Dark Chocolate: A Bittersweet Remedy for Diabetes Risk

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TOPLINE:

Consuming five or more servings per week of dark chocolate is associated with a lower risk for type 2 diabetes (T2D), compared with infrequent or no consumption. Conversely, a higher consumption of milk chocolate does not significantly affect the risk for diabetes and may contribute to greater weight gain.

METHODOLOGY:

- Chocolate is rich in flavanols, natural compounds known to support heart health and lower the risk for T2D. However, the link between chocolate consumption and the risk for T2D is uncertain, with inconsistent research findings that don't distinguish between dark or milk chocolate.
- Researchers conducted a prospective cohort study to investigate the associations between dark, milk, and total chocolate consumption and the risk for T2D in three long-term US studies of female nurses and male healthcare professionals with no history of diabetes, cardiovascular disease, or cancer at baseline.
- The relationship between total chocolate consumption and the risk for diabetes was investigated in 192,208 individuals who reported their chocolate consumption using validated food frequency questionnaires every 4 years from 1986 onward.
- Information on chocolate subtypes was assessed from 2006/2007 onward in 111,654 participants.
- Participants self-reported T2D through biennial questionnaires, which was confirmed via supplementary questionnaires collecting data on glucose levels, hemoglobin A1c concentration, symptoms, and treatments; they also self-reported their body weight at baseline and during follow-ups.

TAKEAWAY:

- During 4,829,175 person-years of follow-up, researchers identified 18,862 individuals with incident T2D in the total chocolate analysis cohort.
- In the chocolate subtype cohort, 4771 incident T2D cases were identified during 1,270,348 person-years of follow-up. Having at least five servings per week of dark chocolate was associated with a 21% lower risk for T2D (adjusted hazard ratio, 0.79; *P* for trend = .006), while milk chocolate consumption showed no significant link (*P* for trend = .75).
- The risk for T2D decreased by 3% for each additional serving of dark chocolate consumed weekly, indicating a dose-response effect.
- Compared with individuals who did not change their chocolate intake, those who had an increased milk chocolate intake had greater weight gain over 4-year periods (mean difference, 0.35 kg; 95% CI, 0.27-0.43); dark chocolate showed no significant association with weight change.

IN PRACTICE:

“Even though dark and milk chocolate have similar levels of calories and saturated fat, it appears that the rich polyphenols in dark chocolate might offset the effects of saturated fat and sugar on weight gain and diabetes. It’s an intriguing difference that’s worth exploring more,” corresponding author Qi Sun from the Departments of Nutrition and Epidemiology, Harvard TH Chan School of Public Health, Boston, Massachusetts, said in a press release.

SOURCE:

This study was led by Binkai Liu, Harvard TH Chan School of Public Health. It was published online in *The BMJ*.