



THE FRUITS BETWEEN NECESSITIES AND RISKS

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Abstract

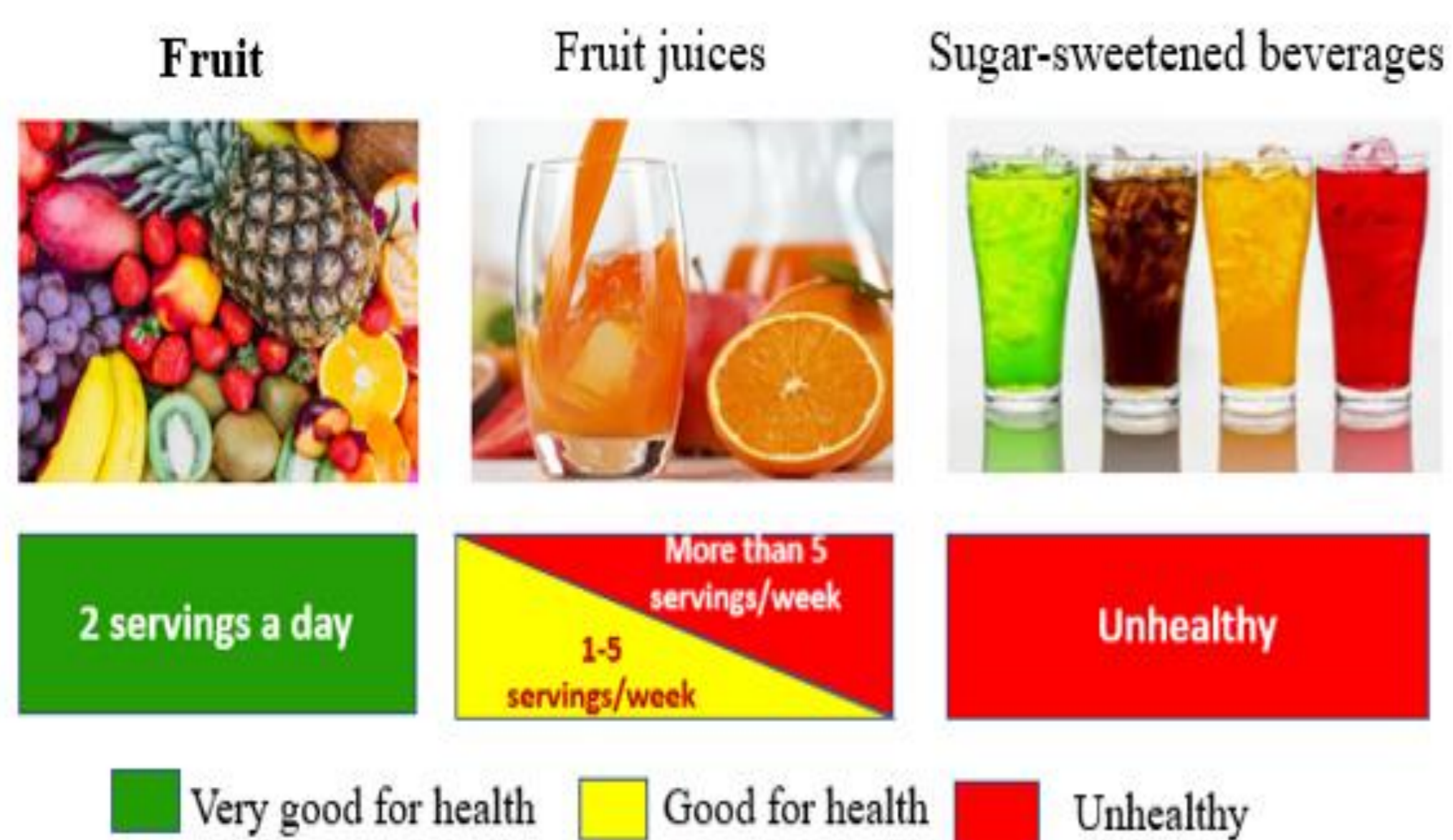
Two thousand and four hundred years ago Hippocrates said, "Let thy food be thy medicine and thy medicine be thy food." Hippocrates understood that a person's health, body and mind are affected by food which could prevent illness as well as maintain wellness. Nowadays, the promotion of healthy diets is likely one of the most cost-effective strategies for preventing a wide range of disorders, including cardiovascular disease, obesity, hypertension, and type 2 diabetes. [Singh and Singh, 2023]

The carbohydrates, besides other nutrients from the food, are important in maintaining homeostasis of the human body, respectively the condition of optimal functioning for the organism.

Dietary risk factors associated with poor health in the United States are those considered to be low in fruits, vegetables, whole grains, nuts, and seeds and high in refined carbohydrates, added sugars, sodium, and certain saturated fats. [Taylor C and all., 2020]

Eating a diet rich in fruits as part of an overall healthy diet may reduce the risk of many types disease. Most nutritional and global recommendations include consumption of at least 2 servings of fruits per day for adults [U.K. Government 2018; USDA 2018a, Health Canada 2014].

Even so, the question arises whether fruits could also be a risk to human health? Although they are widely recommended for their health-promoting properties, due to their vitamin, mineral, dietary fiber, and, more recently, dietary bioactive content, it needs paying attention to some potential issues. The degree of maturation at the time of consumption, the form of ensuring them in the ration (figure 1), as well as the quantity consumed, can be all problems that need to be taken into account.



The fruit in their harvested consumed form varied widely in nutritional contribution, density, and dietary bioactive content of a standard serving [Hornick and Weiss 2011].

It is large accepted that fruit intake is protective for human health, but there is no consent related to the effects of consuming the juices extracted from them [Hyson, 2015]. The primary component of fruit juices, is represented by free sugars in a concentration of about 100–120 g/L depending on the variety and the quality of fruits [Camerlingo and all, 2007]. It is well known that sugar-sweetened beverage consumption impacts the adverse effects on metabolic risk factors, such as dyslipidemia and insulin resistance [Campos, 2016, Schwarz, 2015, Aeberli, 2011].

There is a large similarity between fruit juices and sugar-sweetened beverages in terms of free sugar and fructose content. Any way it seems the fruit juices have different health effects comparatively with those of sugar-sweetened beverages. The reason could be that fruit juices are a source of various bioactive compounds, such as vitamins (vitamin C, folate, etc.), minerals (mostly potassium), and antioxidants [Ruxton, 2006], even if these components are in smaller quantities than in whole fruit.

The quantity is also important. Ferreira-Pêgo and all., 2016, in a recent population study showed that the consumption of more than five servings/week (200 mL/serving) of either natural fruit juices or sugar-sweetened beverages was associated with an increased risk of metabolic syndrome, more specifically of abdominal obesity and hypertriglyceridemia. Instead, the consumption of 1–5 servings of natural fruit juices weekly (without any sugar-sweetened beverages) was inversely associated with the same risk factors.

The goal of the paper is both to highlight the importance of fruit on human health and to underline the main issues in fruit consumption. It is also, to design, obtain and analyze some fruit products taking in consideration both previously aspects.

Keywords: health benefits, fruit juices; free sugars; diet