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Prospective study of changes in sugar-sweetened beverage consumption and the incidence of the metabolic syndrome and its components: the SUN cohort.

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*Source*

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*Abstract*

The incidence of the metabolic syndrome (MetS) is increasing and lifestyle behaviours may play a role. The aim of the present study was to prospectively assess the association between changes in the consumption of sugar-sweetened beverages (SSB) and the incidence of the MetS and its components in a Spanish cohort of university graduates. We included 8157 participants initially free of the MetS and followed up during at least 6 years. SSB consumption was collected by a FFQ previously validated in Spain. The change in SSB consumption was calculated as the difference between SSB consumption at a 6-year follow-up and baseline consumption. The MetS was defined according to the International Diabetes Federation and the American Heart Association/National Heart, Lung, and Blood Institute's new definition of the MetS that had harmonised previous definitions. The associations between changes in SSB intake and the MetS were examined using multiple logistic regression. We observed 361 incident cases of the MetS. Participants who increased their consumption of SSB (upper v. lower quintile) had a significantly higher risk of developing the MetS (adjusted OR 2.2, 95 % CI 1.4, 3.5; P for trend = 0.003). Similarly, they presented a significantly higher risk of developing high blood pressure (adjusted OR 1.6, 95 % CI 1.3, 2.1), central obesity (adjusted OR 2.3, 95 % CI 1.9, 2.7), hypertriglycerolaemia (adjusted OR 1.7, 95 % CI 1.1, 2.6) or impaired fasting glucose (adjusted OR 1.6, 95 % CI 1.1, 2.2). In conclusion, an increase in SSB consumption was associated with a higher risk of developing the MetS and other metabolic disorders after 6 years of follow-up in a Mediterranean cohort of university graduates.