

# *Coffee and type 2 Diabetes*

Coffee is among the most widely used beverages worldwide. It contains several substances that may affect glucose uptake and metabolism and is obtained from tealeaves, guarana, and cola plant seeds. Numerous epidemiologic, clinical, experimental studies have been conducted to investigate the effects of coffee on cardiovascular diseases, cancers, cholelithiasis, neurologic disorders, endocrine disorders, kidney stones and T2DM.

Type 2 diabetes, once known as adult-onset or noninsulin-dependent diabetes, is a chronic condition that affects the way your body metabolizes sugar (glucose), your body's important source of fuel.

With type 2 diabetes, your body either resists the effects of insulin — a hormone that regulates the movement of sugar into your cells — or doesn't produce enough insulin to maintain a normal glucose level.

Researchers don't fully understand why some people develop type 2 diabetes and others don't. It's clear, however, that certain factors increase the risk, including: Weight, Fat distribution, Inactivity, Family history, Race, Age, Prediabetes, Gestational diabetes, Polycystic ovary syndrome.

Dietary supplements are one of the best choices known to have natural properties against T2DM. (1)

In 2009, a prospective cohort study was done by Y. Zhang, E.T. Lee, L.D. Cowan and their colleagues on a 1141 American Indian men and women 45–74 years of age were included to examine the association between coffee consumption and the incidence of type 2 diabetes in persons with normal glucose tolerance in a population with a high incidence and prevalence of diabetes. the result of this study indicate that a high level of coffee consumption was associated with a reduced risk of deterioration of glucose metabolism over an average 7.6 years of follow-up. (2)

Pereira MA and his colleagues in 2006, perform a study with 28812 postmenopausal women free of diabetes and cardiovascular disease in the general community, and their objective was to examine the association between total, caffeinated, and decaffeinated coffee intake, and risk of incident type 2 diabetes mellitus. The result of this study indicate that Coffee intake, especially decaffeinated, was inversely associated with risk of type 2 diabetes mellitus in this cohort of postmenopausal women. (3)

In 24 April 2014 a study was designed by Frank Hu, M.D., Ph.D. and their colleagues on a 95,000 women enrolled in two nurses health studies in the United States, and nearly 28,000 male participants in a separate health professionals' study. The objective is to measure their consumption patterns for four years, and then looked at subsequent diagnoses of type 2 diabetes. Results showed that participants who increased their coffee consumption by more than one cup per day (median change=1.69 cups/day) over a four-year period had a 11% lower risk of type 2 diabetes in the subsequent four years compared to those who made no changes in consumption. (4)

In our conclusion, increasing coffee consumption reduces the risk of type 2 diabetes by 11 percent, research shows. Coffee consumption has been associated with a lower type 2 diabetes risk but little is known about how changes in coffee consumption influence subsequent type 2 diabetes risk.

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### **References:**

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