietary intake of single nutrients or single plant components is associated with lower risk for cataract," Dr. Mares said. "What was different about this study was that we looked at an overall healthy diet." Participants' diets were scored based on how they adhered to the current U.S. dietary guidelines.

Dietary connection

Approximately 1,800 women were included in the study. "There were participants previously in the Woman's Health Initiative," Dr. Mares said. "As part of that study they provided us extensive information about their diet and also other lifestyle and health behaviors that we could adjust for in the study."

Six years after the completion of the Women's Health Initiative, investigators invited women from three of the 40 nationwide sites, Wisconsin, Iowa, and Oregon, to return for eye photographs. "We were able to assess not only whether or not they had cataract but also the level of density of their lens," Dr. Mares said. For the study, investigators used dietary information collected during the initial Women's Health Initiative Study. Dr. Mares pointed out that this was collected long before most knew that they had a cataract or other diseases that may have changed the way they ate.

When investigators assessed the dietary information, 4-7 years after it was initially collected, they found a strong connection. "We found that 20% of women whose diets scored lowest had a 1 1/2 times higher risk for having a nuclear cataract or having had a cataract extraction compared with women at the same age and adjusting for all the other factors that could explain the results," Dr. Mares said. "We found that diet was the most important modifiable factor."

Those who scored the highest had the greatest intake of fruit and vegetables. "We think that this reflects, to some extent, the fact that high fruit and vegetable intake is the source of higher intake of lutein," Dr. Mares said. "Lutein might be particularly important to eye health because it accumulates in the eye much more exclusively than in other parts of the body." She points out that there is also evidence that lutein can protect against light damage in the lens.

Vitamin C may also play some role here. In addition, Dr. Mares thinks that there are likely other unknown nutrients at play as well. "We think that it's partly vitamin C and it's partly lutein," she said. "But when we adjust for these factors we still see that fruits and vegetables are going in the protective direction, so we suspect that it's a wide variety of known and unknown nutrients."

In addition, investigators found that what was consumed was important. "A second broad area of diet associated with higher risk was higher fat intake," Dr. Mares said. She stressed that this is not something that can be remedied by eating low fat substitutes. Instead, she sees such foods as unfortunately taking the place of healthy alternatives that pack a much greater nutritional punch.

One surprise in the study was that taking multivitamin supplements wasn't associated with lower risks, as many studies have previously found. Dr. Mares thinks that it is possible that in these previous studies, taking multivitamins was a marker for being health conscious in other ways as well. "This was a good sample to test that out," she said. "People were a little bit more health conscious than Americans as a whole."

Broader connections

While this particular study was confined to women, Dr. Mares sees no reason why the findings here wouldn't be applicable to men. "When we studied men in our Wisconsin community more than a decade ago we found that intake of green vegetables, for example, was more highly associated with lower cataracts in men than in women," she said. "In general men have diets that are less nutrient dense than women so it might apply even more to men."

Overall, Dr. Mares sees this study as another example of data that suggests the importance of eating well for health. "I think that the eyes are often a window to the rest of the body," she said. "Because people care so much about whether they see well, optometrists and ophthalmologists are in a position to influence people's health that affects other parts of their body." She also sees eating well as potentially important for lowering health costs linked to cataract care. Dr. Mares points out that because it is so common, cataract surgery is a major healthcare cost. "A couple of decades ago, Carl Kupfer [M.D.], [former] head of the National Eye Institute [Bethesda, Md.], estimated that if we could slow cataracts by 10 years we could cut the number of cataract surgeries in half," she said. "Because baby boomers are aging, the impact of things like cataract surgery on healthcare costs will be even greater." Healthy eating is something that everyone can be empowered to do, with a potentially large impact on healthcare costs, she stressed.

Editors' note: *Dr. Mares has no financial interests related to her comments.*

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