



Gluten-Free Diet for Non-Celiac Individuals: Is it a Good Option?

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Intake of gluten, a heterogeneous complex of protein present in wheat, rye, barley and probably oats, has been associated with clinical disorders such as celiac disease, wheat allergy, and recently, wheat intolerance syndrome or non-susceptibility celiac to gluten. The prevalence of gluten-related diseases is estimated at about 5%, however, in the last 5 years, the consumption of Gluten-Free foods in the general population is around 12 to 25% [1]. Although the benefits of gluten-free diets in the general population are unclear, followers of this diet without medical indications are increasing considerably [2]. Recently published research has shown that the proportion of Americans with celiac disease remained stable from 2009 to 2014, and even so, the number of adherents to gluten-free diets has increased [3]. Many people follow a self-prescribed "Gluten-Free" diet without having been previously diagnosed as having a gluten-associated pathology [1] as a strategy for weight loss or maintaining a "healthier" diet [4].

Some authors believe that gluten may promote inflammation, increasing the risk of obesity, insulin resistance and metabolic syndrome [5,6]. However, recent studies have demonstrated that the withdrawal of gluten from the diet does not bring benefits in reducing the risk for the development of metabolic syndrome and cardiovascular diseases [2] and may even be associated with an increased risk for the development of coronary diseases [7].

In order to evaluate the association between gluten intake and the onset of coronary heart disease, Lebowhl., *et al.* 2017 [7] studied, through a prospective cohort study, 64,714 women and 45,303 men from 1986 to 2010 using a frequency questionnaire semiquantitative food containing 131 items, evaluated every 4 years. These authors observed that, during these 26 years of study, 2431 women and 4098 men developed coronary disease, being the highest prevalence in the group of the lowest quintile of gluten consumption when compared to the group of the highest quintile. After adjusting for the confounding variables, the authors concluded that gluten consumption is not directly associated with the onset of coronary diseases, however, the exclusion of gluten from the diet is associated with a reduction in the consumption of whole grains, which increases the risk cardiovascular.

Instead of bringing proven benefits to the body, this food "fad" has been contributing to the enrichment of the industry. A study carried out in Greece, published in 2017, aimed to compare the cost of Gluten-free products from supermarkets and pharmacies with their conventional products and showed that supermarket gluten-free products had a cost of 22 - 334% higher and of pharmacy 88 - 476% higher when compared to conventional products (containing Gluten) [8]. Another study developed in Austria found that the cost of gluten-free products ranged from 205 to 267% more than their gluten-like counterparts. In addition, this same study showed that gluten-free products had a lower amount of protein in 57% of the categories of products analyzed. These authors conclude that for the general population, without celiac disease, the replacement

of gluten-free foods with Gluten-Free foods is associated with a substantial increase in cost and does not bring additional health benefits from a nutritional perspective [9].

Based on this information, it can be concluded that consumption of gluten-free diets among people without celiac disease should not be encouraged. In addition, substitution of foods with gluten for individuals wishing to make this restriction should be performed following a nutritionist's guidelines so that there is no impairment in the consumption of other nutrients, such as fiber and protein, for example.

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