Role of fermented beverages in the maintenance of weight loss

Obesity is an increasingly prevalent disease and is associated with multiple chronic complications, such as diabetes mellitus, arterial hypertension, increased risk of cancer, etc. These complications may be ameliorated or even disappear after small but maintained weight loss. Nevertheless, 80% of the people that are able to lose 5-10% of weight regain it within two years. Therefore, maintenance of weight loss has proven to be one of the biggest challenges to control this epidemic.

Although the reasons that contribute to weight regain are diverse and related to the biological response to caloric restriction and the lack of adherence to treatment, up to 20% of the people are able to keep it off. The keys to success involve the maintenance of healthy habits, exercise and a reasonable daily calorie intake to allow a normal way of life, without sacrificing social life. At this point, learning to distinguish food and drink options in cultures where social life often revolves around the table turns out to be essential.

Although multiple potential harmful effects of alcohol are widely known, mild-to-moderate consumption of low-grade alcoholic drinks has proven to be a protective factor regarding cardiovascular and cerebrovascular diseases, some types of cancers, cognitive impairment, diabetes and osteoporosis, as well as regarding global mortality. Thus, the J-shaped curve (Marcos et al. 2015) represent the risk of mortality due to alcohol intake. Furthermore, the effect of alcohol on body weight and composition depends on the amount ingested and on the pattern of consumption. Whereas a high consumption, especially in a short-time period, is associated with obesity and abdominal adiposity (possibly through the effect of alcohol metabolism on the oxidation of fats), a mild-to-moderate frequent consumption of alcohol is not associated with weight gain nor abdominal obesity, and may even have a protective effect.

Fermented beverages, such as beer or wine, are those processed from fruits or cereals in which yeasts mediate sugar transformation into alcohol. The energy content of beer ranges from 45 kcal/100cc of the traditional beer to 17 kcal/100cc of those alcohol-free. Therefore, a moderate consumption of beer does not constitute a significant extra contribution of calories neither deteriorates the nutrient balance by its composition. Accordingly, beer is a drink low in ethanol (2-5%) but very complete at a nutritional level. It has a high water content (~92g/100), which gives it a moisturizing and diuretic effect. It also contain carbohydrates (~3g/100), soluble fiber, minerals and trace elements (such as phosphorus, silicon, magnesium, potassium, B vitamins and high antioxidant power polyphenols).

In any case, the relationship between beer consumption, body weight and abdominal fat is influenced by a number of difficult-to-control confounding factors. These include: a) beer consumers tend to have poorer dietary habits, with higher calorie diets, higher fat content and lower fruit, vegetable and cereal content than wine consumers; b) drinking beer is often linked to

smoking and this in turn is linked to increased abdominal fat; c) physical activity is a confounding factor difficult to adjust in many studies; d) beer consumption is usually underestimated, as most studies are based on self-referenced surveys.

In conclusion, maintenance of weight loss is harder than losing it. Mild-to-moderate consumption of fermented beverages such as beer has not been associated with weight increase nor abdominal adiposity. Furthermore, it may be nutritionally beneficial, as it represents a potentially protective factor against the development of several diseases.

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Publication

Papel de las bebidas fermentadas en el mantenimiento del peso perdido.
Monereo Megías S, Arnoriaga Rodríguez M, Olmedilla Ishishi YL, Martínez de Icaya P
Nutr Hosp. 2016 Jul 12