

UNDERSTANDING IRRADIATED GROUND BEEF

The sale of irradiated ground beef is now permitted in Canada, just as it has been in the USA since the year 2000. What is irradiated ground beef and what does this mean for you and the ground beef you enjoy?

As with any new technology, we all have questions and concerns, especially when it comes to our food. Just as pasteurization was introduced for milk a generation ago, irradiation is another food safety control.

The Government of Canada approved the use of irradiation as an additional food safety measure for fresh or frozen raw ground beef, after a detailed review of scientific data that began in 2001. Health Canada findings conclude that irradiation for ground beef is safe, effective, and does not significantly impact the nutritional quality of ground beef.

ABOUT FOOD IRRADIATION

Food irradiation is the process of exposing food to a controlled amount of energy in order to reduce bacteria or other organisms that can cause illness or encourage spoilage. This energy can be

sourced from ordinary electricity and has the advantage of not heating the food so fresh foods remain raw after treatment.

Food irradiation is used in over sixty countries for a variety of foods including meat, poultry, seafood, grain, eggs, seeds and spices, and fruits and vegetables. An important reason for using this process is that irradiation can control insect pests without the use of chemical fumigants. In Canada, onions, potatoes, wheat, and flour were approved for irradiation in the 1960's. Whole or ground spices and dehydrated seasonings were approved in 1984.

Irradiation is also widely used for sterilizing medical and household products such as food packaging, cosmetics, and contact lens solution.

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SAFETY AND EFFECTIVENESS OF IRRADIATION

The Government of Canada has reviewed the scientific data and considers irradiation of fresh or frozen raw ground beef to be both safe and effective. Irradiation of food has also been endorsed by many other public health agencies including the World Health Organization.

Used according to Canadian standards, irradiation does not significantly diminish the nutritional quality of the food.

Food irradiation will reduce or eliminate microorganisms that may be present in the food, including disease-causing bacteria. Food items that are irradiated do not become radioactive.

HOW IRRADIATION OF GROUND BEEF IS DONE

Ground beef is most commonly irradiated using the so called “e-beam method” which uses ordinary electricity. The equipment used is similar to that in older style (tube) televisions and is switched on and off as the meat is passed under an e-beam for a brief period of time. The energy from the irradiation process can reduce or eliminate *E. coli* O157 bacteria if they are present. Canadian requirements specify that ground beef be irradiated after it is packaged, after all food safety inspections are completed. As such, the ground beef remains in the package, untouched until purchased and unwrapped at home. Irradiation will not be used as a substitute for hygienic practices but as an additional food safety measure.

CHOOSING IRRADIATED GROUND BEEF

Irradiation of ground beef or any other food is not mandatory. There will be both irradiated and non-irradiated ground beef available to choose from at the store. Packages of ground beef that have been irradiated will be clearly marked with a radura symbol and label statement such as “treated by irradiation”. Irradiated ground beef will become more readily available once more widely adapted by processors. Irradiated ground beef should be handled, stored and cooked according to package label guidelines.



Canada Beef supports this food safety enhancement for ground beef as a valuable option to choose from. Based on thorough scientific review and proven benefits, irradiation for ground beef represents a step forward in food safety assurance for Canadians.

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Canada Beef strives to present the facts around nutrition, culinary and farming practices based on the most current scientific research and tests at hand. As research on these topics is ever changing, we monitor and update these topics as necessary. Recognizing that a healthy discussion is the best way for us all to grow knowledge and understanding, we welcome your comments and conversation.



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The Centre demonstrates Canada's commitment to world class standards of quality and safety.

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