PRESS RELEASE

**Type 2 Diabetes Prevention: Can Diabetes Risk Be Lowered by Consuming Whole Grain Products?**

**Numerous studies have shown that dietary behavior plays a role in the prevention of type 2 diabetes. In an umbrella review, scientists at the German Diabetes Center (DDZ) have systematically analyzed and evaluated the validity of studies on dietary factors and diabetes. High evidence for a reduced risk of diabetes could be demonstrated for a high intake of whole grain products (especially cereal fibers) and lower consumption of sugar-sweetened beverages and red meat (especially processed meats and bacon). The results were published in the *British Medical Journal*.**

**Düsseldorf (DDZ)** – Which dietary factors play a role in the prevention of type 2 diabetes? - And what is the validity of these study results? This is now summarized in a scientific review in the *British Medical Journal*. The research team led by Dr. Sabrina Schlesinger, head of the junior research group Systematic Reviews at the German Diabetes Center, conducted a comprehensive literature search on the role of diet and type 2 diabetes incidence. For this purpose, all meta-analyses (= summary of studies on a research question with a statistical consideration of the results) on this topic were systematically compiled and the validity of the study results evaluated. The following diets (e.g. Mediterranean diet, diet with reduced carbohydrate content), foods (e.g. whole grain products, fruit or vegetables), beverages (e.g. beverages containing sugar and coffee), nutrients (e.g. carbohydrates, fats), minerals (e.g. magnesium, iron) and vitamins (e.g. vitamin D, vitamin C) were examined.

A total of 153 study results identifying the association between dietary factors and type 2 diabetes were identified. High evidence of a reduced risk of diabetes has been demonstrated for high consumption of whole grain products, especially cereal fibers, and lower consumption of sugar-sweetened drinks and red meats, especially processed meats such as bacon. A moderate value was determined for 22%, a low for 60% and a very low for 14% of the correlations.

"This systematic review shows that the association between diet and type 2 diabetes has already been investigated in numerous studies and that diet plays a role in the prevention of type 2 diabetes. Nevertheless, there is uncertainty about the validity of many of these associations," explained Dr. Sabrina Schlesinger. Methodological aspects of the original studies pose a possible limitation. Since these were exclusively observational studies, certain sources of bias cannot be completely ruled out. "Other well-designed and validated studies investigating the relationship between dietary factors and type 2 diabetes are needed," said Dr. Sabrina Schlesinger.

**Original Publication:** Neuenschwander M, Ballon A, Weber KS, Norat T, Aune D, Schwingshackl L, Schlesinger S: Role of diet in type 2 diabetes prevention: umbrella review of meta-analyses of prospective observational studies. BMJ 2019. doi: <https://doi.org/10.1136/bmj.l2368>

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The German Diabetes Center (DDZ) serves as the German reference center for diabetes. Its objective is to contribute to the improvement of prevention, early detection, diagnosis and treatment of diabetes mellitus. At the same time, the research center aims at improving the epidemiological data situation in Germany. The DDZ coordinates the multicenter German Diabetes Study and is a point of contact for all players in the health sector. In addition, it prepares scientific information on diabetes mellitus and makes it available to the public. The DDZ is part of the Leibniz Association (Wissenschaftsgemeinschaft Gottfried Wilhelm Leibniz, WGL) and is a partner of the German Center for Diabetes Research (DZD e.V.).

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