

# IRRADIATED FOOD

**Not Safe Enough for School Lunches!**



## **What is Food Irradiation?**

Irradiation is the process by which food is exposed to high doses of ionizing radiation—the equivalent of up to 1 billion chest x-rays. Irradiation is used to kill bacteria and extend the shelf life of food, but it also destroys vitamins and creates new chemical compounds, some of which are suspected to cause cancer and other serious health problems. The Food and Drug Administration (FDA) allows many kinds of food, including eggs, fruits, vegetables, beef, poultry, lamb, pork and spices, to be irradiated. However, only irradiated spices and ground beef are commonly sold in supermarkets. Under industry pressure, in January 2004, the U.S. Department of Agriculture (USDA) began offering irradiated ground beef to schools participating in the National School Lunch Program.

## **Irradiated Food has Not been Proven Safe to Eat.**

Research dating from the 1950s has revealed that animals fed irradiated foods develop a wide range of health problems, including premature death, fatal internal bleeding, a rare form of cancer, stillbirths and other reproductive problems, mutations and genetic damage, organ malfunctions, stunted growth, and vitamin deficiencies. [WHO, Sipher, PC1] When food is irradiated, new chemical byproducts are formed. Some of these compounds do not occur naturally in food, and recent studies have linked one class of irradiation byproducts, called cyclobutanones, with genetic damage and the promotion of tumor growth. [RPC]

Although these studies suggest that irradiated food may not be safe enough for anyone to eat, we should be especially concerned about the harm that toxic chemical byproducts like cyclobutanones might cause children. Children are more susceptible to toxic substances in their environment because they eat, drink and breathe three times as much as adults, pound for pound. Yet there has been very little research into the long-term health effects experienced by children exposed to toxic chemicals in food. [Au]

## **Irradiated Food is Unhealthy and Can Still be Contaminated.**

In addition to potentially causing diseases including cancer, irradiation strips food of its nutritional value. For instance, although FDA scientists recognize that irradiation can destroy up to 80 percent of vitamin A in eggs and 48 percent of beta carotene in orange juice, the agency still legalized irradiation for these products. [FDA]

It is a mistake to accept food irradiation as a solution to food contamination problems caused by unsanitary meat and poultry plants. Irradiation may kill most bacteria in food, but it does nothing to remove feces, urine, pus and vomit that often contaminate beef, pork, chicken, and other meat. [PC2] The solution to meat contamination is to slow down slaughter lines and strengthen government meat inspection, not to zap the bacteria with radiation at the end of the line.

Also, irradiation does not prevent many food-borne illnesses. For instance, irradiation does not kill the pathogen that causes mad cow disease, and it also cannot kill viruses such as hepatitis. [PC3, USDA]

## **Irradiation Facilities Threaten Public Health & Safety.**

Serious risks are associated not just with irradiated food, but also with the facilities where food is irradiated. For example, radioactive materials such as Cobalt-60 must be transported thousands of miles in order to supply irradiation facilities. The irradiation industry has a record of accidents and mistakes that has injured workers and required expensive taxpayer-funded cleanups.[PC4]

**BE SAFE: Take Preventive Action  
To Keep Irradiated Food out of School Lunches**

# BE SAFE's FOUR PRINCIPLES

## 1. HEED EARLY WARNING SIGNS

We must heed early warnings signaling that irradiated food is dangerous to human health. Animals fed irradiated food have developed a wide range of health problems. Also, research suggests that at least one of the chemical byproducts of irradiation promotes the growth of cancer. The Food and Drug Administration (FDA) has not adequately studied the safety of these chemicals. Finally, there is a shocking lack of research on the long-term health effects of eating irradiated food. Given these concerns, as well as the knowledge of children's heightened susceptibility to toxins, we should keep irradiated food out of school lunches.

## 2. PUT SAFETY FIRST

Until 2002, the USDA prohibited the use of irradiation for food it purchased for nutrition programs. In May 2003, despite thousands of comments from parents, teachers, students and concerned citizens who opposed the purchase of irradiated food for the National School Lunch Program, the USDA chose to include irradiated ground beef as an option in the federal nutrition programs. We must work with state and local officials, as well as with local school boards, to ensure that our children are not fed this irradiated meat as a part of their school lunches. When the Los Angeles School Board acted to ban irradiated foods, it stated, it is "ludicrous" for children to be used as a test group for eating irradiated foods, when the long-term health effects are unknown.

