

Issue 61

In a nutshell

Epidemiological evidence links nut consumption to lesser risk of heart disease and overall mortality.

This may well be because many nuts are a rich source of monounsaturated and polyunsaturated fatty acids.

Advice to avoid eating nuts on the grounds of their fat content needs to be reconsidered.

Nuts and heart disease

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NUTRITION RESEARCH REVIEW

Study one: Nuts and heart disease in women

Regular consumption of nuts is associated with a one third decrease in the risk of major coronary disease events in adult women. This was the finding of the latest outcome from the Nurses Health study conducted from Boston, USA.

Subjects: More than 86,000 women aged 34-59 years of age. None of them whom had known coronary heart disease, stroke, or cancer when the study began in 1980.

Method: A prospective cohort study, in which dietary intake at the beginning was assessed by questionnaire administered at onset, and again 4, 6 and 10 years later. Follow-up continued for 14 years.

Results: Frequent nut consumers (weekly consumption of equivalent of at least 5 oz of nuts) had a relative risk of total coronary heart disease = 0.65 (95% confidence interval 0.47-0.89, $p=0.0009$) compared with those who ate nuts less than 1 oz/month.

This benefit was seen after controlling or stratifying for age, exercise, body mass index, smoking, and other dietary factors linked with heart disease (such as intake of dietary fats, fibre, vegetables, fruits, alcohol, multivitamin and vitamin E supplements).

The benefit was also seen in relation to both fatal and non-fatal coronary heart disease:

| | | |
|--------------|---------------------|------------|
| Fatal CHD | 0.61 (CI 0.35-1.05) | $p=0.007$ |
| Non-fatal MI | 0.68 (0.47-1.00) | $p=0.04$. |

Ref: *BMJ* 1998;317:1341-1345

Study two: Nuts and the elderly

Subjects: White Seventh-Day Adventists from California involved in a total of 11,828 person-years of follow-up over 12 years.

Method: A cohort study with follow-up of mortality from 1976 until 1988.

Results: Frequent nut consumption was associated with a reduction in mortality, and a greater specific reduction in heart disease-related mortality. See Table.

Ref: *Arch Intern Med* 1997;157:2249-58

Table: Risk ratios for total death and death from coronary heart disease
(men and women combined)

| | RR | 95% CI | Signif. |
|------------------------|------|-------------|-------------|
| Exercise | | | |
| Total mortality | 0.80 | (0.70-0.91) | $p < 0.001$ |
| CVS mortality | 0.74 | (0.56-0.97) | $p < 0.05$ |
| Nut consumption | | | |
| Total mortality | 0.82 | (0.70-0.96) | $p < 0.01$ |
| CVS mortality | 0.61 | (0.45-0.83) | $p < 0.001$ |

Comments

Both these epidemiological studies, whilst they lack the power of a randomised control trial, provide powerful evidence of some association between nut consumption and health, particularly cardiovascular health.

The question of course is what sort of association? People who consume nuts are taking in a complex food, one that has monounsaturated and polyunsaturated fatty acids in various combinations, depending on the type of nut. For example, walnuts are rich in high in and alpha-linolenic acid. Nuts are also a source of protein, fibre, magnesium and vitamin E, as well as potassium.

Whilst the first study attempted to compensate for some of these factors, this is possible only to a limited degree. We may have to wait some while until it becomes more obvious what component of nuts is beneficial, and from which nuts this is best obtained.

What is clear is that the reputation of nuts as a high fat food that should be avoided by those with cardiovascular risk was misguided. Recommendations to avoid nuts may have done harm, and need to be revised. As indeed have so many of the dietary prescriptions of the 1960's, when understanding of the health aspects of dietary fat was - in retrospect - so limited.

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