International Tree Nut Council Study Links Tree Nuts and Improved Type 2 Diabetes Health

New findings published today in Diabetologia

DAVIS, Calif. (PRWEB) May 23, 2018 -- One of the largest studies to date on nuts and diabetes was published today in Diabetologia*, the journal of the European Association for the Study of Diabetes (EASD). The study shows that approximately two ounces of nuts a day, as a replacement for carbohydrate foods, can improve glycemic control and blood lipids in those with type 2 diabetes.

Researchers from the University of Toronto and St. Michael’s Hospital in Toronto, Canada, found that tree nuts (almonds, Brazils, cashews, hazelnuts, pecans, pine nuts, pistachios, macadamias and walnuts) and peanuts improved blood lipid levels and blood sugar levels in individuals with non-insulin dependent diabetes.

This study, which was retracted by the authors at their request, was originally published in Diabetes Care**. It was a 3-month parallel design with 117 non-insulin dependent adults with diabetes (men and women with a mean age of 62 years) who were all being treated with oral hypoglycemic medications. The subjects were randomized to one of three diets for three months. The first diet included a supplement of 75g (~2½ ounces or ½ cup) of mixed nuts; the second diet included 38g (~1½ ounces or ¼ cup) of mixed nuts and half portion of whole wheat muffins; and the third diet contained a full portion of whole wheat muffins.

Each supplement provided approximately 475 calories per 2,000 calorie diet. All of the diets contained roughly the same number of calories, but the nuts provided more unsaturated (i.e. healthy) fat and less carbohydrate.

The goal of the study was to determine if nuts improve glycemic control in non-insulin dependent diabetes, as assessed by HbA1c (a marker of blood sugar control over the previous three months), and also improve markers of cardiovascular health.

“The original findings revealed that the full dose nut group had a significant reduction in HbA1c compared to the other two groups,” stated David Jenkins, MD, PhD, DSc, with the University of Toronto and St. Michael’s Hospital. “The current study shows a reduction in HbA1c and the low-density lipoprotein (LDL)-associated cardiovascular disease (CVD) risk factor, apolipoprotein B (Apo-B), stated Dr. Jenkins. “We also found lower levels of small LDL cholesterol—which is an emerging risk factor for CVD.” He added, "The bottom line is, this study showed a modest but significant improvement in blood glucose control, despite the higher fat intake, and improvement in lipid risk factors for heart disease with increasing nut dose."

According to Cyril Kendall, Ph.D., co-investigator of the study, “The improvements in blood glucose control and blood lipid levels that can be achieved by dietary and lifestyle changes are significant and could make a substantial contribution to the treatment of those with type 2 diabetes. Nuts are a healthy and flavorful option for individuals with diabetes that also promote healthy body weight.”

A number of studies have suggested that consuming tree nuts may reduce the risk of heart disease, confirmed by the PREDIMED trial in 2013. In 2003 tree nuts received a qualified health claim from the U.S. Food and Drug Administration (FDA) which states, “Scientific evidence suggests but does not prove that eating 1.5 ounces per day of most nuts, as part of a diet low in saturated fat and cholesterol, may reduce the risk of heart disease.” Interestingly, adults with diabetes are two to four times more likely to die from heart disease than...
adults without diabetes.

According to Maureen Ternus, M.S., R.D., Executive Director of the International Tree Nut Council Nutrition Research & Education Foundation (INC NREF), “While we’ve known for years that eating nuts every day can help reduce the risk for heart disease, these findings show that consuming nuts may be helpful in controlling type 2 diabetes as well.”

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The original study was published in 2011 but retracted as the statistical model used did not control for repeated measures in the same individual. The current study fixed the previous statistical error and added new data of interest including LDL particle size and clotting factors.

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The International Tree Nut Council Nutrition Research & Education Foundation (INC NREF) represents the research and education arm of the International Tree Nut Council (INC). INC is an International, non-profit, non-governmental organization dedicated to supporting nutrition research and education for consumers and health professionals throughout the world and promoting new product development for tree nut products. Members include those associations and organizations that represent the nine tree nuts (almonds, Brazils, cashews, hazelnuts, macadamias, pecans, pine nuts, pistachios and walnuts) in more than 40 producing countries. For more information, please visit our website at [www.nuthealth.org](http://www.nuthealth.org).


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