

PEANUTS

surprisingly healthy



Dear Colleague

We are writing to all health professionals on the American Peanut Information Office database to update you on peanut-related research findings published over the past year focusing particularly on helping to reduce risks of type 2 diabetes and coronary heart disease.

Type 2 diabetes is a growing global problem with enormous associated medical and economic implications. In the UK about 3 in every 100 people have diabetes and 75% of these have Type 2. In the Netherlands more than 440,000 have Type 2 diabetes and the numbers are rising. While in Germany, diabetes specialists recently warned that the number of people with diabetes could reach 10 million within a decade. Across Europe generally there are many “missing millions” with diabetes who have not yet been detected or treated. Simple dietary, daily activity and weight changes are important factors in helping to achieve diabetes risk reduction in the general population. As latest research shows, peanuts and peanut butter as part of a balanced diet have a role to play.

FREQUENT PEANUT BUTTER CONSUMPTION IS ASSOCIATED WITH REDUCED DIABETES RISK IN WOMEN

Scientists at the Harvard School of Public Health, Boston, USA, studied the association between nut and peanut butter consumption and risk of Type 2 diabetes in 83,818 women from the Nurses' Health Study between the ages of 34 and 59 years old, with no history of diabetes, heart disease or cancer and with over 16 years of follow up.

Reporting towards the end of 2002 in the *Journal of the American Medical Association*, they found that eating nuts and eating peanut butter were inversely associated with risk of Type 2 diabetes after adjusting for age, body mass index (BMI), family history of diabetes, physical activity, smoking, alcohol use, and total calorie intake. (1)

The reduction in risk associated with nut and peanut butter consumption was greatest in those who had the highest regular consumption. Those who never or almost never ate nuts had no change in developing Type 2 diabetes; those who consumed nuts (1oz/ 28g serving) less than once per week, had an 8% lower risk; those who consumed nuts 1-4 times per week had a 16% lower risk; and those consuming nuts 5 or more times per week, had a 27% lower risk. Adjustments for other dietary factors, including dietary fats and cereal fibre, made no difference to the results.



Women who consumed peanut butter five or more times per week (the equivalent of 5 tablespoons or 75ml) had a 21% lower risk of developing Type 2 diabetes compared to women who never or almost never ate peanut butter.

Further analysis suggested that even in subjects at higher risk of developing Type 2 diabetes due to their other diabetes risk factors, such as overweight, smoking and alcohol use, those who ate more nuts had a lower risk for developing Type 2 diabetes than those who ate fewer or no nuts.

The researchers suggested that nuts and peanut butter could act to lower risk in a number of ways. Their mainly monounsaturated fat could positively affect insulin sensitivity; they are rich in fibre and magnesium; they have a relatively low glycaemic index and there could be other constituents including vitamins, minerals, antioxidants and plant protein exerting a positive effect. Interactions amongst these factors could also play a role. More research is underway at Harvard on these inter-related factors.

NO WEIGHT GAIN

In the past, concerns regarding the fat content of nuts and peanut butter have often coloured professional attitudes towards these foods. More recently, however, nuts and peanut butter have been shown to be useful components in successful weight reduction diets, where subjects maintained their weight loss even after two and a half years follow up. With a wealth of recent research demonstrating that consumption of nuts, including peanuts and peanut butter, can help to reduce blood cholesterol levels and contribute to reducing risk of coronary heart disease, the findings in relation to reduced diabetes risks are particularly welcome.

On the concern about weight gain, authors of the Harvard study concluded: "***There have been concerns that frequent nut consumption may result in weight gain and increased risk of coronary heart disease because of the high fat content. However, in our cohort, we did not find an appreciable association between nut consumption and weight change. ... These results contradict the conventional wisdom that intake of high-fat foods leads to obesity and heart disease.***"(1)



The Harvard team's practical advice was equally forthright: "***Given the observed inverse association between nuts and risk of coronary heart disease as well as type 2 diabetes, it is advisable to recommend regular nut consumption as a replacement for refined grain products or red or processed meats, which would avoid increasing caloric intake.***"(1) Such changes are easy to make: peanut butter is an ideal substitute for spreads high in saturated fat and a small handful of nuts is a nutrient-dense, high-satiety substitute for refined carbohydrate snacks.



PREVENTION OF CORONARY HEART DISEASE

Large-scale studies such as the Nurses Health Study, the Physicians Health Study and the Adventist Health Study found significant inverse associations between nut and peanut consumption and risks of coronary heart disease. It has been recently suggested that consuming a diet high in vegetables, nuts and whole grains and low in refined carbohydrates is an “optimal diet for prevention of coronary heart disease” in which increased omega-3 fatty acids from fish or plant sources and substitution of unsaturated fats for saturates and trans-fats are also important elements.(2)

Researchers at Purdue University in the USA reported in April this year how regular peanut consumption improved the indicators of risk for coronary heart disease in healthy adults to confer such optimal benefits.(3) This showed that there are a lot more things in peanuts with heart health benefits besides their beneficial unsaturated fat.

The Purdue University team studied the effects of incorporating peanuts into the daily diets of 15 healthy men and women. The participants all followed three different diets where 500 calories of peanuts (approx. 90g) were included as part of either a free-feeding diet, with no dietary guidance; an additional treatment diet where an extra 500 calories of peanuts was added to the usual diet; and a substitution treatment where the peanuts were substituted for 500 calories of fat in their usual diet.

One interesting finding was that total energy intakes did not change significantly with any of these regimes, thus confirming once again that peanuts need not result in weight gain. In fact many of the participants reported not being able to consume all the peanuts due to their filling nature, so helping to dispel another myth that people can't stop eating peanuts.



IMPROVED HEART HEALTH INDICES

The Purdue results confirmed that eating peanuts effectively lowers blood tryglyceride levels. Additionally, dietary intakes of several valuable nutrients that can help reduce risk of heart disease were significantly increased, namely: fibre, magnesium, folate, vitamin E, copper and arginine. Lead investigator Dr Richard Mattes commented: ***“We wanted to determine the impact of peanut consumption on total diet quality. We found that including peanuts in the diet significantly increased magnesium, folate, fibre, copper, vitamin E and arginine consumption, all of which play a role in the prevention of heart disease.”***(3)

These results showed peanut consumption to be effective in raising levels of magnesium and folate. Eating peanuts during this study enabled subjects to increase their intakes from 70% for magnesium and 80% for folate to well above 100% of recommended intake levels for both nutrients.

A PDF file of the Alper and Mattes paper for personal study is available through The Peanut Institute website by following this link <http://www.peanut-institute.org/images/Mattes4-03CVDrisk.pdf>

A STRONG EVIDENCE BASE

Taken together, these recent additions to the evidence base enhance the already impressive amount of research findings indicating that nuts, peanuts and peanut butter can be included as part of healthy dietary patterns.

The APC website www.peanutsusa.org.uk/nu3 has recipe examples for snacks, salads and main meals incorporating peanuts and peanut butter. Their versatility and cultural acceptability across Europe present many opportunities for health professionals to incorporate peanuts and peanut butter into practical approaches to reduce risks of both diabetes and heart disease.

If you would like copies of research papers for your private study, simply complete and return the enclosed "fax back" sheet.

We hope that you will find these latest research findings helpful. We look forward to contacting you in the future when additional peanut-related nutritional research becomes available. In the meantime, if we can be of further assistance please do not hesitate to contact us or consult the APC European website at www.peanutsusa.org.uk/nu3



References:

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