Mediterranean diet may lower risk of diabetes

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Adoption of a Mediterranean diet is linked to a lower risk of diabetes, especially among people at high risk for cardiovascular disease, according to research to be presented at the American College of Cardiology's 63rd Annual Scientific Session.

Data from the first pooled analysis of studies evaluating the possible role of the Mediterranean diet on diabetes development show that adherence to this diet was associated with a 21 percent reduced risk of diabetes as compared to the control dietary groups. This reduced risk was even more pronounced among people at high risk for cardiovascular disease – among whom diabetes prevention is especially critical. The analysis showed that patients in this subgroup were almost 27 percent less likely to develop diabetes compared to controls.

"Adherence to the Mediterranean diet may prevent the development of diabetes irrespective of age, sex, race or culture," said Demosthenes Panagiotakos, Ph.D., professor at Harokopio University, Athens, Greece, and lead investigator of this meta-analysis. "This diet has a beneficial effect, even in high risk groups, and speaks to the fact that it is never too late to start eating a healthy diet."

The researchers systematically reviewed 19 original research studies that followed more than 162,000 participants for an average of 5.5 years. These studies spanned European and non-European populations, which Panagiotakos said is important as most of the published studies have been European-based and there has been some question of possible

confounding factors in these regions, including genetics, the environment, lifestyle and lower stress levels.

But researchers found that regardless of the study population – European or non-European or high or low risk of cardiovascular disease – the association between the Mediterranean diet and lower risk of diabetes remained. While there is no set Mediterranean diet, it commonly emphasizes fresh fruits and vegetables, whole grains, beans, nuts, fish, olive oil and even a glass of red wine.

"A meta-analysis captures the limitations of individual studies, and this type of study is important to help inform guidelines and evidence-based care," Panagiotakos said. "Diabetes is an ongoing epidemic and its relation to obesity, especially in the Westernized populations, is well known. We have to do something to prevent diabetes and changing our diet may be an effective treatment."

The number of diabetes cases has doubled worldwide in the past 30 years and has been linked to the growing obesity epidemic. People with diabetes have trouble controlling their blood sugar because they either do not produce the hormone insulin or do not use it properly. If uncontrolled, diabetes can lead to complications including blindness, kidney failure, cardiovascular disease and amputations.

Panagiotakos said he believes the Mediterranean diet, in particular, lowers the risk of diabetes by helping to guard against obesity. Earlier research has shown that following the traditional Mediterranean diet is also linked to weight loss, reduced risk of heart disease and related death, as well as lower blood pressure and blood cholesterol levels.

Researchers initially identified more than 400 related studies for their analysis but excluded the vast majority based on criteria they set and study designs (for example, studies not actually addressing the issue of

diet and diabetes even though they were identified through key words used, lack of a control group or randomization, inclusion of people with diabetes or prediabetes or limiting the study only to a component of the traditional Mediterranean diet). Diet was most often assessed by food frequency questionnaires and 24-hour or three-day recall. The control dietary groups varied but included the diets common to the study location.

Provided by American College of Cardiology

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