

Food Safety: Cancer Prevention Measures

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< Summary >

Food is essential for life and in promoting good health. However, in certain cases consumption of certain foods or excessive amounts of food can result in disease. In this paper, several issues on food and cancer prevention are discussed. The World Cancer Research Fund and The American Institute for Cancer Research have listed 10 items related to food safety and cancer prevention. Recently overweight has been one of the central issues of discussion and interest, even in Japan. Measures to reduce overweight should be considered in order to help reduce the chances of people developing cancer. In the area of cancer risk assessment, as it relates to the management of food and food-related substances, new methods are currently under development to assist in more accurate risk assessment. These include *in silico* screening methods, toxicogenomic methods, and *in vivo* alternative methods for carcinogenicity. Cancer risk assessment and management based on the non-linear theory of the genotoxic carcinogenicity should be reconsidered, since there is new evidence in this area. In addition, major efforts are necessary to train the specialists who will be involved in cancer risk assessment.