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# Dietary Recommendations for Glioma: A Mini-Review

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## Abstract

**Purpose of review:** Glioma is the most common type of brain cancer, associated with a high mortality rate. Diet is one of the most modifiable factors that can influence the risk of various cancers, including glioma. While the relationship between diet and glioma has been explored in recent years, the number of studies in this area remains limited, and the findings are often controversial. Moreover, all existing studies are observational, which means they may be influenced by a range of confounding variables. In this mini-review, we aim to provide a comprehensive and informative overview of the dietary recommendations related to glioma that have been published to date.

**Recent findings:** Research suggests that adherence to healthy dietary patterns-such as the Mediterranean diet, Dietary Approaches to Stop Hypertension (DASH) diet, Mediterranean-DASH Intervention for Neurodegenerative Delay (MIND) diet, Paleolithic diet, high-protein dietary patterns, and vegetarian dietary patterns-may be associated with a reduced risk of glioma. These diets are rich in phytochemicals and antioxidants. Additionally, certain food groups, including fruits, vegetables, legumes, nuts, eggs, fresh fish, tea, and coffee, are emphasized for their protective effects against glioma. Conversely, adherence to unhealthy dietary patterns, such as the Western diet, or diets with high inflammatory potential, glycemic and insulinemic loads, and high consumption of grains (especially refined grains), processed meats, and processed fish, has been linked to an increased risk of glioma. Current studies suggest that following a healthy diet may reduce the odds of developing glioma. However, due to the limited number of studies and the observational nature of the existing research, further investigations with more robust designs, such as randomized controlled trials, are needed to clarify these associations.

**Keywords:** Brain tumor; Cancer; Diet; Food; Glioma; Review.