**Hot Peppers May Be the Spice of (Long) Life and Healthy Heart**

Eating more chili peppers is linked to lower risk of dying, researchers found in a Mediterranean cohort study. People who ate chili peppers regularly had less mortality over a median 8.2 years compared to peers who didn't eat them or only rarely did so. This was observed after adjustment for age, sex, and caloric intake:

* All-cause mortality: HR 0.77 (95% CI 0.66-0.90)
* Cardiovascular disease (CVD) mortality: HR 0.66 (95% CI 0.50-0.86)
* Ischemic heart disease mortality: HR 0.56 (95% CI 0.35-0.87)
* Cerebrovascular death: HR 0.39 (95% 0.20-0.75)

The lower risk of total and CVD death was independent of CVD risk factors or adherence to a Mediterranean diet in the large adult Mediterranean population studied. The researchers said this supports "the notion that minor dietary changes, such as adding chilies to usual diet, could be valuable measures for improving health, especially cardiovascular health, independent of overall diet quality."

The prospective Moli-sani Study had 22,811 men and women randomly recruited from Molise, Italy. Mortality data were retrieved from an Italian mortality registry and validated by death certificates. Participants had their chili pepper intake estimated by a food frequency questionnaire, with regular consumption defined as four times a week or more.

Overall, the findings of the Mediterranean cohort study showed a greater risk reduction attributed to chili peppers than reported before: a [Chinese study](https://www.bmj.com/content/351/bmj.h3942) from 2015 reported that eating spicy food almost daily was associated with a 14% reduction of total mortality and a 22% reduction of death from ischemic heart disease. Similarly, there was a 13% drop in total mortality associated with hot chili pepper consumption in a [2017 analysis](https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0169876) of the U.S. National Health and Nutrition Examination Survey.

"Health benefits of chili peppers have been ascribed to capsaicin, its major pungent compound, which has been observed to favorably improve cardiovascular function and metabolic regulation in experimental and population studies. In addition to its anti-inflammatory and analgesic properties and atheroprotective effects, capsaicin reportedly induces apoptosis of the tumor cells," the authors noted.

However, none of the biological mechanisms they tested were able to explain the health benefits associated with chilies. "Established biomarkers of CVD did not substantially modify the relation between chili pepper and mortality, although a marginal role was played by serum [vitamin D levels](https://www.medpagetoday.com/cardiology/prevention/80632) and biomarkers of lipid metabolism, explaining 6.1% and 5.3% of the association with all-cause mortality, respectively," the authors wrote.

On the other hand, hypertension did interact with the relationship such that the purported survival benefit of chili peppers appeared stronger in people without high blood pressure (*P*=0.021 for interaction).

The observational nature of the study meant the investigators could not draw causal conclusions from their results and that the data may be subject to residual confounding despite statistical adjustment.

Source Reference: [Bonaccio M, et al "Chili pepper consumption and mortality in Italian adults" J Am Coll Cardiol 2019; DOI: 10.1016/j.jacc.2019.09.068.](http://www.onlinejacc.org/)