

is reduced when eggs are irradiated. These differences are so small that there is no effect on the American diet.

What are the benefits of food irradiation?

Depending on the dose, irradiation can be used to sterilize, preserve, control sprouting, delay ripening, and prevent insect damage in food. It can also control foodborne illnesses.



Is food irradiation approved by the government?

Yes. The Food and Drug Administration has approved food irradiation. Irradiation is one of the most studied food technologies in U.S. history. Scientists with the FDA have evaluated many studies that show that irradiated food is safe and nutritious. Food irradiation has been approved for more than 60 foods in more than 40 countries.

Who endorses irradiation?

Many organizations support the irradiation of food, including:

American Dietetic Association
American Medical Association
Centers for Disease Control and Prevention
Institute of Food Technologists

U.S. Department of Agriculture
U.S. Food and Drug Administration
World Health Organization

Where can I get additional information about food irradiation?

Visit the following Web sites for more information.

American Dietetic Association
<http://www.eatright.org/adap0200.html>
Centers for Disease Control and Prevention
<http://www.cdc.gov/ncidod/dbmd/diseaseinfo/foodirradiation.htm>
U.S. Food and Drug Administration
<http://www.fda.gov/opacom/catalog/irradbro.html>
Center for Consumer Research
<http://ccr.ucdavis.edu>
Iowa State University
<http://www.extension.iastate.edu>
Institute of Food Science and Engineering
<http://ifse.tamu.edu>

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SAFER
food



with
irradiation

Why should I be interested in irradiating bacteria in food?

The Centers for Disease Control and Prevention has estimated that each year there are 76 million illnesses, 325,000 hospitalizations and 5,000 deaths due to foodborne illness. Even when meat, poultry and eggs are processed safely, they can contain harmful bacteria. Irradiation destroys 99.9 percent or more of *E. coli* O157:H7, *Salmonella*, *Campylobacter*, *Listeria*, and other harmful bacteria that may be in raw food.

Irradiation increases the shelf life and slows the ripening of some fresh foods. It can be used instead of chemical fumigation to preserve spices and herbs.



What is irradiation?

Irradiation is the exposure of fresh, raw food to ionizing energy for a specific length of time. Irradiation compliments good manufacturing and processing practices and increases overall food safety.

Food is irradiated in a special facility where it is exposed to an electron beam or X-ray generated from electricity, or to gamma rays produced from cobalt 60. Careful monitoring ensures that the food receives the prescribed amount of irradiation to destroy harmful bacteria.

Is irradiated food safe?

Yes. Irradiated food is safe and wholesome. Based on hundreds of studies, the U.S. Food and Drug Administration (FDA), the U.S. Department of Agriculture (USDA), and health organizations such as the World Health Organization, the American Medical Association, and the American Dietetic Association have endorsed the safety of irradiated food.

Does irradiation cause cancer or other health problems?

No. The FDA has evaluated irradiation for 40 years and found the process to be safe. Many scientific studies have confirmed that irradiated food is not toxic and causes no health problems. Astronauts have eaten irradiated food since the beginning of the space program without any health consequences.

Does irradiation make food radioactive?

No. During the irradiation process, food moves through an energy field but never touches the energy source and does not become radioactive. The amount of energy used to irradiate food is enough to kill harmful bacteria but it does not make the food radioactive, just as luggage does not become radioactive after passing through an airport luggage scanner.

Many common items such as cotton balls, adhesive bandages, baby bottles and medical supplies are irradiated for safety and none of these become radioactive.

How do I know food has been irradiated?

Irradiated food has a distinctive logo. This symbol is known as the "Radura." The words "treated by or with irradiation" or "irradiated for food safety" also appear on packages of irradiated food.



Do I handle irradiated food differently than other foods?

No. Handle irradiated food as you would any other perishable food. Perishables, such as meat and poultry, must be refrigerated to slow the growth of spoilage bacteria. And remember that irradiated food can still become contaminated during preparation, so keep hands and utensils clean.



If thorough cooking destroys harmful bacteria, what is the advantage of irradiated meat and poultry?

Irradiation destroys harmful bacteria before they come into the kitchen. Eating irradiated food should reduce the foodborne illness that results from cross contamination or improper cooking. Irradiation gives consumers an extra level of protection.

Is irradiated food still nutritious?

Yes. Irradiated food is nutritious and flavorful. Nutritional changes produced by irradiation are no different than those produced when food is cooked or frozen. Thiamin is reduced when pork is irradiated, and some vitamin A