Eating chocolate each day could reduce heart disease and diabetes risk

April 29 2016

Chocolate. Credit: Wikimedia Commons

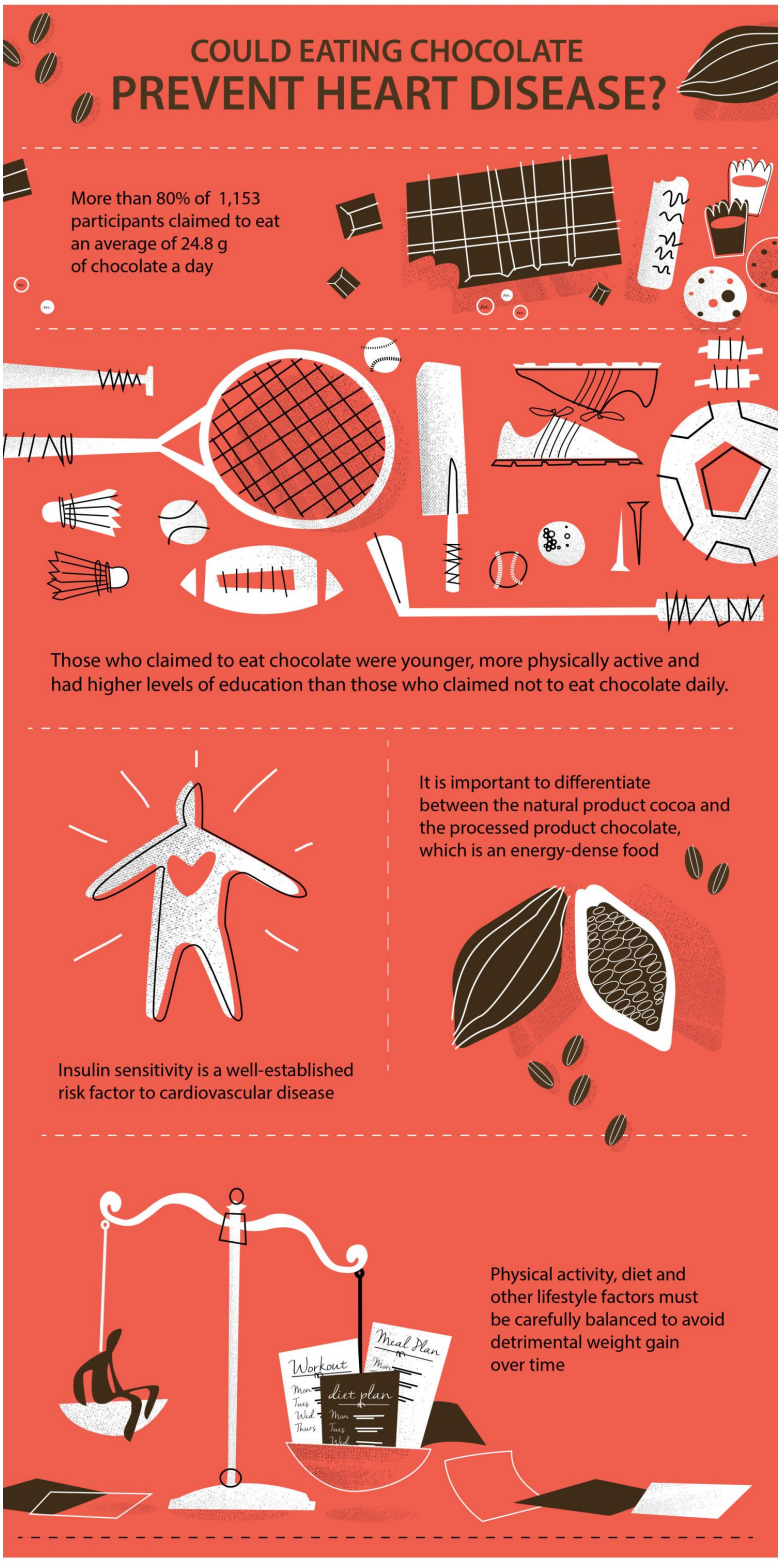
A new study published in the *British Journal of Nutrition* appears to back up the adage that a little of what you fancy does you good.

Including a small amount of chocolate each day could help prevent diabetes and insulin resistance. That's one of the research findings from the Luxembourg Institute of Health (LIH), the University of Warwick Medical School, the University of South Australia and the University of Maine.

Data of 1,153 people aged 18-69 years old who were part of the Observation of Cardiovascular Risk in Luxembourg (ORISCAV-LUX) study were analysed. It was found that those who ate 100 g of chocolate a day - equivalent to a bar – had reduced insulin resistance and improved

liver enzymes. Insulin resistance is a well-established risk factor to cardiovascular disease.

The academics hypothesised that chocolate consumption may have a beneficial effect on insulin sensitivity and liver enzymes and therefore decided to analyse a national sample of adults, taking into account lifestyle and dietary factors, including the simultaneous consumption of tea and coffee. This is because both drinks can be high in polyphenol, the substance which may provide chocolate with its beneficial cardiometabolic effects.



Taken from 'Daily chocolate consumption is inversely associated with insulin resistance and liver enzymes in the Observation of Cardiovascular Risk Factors in Luxembourg study' authors: Ala'a Alkerwi & Nicolas Sauvageot Luxembourg Institute of Health (LIH); Saverio Stranges, LIH & University of Warwick Medical School; Georgina E. Crichton LIH & University of South Australia; Merrill F. Elias, University of Maine.

WARWICK
THE UNIVERSITY OF WARWICK

Credit: University of Warwick

Prof Saverio Stranges, Visiting Academic at the University of Warwick Medical School and Scientific Director of the Department of Population Health at LIH said: "Given the growing body of evidence, including our own study, cocoa-based products may represent an additional dietary recommendation to improve cardio-metabolic health; however, observational results need to be supported by robust trial evidence.

"Potential applications of this knowledge include recommendations by healthcare professionals to encourage individuals to consume a wide range of phytochemical-rich foods, which can include dark chocolate in moderate amounts. However, it is important to differentiate between the natural product cocoa and the processed product chocolate, which is an energy-dense food. Therefore, physical activity, diet and other lifestyle factors must be carefully balanced to avoid detrimental weight gain over time."

More than 80% of participants claimed to eat an average of 24.8 g of chocolate a day. The study also found that those who claimed to eat chocolate were younger, more physically active and had higher levels of education than those who claimed not to eat chocolate on a daily basis.

Dr Ala'a Alkerwi, the Principal Investigator of the study at LIH said: "It is also possible that chocolate consumption may represent an overall marker for a cluster of favourable socio-demographic profiles, healthier lifestyle behaviours and better health status. This could explain, at least in part, the observed inverse associations with insulin and liver biomarkers."

The paper concluded that further observational research and randomised controlled studies are needed to understand the role chocolate may play in insulin resistance and cardiometabolic disorders.

More information: Ala'a Alkerwi et al. Daily chocolate consumption is inversely associated with insulin resistance and liver enzymes in the Observation of Cardiovascular Risk Factors in Luxembourg study, *British Journal of Nutrition* (2016). DOI: 10.1017/S0007114516000702

Provided by University of Warwick