



INC International Nut & Dried Fruit Council Symposium Nuts in Health and Disease

Granada, 19th September 2013
Press Kit



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Index

- Introduction
- Keynote Speakers
- Conference Abstract
- Useful Information
- The International Nut and Dried Fruit Council



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Introduction

The INC - International Nut and Dried Fruit Council, funds symposium "**Nut in Health and Disease**" to be held on Thursday, 19 September 2013, within the frame of the 20th International Congress of Nutrition, Granada, Spain.

Leading researchers in the field of nutrition will address key questions related to nuts and health in front of over 150 health professionals: nut consumption and cardiovascular health; benefits in type 2 diabetes, and effects on appetite and body weight. **Prof. Jordi Salas-Salvadó**, Chair of Nutrition and Bromatology at the University Rovira i Virgili, Spain, and Chairman of the INC World Forum for Nutrition Research and Dissemination, will co-moderate the session along with **Prof. Miguel A. Martínez-González**, University of Navarra, Spain.

The session will review the latest and current epidemiologic data on the role of nut consumption on the risk of coronary heart disease, stroke, and heart failure; diabetes and metabolic syndrome, effects on appetite and body weight. In addition, the presentations will reflect the gaps in the field and future directions.

The most important epidemiologic data to consider are:

- Nut consumption is not associated with a higher risk of weight gain, so it should be part of the diet to prevent obesity and other chronic diseases.
- Daily nuts consumption reduces by 28% the risk of cardiovascular disease and associated mortality.
- According to the PREDIMED study a daily handful of nuts (15g of walnuts, 7.5g of hazelnuts, and 7.5g of almonds) reduces by 28% the incidence of cardiovascular disease (myocardial infarction, stroke and cardiovascular death).
- A regular intake of pistachios has a direct effect on the reduction of incidence of type 2 diabetes.
- Increasing nut consumption (\geq 5 times per week) is associated with a 30% lower risk of cardiovascular disease.
- Epidemiological data indicate that the inclusion of nuts in the diet represents a minimum risk of weight gain and this is supported by clinical studies.



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Keynote Speakers

Chairmen:



Prof. Miguel A. Martínez-González

Department of Preventive Medicine and Public Health, University of Navarra, Pamplona, Navarra, Spain

Prof. Jordi Salas-Salvadó

Chair of Nutrition and Bromatology at the University Rovira i Virgili, Reus, Spain, and Chairman of the INC World Forum for Nutrition Research and Dissemination,

Speakers:



Prof. Linda Tapsell. School of Health Sciences, Faculty of Health and Behavioral Sciences, University of Wollongong, Australia.



Dr. Mònica Bulló. Human Nutrition Unit, University Hospital of Sant Joan, Department of Biochemistry and Biotechnology, Pere Virgili Institute for Health Research, Rovira i Virgili University, Reus, Spain.



Prof. Joan Sabaté. Department of Nutrition, School of Public Health, Loma Linda University, Loma Linda, California, USA.
Prof. Frank Hu. Department of Nutrition, Harvard School of Public Health, Harvard University, Boston, USA.

Conference Abstract:

Effect of nuts intake on insulin resistance and other cardiovascular risk factors

Nuts may exert a protective effect on insulin resistance and type 2 diabetes mellitus (T2DM). However, the results in the literature are less conclusive than those related to cardiac outcomes. Thereof five large-prospective studies showed an inverse association between nut consumption and the risk of T2DM. Acute clinical trials demonstrate a reduction of glycemic impact of carbohydrate foods with which nuts are eaten, however the results of medium- and long-term feeding trials on insulin metabolism are controversial. Finally, although inflammation has been postulated as a potential mechanism linking diet with T2DM, the modulatory effect of nut consumption on inflammation is still unclear.

Effect of nuts on body weight

Nuts contain appreciable levels of fat, which could induce weight gain over time. So, is recommending frequent nut consumption for CVD prevention sound public health advice? Data indicate that subjects on nut-enriched diets excrete more fat in their stools, elicit strong dietary compensation, and may experience an increase in their resting energy expenditure. Currently, the available data do not indicate that free-living people on self-selected diets including the frequent consumption of nuts have a higher BMI or a tendency towards weight gain. Randomized trials are needed to evaluate the effects of nut consumption on energy balance and changes in BMI.

