

Jenkins study does not refute BfR statement on the needlessness of diabetic foods

BfR Opinion Nr. 040/2009, 19 February 2009

In a new study, the Canadian researchers Jenkins et al.¹ again review the effects of diets for individuals suffering from diabetes mellitus type 2. In the study, the effects of a low-carbohydrate diet with a low glycaemic index (GI) compared with a diet high in dietary fibres on the health of patients were examined. 210 diabetics (diabetes mellitus type 2) received one of the two diets for six months. The risk factors for high blood glucose level and cardiovascular diseases were studied. From their results, the authors of the study conclude that GI diet has a positive effect on the development of the condition and prevents cardiovascular diseases.

The glycaemic index is a measure that determines the effect of a carbohydrate-containing food on the blood glucose level. This is based on the fact that different carbohydrates affect the blood glucose level in different ways. Thus, blood glucose reacts differently depending on whether whole milk or dark chocolate, cornflakes or oats, mashed or salted potatoes are consumed. Diabetes research therefore examines the varying blood glucose effects of foods. However, in research the significance of the glycaemic index or that of different carbohydrate-containing foods for the diet of diabetics remains disputed.

In past opinions, the Federal Institute for Risk Assessment (BfR) has assessed the necessity of diabetic foods from a nutritional physiological point of view. The Institute has come to the conclusion that these are unnecessary. Rather, diabetics should follow the same nutritional recommendations that healthy people follow. The BfR has therefore assessed the Jenkins study to see whether it is contrary to the BfR statement that diabetics do not need special foods.

From the BfR's view, it is not possible to deduce a scientifically based necessity for separate regulations for diabetic foods from the Jenkins study. The results of the study certainly emphasise the positive influence that the glycaemic index has on metabolic processes and the blood glucose level of diabetics after meals. The nutritional recommendations for diabetics valid in Germany and in Europe have advocated foods high in dietary fibre with a low glycaemic index for years. In this respect, there is no disagreement with the Jenkins study. Rather, a well-balanced diet rich in variety and dietary fibre as it is recommended for healthy individuals often also results in the desired low glycaemic index.

The Jenkins study leaves a few open questions. It sheds no light on whether the advantages of a diet with a low glycaemic index should be examined separately from dietary fibre since the criterion "low glycaemic index" alone is not enough to recommend foods that may, on the other hand, contain a lot of fat. In addition, how the glycaemic index is determined remains unclear; the index depends on many varying factors and there is no standardised classification as of yet. The BfR therefore does not consider the glycaemic index to be a suitable instrument based on which nutritional recommendations should be made.

¹ Jenkins DJ, Kendall CW, McKeown-Eyssen G, Josse RG, Silverberg J, Booth GL, Vidgen E, Josse AR, Nguyen TH, Corrigan S, Banach MS, Ares S, Mitchell S, Emam A, Augustin LS, Parker TL, Leiter LA. Effect of a low-glycemic index or a high-cereal fiber diet on type 2 diabetes: a randomized trial. JAMA. 2008 Dec 17; 300:2742-2753.

The full version of the BfR Information in German is available on
http://www.bfr.bund.de/cm/208/jenkins_studie_widerlegt_nicht_bfr_aussage_dass_diabetiker_lebensmittel_ueberfluessig_sind.pdf