› Adv Nutr. 2020 Mar 1;11(2):237-250. doi: 10.1093/advances/nmz085.

Dried Fruit Intake and Cancer: A Systematic Review of Observational Studies

Valeri V Mossine [1], Thomas P Mawhinney [1 2], Edward L Giovannucci [3 4 5]

Affiliations + expand

PMID: 31504082 DOI: 10.1093/advances/nmz085

Abstract

Insufficient intake of total fruits and vegetables is linked to an increased cancer risk, but the relation is not understood for dried fruits. Dried fruits are generally perceived, by both consumers and researchers, as a less attractive but shelf-stable equivalent to fresh fruits and constitute a small but significant proportion of modern diets. Chemical compositions of raw and dried fruits, however, may differ substantially. Several clinical and laboratory intervention studies have reported the protective effects of dehydrated fruits against the progression of some cancers and the modulating effects of dried fruits on common cancer risk factors. In this systematic review, we identified, summarized, and critically evaluated 9 prospective cohort and 7 case-control studies that examined the relations between traditional dried fruit (raisins, prunes, dates) consumption and cancer risk in humans. Prospective cohort studies determined that significant reductions in relative risk of precancerous colorectal polyps, incidence of prostate cancer, or mortality from pancreatic cancer, by, respectively, 24%, 49%, and 65%, were associated with 3-5 or more servings of dried fruits per week. Selected case-control studies revealed inverse associations between dried fruit intake and risk of cancer as well. The reported associations were comparable to or stronger than those observed for total or raw fruits. Although the small number and high heterogeneity impede meta-analysis of these studies, we conclude that currently available data provide some initial evidence that consumption of dried fruits may be associated with a lower cancer incidence or mortality in populations. The data suggest that higher intake of raisins and other dried fruits may be important in the prevention of cancers of the digestive system. Because only a limited number of health outcome and dried fruit intake relations have been evaluated in prospective studies to date, reanalyzing existing high-quality epidemiological data may expand the knowledge base.

Keywords: cancer risk; date palm fruits; epidemiology; nutrition; prunes; raisins.