Long-term vitamin C consumption lowers early-onset cataract incidence

The March 2002 issue of the American Journal of Clinical Nutrition was the site of the publication of a report showing that long-term consumption of ascorbic acid, or vitamin C, prevented the formation of cortical and posterior subcapsular cataracts in women under 60. Cortical cataracts are a type of cataract involving the inner and outer cortical tissue of the cortex of the lens, while posterior subcapsular opacities are found in the lens' outmost layers. Nuclear cataracts form in the central zone of the lens.

The study examined the eyes of 492 non-diabetic participants enrolled in the Nurse's Health Study cohort, whose diet and health information has been tracked since 1976. The women had completed food frequency questionnaires every other year for the past 13 to 15 years, which detailed diet and nutritional supplement intake. Women 60 years of age and younger had a 57% lower risk of developing a cortical cataract if the amount of vitamin C consumed per day was greater than or equal to 362 milligrams, compared to those whose intake of the vitamin was 140 milligrams per day or less. Ten years or more of vitamin C supplementation provided a 60% lower risk than no use of the supplements. For posterior subcapsular cataracts, risk of their development was inversely related to folate, alpha-carotene, beta-carotene and total carotenoid intake in nonsmokers.

The researchers believe that the results of the study contribute to the evidence that antioxidants can alter the rates of development of these age-related lens opacities, and note that smoking diminishes their benefits.

—Dayna Dye