

research has been conducted on the physiological effects of diets rich in whole-grains. This article covers the definition of whole grains, epidemiological evidence, and possible mechanisms for cancer protection based upon the presence of fermentable carbohydrates, decreased transit time and increased stool weight, and antioxidants. This leads nicely into the next article, which focuses upon whole-grain products and antioxidants. Studies have indicated that the consumption of grains, fruits and vegetables is related to lower incidence of aging diseases, as they contain a variety of chemoprotective substances such as antioxidants. Specific areas covered in this article include the determination of antioxidant activity, and the antioxidant activity of fruits, vegetables, and grains.

A number of whole-grain foods and grain fibre sources are beneficial in reduction of insulin resistance and improvement of glucose tolerance. Dietary recommendations of health organisations suggest consumption of three servings per day of whole-grain foods. The next article discusses research using various grains and grain products (based on barley, corn, oats, rice, rye and wheat), effective in improving insulin resistance or lowering glycaemic index. The penultimate article discusses antioxidants in wheat-based breakfast cereals, specifically covering the identity of dietary antioxidants in wheat and the impact of their digestion. It is encouraging that the final article discusses the recommendations for the dietary intake of whole-grains, comparing recommended consumption levels (which are not based upon research data), with actual levels of consumption (in the US). This article highlights topics such as understanding the benefits, identifying whole-grain products, and their convenience and availability.

This informative publication provides a concise account of the scientific evidence for the health benefits of whole-grains and their derived products, and is therefore recommended to researchers with interests in such areas of nutrition and food science.

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Food Chemical Safety, Volume 1: Contaminants

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Ltd, Cambridge, UK, 2001, xiii + 322 pages, ISBN 1-85573-462-1, £135.00

In recent years, the scientific knowledge of contaminants has grown considerably. The food industry is well aware of food becoming chemically contaminated from various sources, such as pesticides, veterinary drug residues, food packaging and others and is thus a major concern. This volume put together by an international team of contributors reviews the many aspects of food contamination from its source to methods of control.

The opening chapter 1 of *Food Chemical Safety* introduces the reader into this field. Part 1 containing chapters 2–5 is based on analytical methods for detecting and analyzing contaminants. The chapters contain information on the risk analysis on establishing priorities and the quality control and selection of analytical methods. Other chapters discuss the molecular imprint-based sensors and bioassays in contaminant analysis. Part 2 containing chapters 6–11 focuses on particular contaminants. These include veterinary drug residues, inorganic contaminants, such as metals and nitrates, environmental organics, such as aromatic hydrocarbons, chemical migration from food packaging, pesticides, and mycotoxins. Part 3 addresses the regulation aspects of contamination internationally, in the EU and US in chapters 12–14.

This volume is well written and contains numerous references. It is recommended for a broad range of professional scientists wishing to consolidate and update their knowledge in areas of food safety.

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Instrumentation and Sensors for the Food Industry

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The food processing industry has become more advanced with developments in technology and efficient large scale processing plants. Today's customers expect quality in the