## 3. EXERCISE DEMOCRACY

Food service directors and school officials in each district can choose whether or not to purchase irradiated ground beef for their schools. Non-irradiated options still exist, and the non-irradiated ground beef is actually cheaper than irradiated meat. Concerned parents, teachers, and community members should work with local officials and school boards to ensure that only non-irradiated meat is bought.

Current FDA rules only require that irradiated food sold in stores be labeled. Labeling is not required in restaurants, hospitals, schools, or by caterers or other food service providers. Processed food, such as baby food, also does not have to be labeled when its ingredients are irradiated. Furthermore, under pressure from the food industry, the FDA is considering weakening the requirements to allow euphemisms like "pasteurization" to be used on irradiated foods. We must tell Congress and the FDA to continue requiring the labeling of irradiated food, and also to strengthen current food-labeling laws so that consumers always know whether food has been irradiated. People have a right to choose whether or not to expose themselves and their children to such questionable technology.

## 4. CHOOSE THE SAFEST SOLUTIONS

- **Work with your school board to pass a resolution banning irradiated food.** To learn about how concerned citizens have gotten school boards to ban irradiated beef, and to get started working with your school board, contact Monique Mikhail of Public Citizen at [mmikhail@citizen.org](mailto:mmikhail@citizen.org), (202)454-5185 or download an organizing kit at: <http://www.citizen.org/documents/schoollunchactivistpacket2.pdf>.
- **Preserve Parents' Right-to-Know.** Representative Barbara Lee (D-CA) has introduced the "Right to Know School Nutrition Act" (H.R. 3120) This bill would require schools to give parents and students information on irradiation, to clearly label menu items that have been irradiated, and to ensure that non-irradiated meals are always available. Contact your members of Congress and ask them to co-sponsor this important piece of legislation. You can write to them here: <http://www.house.gov/writerep/>.
- **Fight for Clean Food That Doesn't Have to Be Irradiated.** Tell your federal officials to strengthen meat inspectors' authority inside meat plants.
- **Create a Farm-to-School Program.** School districts around the country are partnering with family farms to serve local, farm-fresh produce in their cafeterias. To find out more, visit the website for the Community Food Security Coalition [http://www.foodsecurity.org/farm\\_to\\_school.html](http://www.foodsecurity.org/farm_to_school.html), and Food Routes <http://www.foodroutes.org/farmtoschool.jsp>.
- **BE SAFE.** Take precautionary action to protect our children from irradiated food. Sign on to the BE SAFE Platform on the next page. Be counted when we deliver this national Platform to the White House in 2005. Endorse the BE SAFE Platform today at [www.besafenet.com](http://www.besafenet.com).
- **Your vote counts.** The next election will set the country's course on food irradiation and general food safety policies. For information on state and federal food safety voting records, visit <http://whistler.sierraclub.org/votewatch/>. To register to vote, contact [www.earthday.net](http://www.earthday.net).

### Communities Put Safety First & Keep Irradiated Food out of School Lunches

Parents, teachers, and public-interest groups have worked hard to convince school boards not to buy irradiated beef from the USDA's National School Lunch Program. Already four school districts in California (Los Angeles, Berkeley, Ukiah, and Point Arena) have banned irradiated foods from their cafeterias. An L.A. School Board Member, Julie Korentstein, stated "This vote sends an important message: the health of our children comes first...Because there are real questions about the health impacts of irradiated foods, we will not compromise the mission of protecting and educating children by allowing them to eat irradiated meat."

Many other districts have said that they will not serve irradiated meat but have not yet passed formal bans. These districts include Boston; New York City; San Diego and Sonora, CA; Cleveland, North Olmstead and Orange, OH; and Sauk Rapids, Willmar and Spring Lake Park, MN. USDA is encouraging—but not requiring—schools to notify parents if they are serving irradiated food. So it is still worth getting your local school system to enact a formal ban, to ensure that these systems continue to do the right thing.

