Diet additions may help youth with type 1 diabetes keep producing own insulin

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Adding foods rich in specific amino and fatty acids to the diets of youth with Type 1 diabetes kept them producing some of their own insulin for up to two years after diagnosis, said researchers at the Gillings School of Global Public Health at the University of North Carolina at Chapel Hill.

The youth still required supplemental insulin, but they may have reduced risk of diabetes complications by continuing to produce some of their own insulin, said Elizabeth Mayer-Davis, professor of nutrition at Gillings and medicine at UNC's School of Medicine, who led the study of more than 1,300 youth. "This also opens the door for a new approach that could really benefit the lives of these children."

The study, "Nutritional Factors and Preservation of C-Peptide in Youth with Recently Diagnosed Type 1 Diabetes," was published in the July 2013 issue of the journal *Diabetes Care*.

The participating youngsters, ranging from toddlers up to age 20, are part of a multi-center "SEARCH for Diabetes in Youth," the largest U.S. study of childhood diabetes. Mayer-Davis is national co-chair of SEARCH, funded by the national Centers for Disease Control and Prevention and the National Institutes of Health.

Type 1 diabetes is almost always diagnosed between infancy and young adulthood, according to the American Diabetes Association. The body's pancreas is unable to produce adequate amounts of the hormone insulin, required to metabolize food properly and create energy for the body's

cells.

Leucine, one of the branched-chain amino acids researchers looked at, is known to stimulate secretion. It is found in dairy products, meats, soy products, eggs, nuts and products made with whole wheat. Long-chain omega-3 fatty acids are found in fatty fish such as salmon.

The researchers analyzed how much (if any) insulin the subjects were producing up to two years after their diagnosis and compared this with nutritional intake.

Mayer-Davis noted the study reflects subjects eating actual foods rich in these nutrients, not taking supplements.

More information: care.diabetesjournals.org/cont … 7/1842.full.pdf+html

Provided by University of North Carolina at Chapel Hill

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