

CONSUMPTION OF HIGH-FRUCTOSE CORN SYRUP IS ASSOCIATED WITH INCREASED RISK OF TYPE 2 DIABETES AND OTHER METABOLIC SYNDROME ISSUES IN YOUNG AND MIDDLE-AGED WOMEN. A. A. Sullivan. St. Catherine University.

Studies have found that consumption of high fructose corn syrup (HFCS) is associated with increased energy intake and weight gain. The purpose of this systematic review was to examine articles studying the effects of high HFCS consumption ( $\geq 1$  serving/day) and risk of type 2 diabetes in women. PubMed was searched using keywords: "HFCS," "type 2 diabetes," and limited to human research. Articles were included if they were published within the past 10 years, and excluded if the research focused on children, adolescents, or men. Six studies were identified. Five studies demonstrated evidence of an association between HFCS consumption and increased risk of type 2 diabetes and other metabolic syndrome risk factors in young and middle-aged women. One study did not find a difference in effects of HFCS and sucrose. Meta-Analysis, Cross-Sectional Studies, and Prospective Cohort Studies found an association between consumption of high-fructose corn syrup and increased risk of type 2 diabetes and metabolic syndrome in women. Key findings observed included an association between consumption of HFCS and increased risk of type 2 diabetes, metabolic syndrome, gestational diabetes, albuminuria, and gout. No significant difference between HFCS and sucrose were noted in one RCT. Based on these studies, high consumption ( $\geq 1$  serving/day) of HFCS is associated with increased risk of type 2 diabetes and other metabolic syndrome issues in young and middle-aged women. Study limitations included an inability to determine cause and effect due to study design. Future research using a RCT is needed to determine HFCS's sole effect on risk of type 2 diabetes and metabolic syndrome in women.