**References:** Schubert, J. "Mutagenicity and cytotoxicity of irradiated foods and food components." Bulletin of the World Health Organizations, 41: 873-904, 1969 [WHO]; Sipher, A.T. "Food Irradiation: An FDA Report." [Sipher] FDA Papers, October 1968; *A Broken Record: How the FDA Legalized and Continues to Legalize Food Irradiation without Testing it for Safety*. Washington, D.C.: Public Citizen, Cancer Prevention Coalition, Global Resource Action Center for the Environment, October 2000. [PC1]; Delinnee, H. and Pool-Zobel, B. *Genotoxic properties of 2-dodecylcyclobutanone, a compound formed on irradiation of food containing fat*. *Radiation Physics and Chemistry*. 52: 39-42, 1998. [RPC]; Dr. William Au, University of Texas Medical Branch [Au]; FDA Memorandum, from Kim Morehouse, Ph.D. to William Trotter, Ph.D. April 11, 2000; FDA Memorandum, from Antonio Mattia, Ph.D. to William Trotter, Ph.D. November 2, 1999. [FDA]; Public Citizen, *Top Ten Problems with Irradiated Food*, [www.citizen.org/documents/Top10.pdf](http://www.citizen.org/documents/Top10.pdf); [PC2] Public Citizen, *FDA Failed to Follow Safety Rules Before Legalizing Irradiated Food*, <http://www.citizen.org/pressroom/release.cfm?ID=542> [PC3]; USDA, Bovine Spongiform Encephalopathy (BSE), [USDA] available at: <http://www.aphis.usda.gov/lpa/issues/bse/bse-overview.html> and; Public Citizen's Critical Mass, Energy and Environment Program, *The Dangers of Irradiation Facilities*, [http://www.citizen.org/documents/Accidents\(PDF\)](http://www.citizen.org/documents/Accidents(PDF)) [PC4].

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# ***BE SAFE Platform***

*In the 21st century, we envision a world in which our food, water and air are clean, and our children grow up healthy and thrive. Everyone needs a protected, safe community and workplace, and natural environment to enjoy. We can make this world vision a reality. The tools we bring to this work are prevention, safety, responsibility and democracy.*

*Our goal is to prevent pollution and environmental destruction before it happens. We support this precautionary approach because it is preventive medicine for our environment and health. It makes sense to:*

- *Prevent pollution and make polluters, not taxpayers, pay and assume responsibility for the damage they cause;*
- *Protect our children from chemical and radioactive exposures to avoid illness and suffering;*
- *Promote use of safe, renewable, non-toxic technologies;*
- *Provide a natural environment we can all enjoy with clean air, swimmable, fishable water and stewardship for our national forests.*

*We choose a “better safe than sorry” approach motivated by caution and prevention. We endorse the common-sense approach outlined in the BE SAFE’s four principles listed below.*

## ***Platform Principles***

### **HEED EARLY WARNINGS**

Government and industry have a duty to prevent harm, when there is credible evidence that harm is occurring or is likely to occur—even when the exact nature and full magnitude of harm is not yet proven.

### **PUT SAFETY FIRST**

Industry and government have a responsibility to thoroughly study the potential for harm from a new chemical or technology before it is used—rather than assume it is harmless until proven otherwise. We need to ensure it is safe now, or we will be sorry later. Research on impacts to workers and the public needs to be confirmed by independent third parties.

### **EXERCISE DEMOCRACY**

Precautionary decisions place the highest priority on protecting health and the environment, and help develop cleaner technologies and industries with effective safeguards and enforcement. Government and industry decisions should be based on meaningful citizen input and mutual respect (the golden rule), with the highest regard for those whose health may be affected and for our irreplaceable natural resources—not for those with financial interests. Uncompromised science should inform public policy.

### **CHOOSE THE SAFEST SOLUTION**

Decision-making by government, industry and individuals must include an evaluation of alternatives, and the choice of the safest, technically feasible solutions. We support innovation and promotion of technologies and solutions that create a healthy environment and economy, and protect our natural resources.

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### **Take precautionary action to protect our children from irradiated food. Sign onto the BE SAFE Platform.**

Be counted when we deliver this national platform to the White House in 2005. Endorse the platform today at [www.besafenet.com](http://www.besafenet.com)

BE SAFE is coordinated by the Center for Health, Environment & Justice. To sign the platform or for more information, contact us at CHEJ, P.O. Box 6806, Falls Church, VA 22040, 703-237-2249, or 518-732-4538, or visit [www.besafenet.com](http://www.besafenet.com)

