



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

Marina de Moraes Vasconcelos Petribú\*

Adjunct Professor of the Nutrition Center of the Academic Center of Vitória, Federal University of Pernambuco, Brazil

\*Corresponding Author: Marina de Moraes Vasconcelos Petribú, Adjunct Professor of the Nutrition Center of the Academic Center of Vitória, Federal University of Pernambuco, Brazil.

Received: December 09, 2017; Published: January 31, 2018

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.

### Bibliography

1. Valenti S., *et al.* "Gluten-related disorders: certainties, questions and doubts". *Annals of Medicine* 49.7 (2017): 569-581.
2. Kim HS., *et al.* "Obesity, metabolic Syndrome and cardiovascular risk in gluten-free followers without celiac disease in the United States: Results from the National Health and Nutrition Examination Survey 2009-2014". *Digestive Diseases and Sciences* 62.9 (2017): 2440-2448.
3. Kim HS., *et al.* "Time trends in the prevalence of celiac disease and gluten-free diet in the US population: results from the national health and nutrition examination surveys 2009-2014". *JAMA Internal Medicine* 176.11 (2016): 1716-1717.
4. Cabrera-Chávez F., *et al.* "Prevalence of self-reported gluten sensitivity and adherence to a gluten-free diet in Argentinian adult population". *Nutrients* 9.1 (2017): E81.
5. Jamnik J., *et al.* "Gluten Intake is Positively Associated with Plasma  $\alpha$ 2-Macroglobulin in Young Adults". *Journal of Nutrition* 145.6 (2015): 1256-1262.
6. Soares FL., *et al.* "Gluten-free diet reduces adiposity, inflammation and insulin resistance associated with the induction of PPAR-alpha and PPAR-gamma expression". *Journal of Nutritional Biochemistry* 24.6 (2013): 1105-1111.
7. Lebowhl B., *et al.* "Long term gluten consumption in adults without celiac disease and risk of coronary heart disease: prospective cohort study". *British Medical Journal* 357 (2017): 1892.
8. Panagiotou S and Kontogianni MD. "The economic burden of gluten-free products and gluten-free diet: a cost estimation analysis in Greece". *Journal of Human Nutrition and Dietetics* 30.6 (2017): 746-752.
9. Missbach B., *et al.* "Gluten-free food database: the nutritional quality and cost of packaged gluten-free foods". *PeerJ* 3 (2015): e1337.

Volume 2 Issue 2 February 2018

© All rights are reserved by Marina de Moraes Vasconcelos Petribú.