

Preliminary study links melanoma with citrus consumption

By ACSH Staff — June 30, 2015



Dr. Abrar Queshi from the Warren Alpert Medical School of

Brown University examined data from the Nurses Health Study and the Health Professionals Follow-Up Study in collaboration with colleagues from Brigham and Women's Hospital in Boston. These are prospective studies, that followed 63,000 women and 41,000 men respectively, asking questions about their health and their food consumption. Every 2 to 4 years, the participants completed questionnaires about their food consumption patterns and their health. Any reports of melanoma were confirmed by medical records.

The investigators [found](#) ^[1] significant associations between the occurrence of melanoma and consumption of citrus fruits and citrus juices particularly oranges and grapefruit. But the associations were rather small for example, people who ate citrus 2 to 4 times per week had a ten percent increased risk of melanoma, compared to those who ate citrus less than twice per week. There was also a significant trend, with increasing risk as citrus consumption rose so that those eating citrus more than 1.6 times per day had a 36 percent greater melanoma risk compared to those eating them less than twice per week.

The authors of the report suggested a possible mechanism for their results citrus fruits contain a family of compounds called furocoumarins, which can increase an individual's sun sensitivity and make them more prone to damage from the sun. However, this is a hypothesis that is by no means substantiated by solid data.

In an accompanying [editorial](#) ^[2], Dr. Marianne Berwick from the University of New Mexico evaluates the data. She notes that although the study was large, the rationale was clear, and the data were collected prospectively, it can not be considered to be definitive. Also, she writes that this is the only study to thus far have demonstrated a link between melanoma and citrus consumption, and other, smaller studies have actually found that vitamin C (found abundantly in citrus) is protective against melanoma. In addition, she said that elimination of people with histories of non-melanoma skin cancers were excluded from the trial, and this exclusion may have introduced bias in the results.

In summary: There is clearly a need for replication of the study findings in a different population before modifying current dietary advice to the public.

Dr. Ruth Kava, ACSH s Senior Fellow in Nutrition, agrees with Dr. Berwick certainly no such observational study can be deemed definitive and adds, As we ve recently [written](#) [3], the validity of dietary recalls has been roundly criticized. Thus before anyone changes their intake of citrus, which provide numerous valuable nutrients, they should await the confirmation of these results by independent investigators.

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[1] <http://jco.ascopubs.org/content/early/2015/06/24/JCO.2014.57.4111.abstract?sid=18dae3af-b0ad-4caf-bff7-cf21836266e3>

[2] <http://jco.ascopubs.org/content/early/2015/06/24/JCO.2015.61.8116>

[3] <http://acsh.org/2015/06/memory-based-dietary-information-leads-to-inaccurate-guidelines/>