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## REVIEW STUDY ON CARBOHYDRATES AND FIBRE

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### ABSTRACT

*The diets high in fibre such as cereals, nuts, fruits and vegetables have a beneficial impact on health because their intake has been linked to reduced incidence of many illnesses. The diets with high concentration of fibre have been found to have a beneficial impact on health. During processing the foods undergo different physical, chemical, enzymatic and thermal treatments, which directly or indirectly influence the composition of total fiber in the past, carbohydrates have been regarded of merely as a source of energy and fibre. However, recent research has revealed a myriad of photoactive chemicals contained within fibre fractions of carbohydrates, as well as a wide range of beneficial physiological functions (such as increased transit time, production of short chain fatty acids, increased satiety etc.) which can be ascribed to various substances found in carbohydrates. This study highlights the function of carbs in health and looks at the various kinds of carbohydrates, current dietary consumption, and the effect of fibre on prevention of cancer, heart disease and weight gain. In addition, the study examines the prebiotic activity of resistant starches.*

**KEYWORDS:** Carbohydrates, Cereals, Fibre, Cancer, Digestive Disorders, Prebiotics.

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### REFERENCES:

1. S. C. Houghton et al., "Carbohydrate and fiber intake and the risk of premenstrual syndrome," Eur. J. Clin. Nutr., 2018, doi: 10.1038/s41430-017-0076-8.
2. Y. Hashimoto et al., "Intake of Carbohydrate to Fiber Ratio Is a Useful Marker for Metabolic Syndrome in Patients with Type 2 Diabetes: A Cross-Sectional Study," Ann. Nutr. Metab., 2018, doi: 10.1159/000486550.
3. A. C. Sylvetsky et al., "A high-carbohydrate, high-fiber, low-fat diet results in weight loss among adults at high risk of type 2 diabetes," J. Nutr., 2017, doi: 10.3945/jn.117.252395.
4. J. W. Anderson, K. M. Randles, C. W. C. Kendall, and D. J. A. Jenkins, "Carbohydrate and Fiber Recommendations for Individuals with Diabetes: A Quantitative Assessment and Meta-Analysis of the Evidence," J. Am. Coll. Nutr., 2004, doi: 10.1080/07315724.2004.10719338.
5. H. B. AlEsa et al., "Carbohydrate quality and quantity and risk of type 2 diabetes in US women," Am. J. Clin. Nutr., 2015, doi: 10.3945/ajcn.115.116558.
6. H. B. AlEsa et al., "Carbohydrate quality and quantity and risk of coronary heart disease among US women and men," Am. J. Clin. Nutr., 2018, doi: 10.1093/ajcn/nqx060.
7. A. Irnawati, E. Dardjito, and Saryono, "The Relation between Weekly Physical Activity , the

Level Consumption of Carbohydrates and Fibers on Blood Sugar Concetration of The Beginning and End The Elderly at Posbindu Sehati,” J Gipas, 2017.

8. H. C. R. Simpson Et Al., “A High Carbohydrate Leguminous Fibre Diet Improves All Aspects Of Diabetic Control,” Lancet, 1981, Doi: 10.1016/S0140-6736(81)90112-4.
9. J. L. Slavin, “Carbohydrates, dietary fiber, and resistant starch in white vegetables: Links to health outcomes,” Adv. Nutr., 2013, doi: 10.3945/an.112.003491.
10. B. Gassmann, “Dietary Reference Intakes (DRI), Report 6, Part 1: Energy, carbohydrates, and fiber,” ERNAHRUNGS-UMSCHAU, 2003.
11. J. W. Anderson, “High carbohydrate, high fiber diets for patients with diabetes.,” Adv. Exp. Med. Biol., 1979, doi: 10.1007/978-1-4615-9110-8\_38.