



United States Department of Agriculture
Food Safety and Inspection Service

Food Safety Information



Irradiation and Food Safety

Answers to Frequently Asked Questions

The Food Safety and Inspection Service (FSIS) is the public health agency in the U.S. Department of Agriculture responsible for ensuring that the nation's commercial supply of meat, poultry, and egg products is safe, wholesome, and correctly labeled and packaged.

What is food irradiation?

Food irradiation is a technology for controlling spoilage and eliminating foodborne pathogens. The result is similar to pasteurization. The fundamental difference between food irradiation and pasteurization is the source of the energy used to destroy the microbes. While conventional pasteurization relies on heat, irradiation relies on the energy of ionizing radiation.

Food irradiation is a process in which approved foods are exposed to radiant energy, including gamma rays, electron beams, and x-rays. In 1963, the Food and Drug Administration (FDA) found the irradiation of food to be safe. Irradiation of meat and poultry is done in a government-approved irradiation facility. Irradiation is not a substitute for good sanitation and process control in meat and poultry plants. It is an added layer of safety.

Are irradiated foods safe?

Yes, irradiated foods are safe. Irradiation makes meat and poultry safer by reducing the numbers of harmful bacteria and parasites.

Food irradiation does not make foods radioactive. The radiant energy passes through the food. The food itself never contacts the source of the radiant energy. Irradiated foods are wholesome and nutritious. Nutrient losses caused by irradiation are less than or about the same as losses caused by cooking and freezing.

Public health agencies worldwide have evaluated the safety of food irradiation over the last fifty years and found it to be safe. In 37 countries more than 40 food products are irradiated. In some European countries, irradiation has been in use for decades.

In the United States, the Food and Drug Administration regulates food irradiation. In addition, food irradiation has received official endorsement from the American Medical Association, the World Health Organization, and the International Atomic Energy Agency.

What foods are irradiated?

The FDA first approved the use of irradiation in 1963 to kill pests in wheat and flour. To date, the FDA and the USDA have approved food irradiation for use on fruits, vegetables, spices, raw poultry, and red meats.

How will I know if meat and poultry products are irradiated?

Consumers cannot recognize irradiated food by sight, smell, taste, or feel. Irradiated foods can be recognized by the presence of the international symbol for irradiation on the packaging along with the words "Treated with Radiation," or "Treated by Irradiation."



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USDA Meat & Poultry Hotline
1-888-MPHotline
(888-674-6854)

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If irradiated meat is used in another product, such as pork sausage, then the ingredients statement must list irradiated pork, but the radura does not have to appear on the package.

Restaurants are not required to disclose the use of irradiated products to their customers; however, some restaurants voluntarily provide irradiation information on menus.

How should I handle irradiated meat and poultry?

Food irradiation is not a substitute for good sanitation and does not replace safe cooking and handling. Consumers should handle irradiated foods just like any other food and always follow safe food handling practices. Check your steps at FoodSafety.gov.

- **CLEAN.** Wash hands and surfaces often.
- **SEPARATE.** Separate raw meats from other foods.
- **COOK.** Cook food to the right temperature.
- **CHILL.** Refrigerate food promptly.

For more information on food irradiation and other food safety issues, contact USDA's Meat and Poultry Hotline at 1-888-MPHotline (1-888-674-6854) or visit www.fsis.usda.gov

Food Safety Questions?

Call the USDA Meat & Poultry Hotline

If you have a question about meat, poultry, or egg products, call the USDA Meat and Poultry Hotline toll free at **1-888-MPHotline (1-888-674-6854)**. The hotline is open year-round



Monday through Friday from 10 a.m. to 4 p.m. ET (English or Spanish). Recorded food safety messages are available 24 hours a day. Check out the FSIS Web site at

www.fsis.usda.gov.

Send E-mail questions to MPHotline.fsis@usda.gov.

Ask Karen!

FSIS' automated response system can provide food safety information 24/7 and a live chat during Hotline hours.



AskKaren.gov

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