Epidemiologic studies on nuts and chronic diseases

In the past two decades, epidemiologic investigation and clinical studies have identified many health benefits of nuts. In particular, several prospective cohort studies have examined the relation between nut consumption and risk coronary heart disease (CHD) and all have found an inverse association. In a meta-analysis of these studies, a higher consumption of nuts (≥ 5 times/week) was associated

with approximately 30% lower risk of CHD. In addition, higher nut consumption has been associated to a decreased risk of type 2 diabetes. Nuts are high in unsaturated (polyunsaturated and monounsaturated) fat and other nutrients which may improve glucose and insulin homeostasis. Although nuts are high in fat and energy density, increasing consumption of nuts is actually associated with lower weight gain. Recent analyses from large cohort studies have found that regular consumption of nuts including peanuts and tree nuts is associated with decreased total and cause-specific mortality.

Tree nuts and metabolic syndrome

Metabolic syndrome is a condition involving a cluster of risk factors associated with diseases such as diabetes type 2 and cardiovascular disease. It presents with combinations of being overweight (and with a large waist) alongside other risk factors such as high blood pressure, glucose intolerance, high triglyceride levels and low HDL cholesterol levels. The evidence supporting the role of tree nuts in preventing or improving these risk profiles relates to a number of factors. Consumption of tree nuts has not been associated with weight gain, but has been associated with improvements in blood lipids. Tree nuts deliver many key nutrients such as essential fatty acids which are implicated in insulin action. Importantly, they have been shown to be an integral part of dietary patterns associated with a favorable impact on metabolic syndrome and the associated disease end points.

Useful information

- Most nuts are rich in MUFA (mostly, oleic acid), while walnuts are high in PUFAs (linoleic and alpha-linolenic acids).
- The dietary fibre in nuts is high, ranging from 5 to 9% by weight.
- Nuts are good sources of arginine, potassium, vitamin E, and other bioactive compounds.

According to the PREDIMED study, an energy-unrestricted Mediterranean diet supplemented with either extra-virgin olive oil or nuts resulted in a total risk reduction of approximately 3 major cardiovascular events per 1,000 person-years, for a relative risk reduction of approximately 30%, among high-risk persons who were initially free of cardiovascular disease. These results support the benefits of tree nuts for cardiovascular risk reduction.

One-half the amount of nuts used in the nut-supplemented group was made up of walnuts, which are rich in polyunsaturated fatty acids, particularly linoleic acid and alpha-linolenic acid, plant-derived omega-3 fatty acid, and polyphenols. The other half of the dose contained almonds and hazelnuts, both rich in monounsaturated fatty acids and polyphenols. As for extra virgin olive oil, in addition to being a rich source of monounsaturated fatty acids, it is also a good source of phenolic antioxidants.

Therefore, a Mediterranean diet supplemented with virgin oil is rich in monounsaturated fatty acids and phenolic antioxidants, and a Mediterranean diet supplemented with nuts is rich in n-9, n-6, and n-3 polyunsaturated fatty acids, as well as polyphenols. Although having the same general food pattern of the Mediterranean diet, the two groups diverged in the intake of two nutrients:



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monounsaturated fatty acids and polyunsaturated fatty acids (including alpha-linolenic acid) that are proven to be important in the prevention of cardiovascular diseases, and might have different beneficial effects.



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THE INC

The **International Nut and Dried Fruit Council** (INC) represents and endorses activities that provide its membership with new opportunities for increasing global consumption of almonds, apricot kernels, Brazil nuts, cashews, hazelnuts, macadamias, pecans, pine nuts, pistachios, walnuts, peanuts, dates, dried apricots, dried cranberries, dried figs, prunes, raisins, sultanas and currants.

Our purpose is to assist health professionals and researchers in getting access to information about the latest findings regarding nuts and dried fruit and health.

With more than 600 members from over 60 countries, the INC is working to spread facts about nuts, dried fruits, health and nutrition. Our purpose is to assist health professionals and researchers in getting information about the latest findings regarding nuts and dried fruit and health.

The INC World Forum for Nutrition Research and Dissemination is aimed at becoming the international umbrella for scientific research related to health and nutrition for nuts and dried fruits. The Forum promotes scientific research and coordinates the research proposals from around the world, defines priorities, promotes calls for specific research and disseminates the results of the different research studies worldwide.

Consumption of nuts and dried fruits keeps increasing, and credit should be given to the efforts of the industry and their health properties. Nowadays, information on the health benefits of the daily intake of nuts and dried fruits for the treatment and prevention of many diseases can be found in hundreds of scientific and medical journals. Even so, the health-cost burden from the lack of nuts and dried fruit in our diets is immense. When one considers the trend data for heart diseases, cancer and obesity prevalence, one realizes there is still much to do.

Objectives

- To promote and coordinate research from around the world.
- To promote calls for specific research projects.
- To disseminate the results of the studies worldwide.

Activities

- Defining research priorities in relation to nuts and dried fruits.
- Submitting and monitoring health claims.
- Launching a call for research projects.

Distributed in: English, Spanish, Turkish and Arab.

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