The United States has allowed the Irradiation of Meat. Is this meat safe for human consumption, as some meat industries in the United States claim?

This is such an interesting question asked of me from a reader of one of my columns that I decided to turn it into a piece. We need to talk about the diseases that meat has and why the United States has to resort to this extreme form for decontamination of meat. It is a dangerous process; a technician can get cancer - the same as standing in an X-ray room while the machine is on. (This is how it is done: At a food irradiation plant that uses gamma radiation, food is irradiated in an area that is surrounded by concrete walls at least 6-feet thick which keep any rays from escaping.

The radiation source, usually Cobalt 60, is held in a resting position in a pool of water. A conveyor system transports the meat or poultry product to the area. The radiation source is then raised out of the water and the food is exposed for a defined period of time. When the source is raised, lights and alarms are sounded to make people aware that the product is being irradiated. Once the food is irradiated, the source automatically returns to the resting position and the food leaves the area for further processing.)

Why is this relevant in India? Because all meat is 10 times more contaminated. Because Delhi has 30,000 meat related deaths every year. Because if you take the total of all the deaths caused by meat eating every year they will be over several lakh - certainly more than what poverty and hunger kills. Irradiation will never come to India - it is too expensive for a country that has not even got X-Rays in most of its hospitals so that is not what you should worry about. Just consider the reasons for this drastic move.

The Food and Drug Administration (FDA), and the U.S. Department of Agriculture (USDA) gave irradiation for all meat (poultry, turkey, beef, mutton, pork, lamb, veal) the go-ahead in 2000. In 1985, FDA approved irradiation for the control of Trichinella spiralis (which causes trichinosis or hookworm related disease which is common in India) in pork. In 1992, USDA's Food Safety and Inspection service approved the use of irradiation in raw packaged poultry.

This process has been clouded by controversy for years. Whether or not meat processors and the public will accept irradiation is another question. As of now, each irradiated packaged meat has to carry a special label on it called Radura.

Irradiation exposes food to a high dose of gamma rays, to reduce or eliminate harmful bacteria, such as E. coli or Salmonella. This move has taken place because the United States has had so many meat related illness outbreaks over the past decade that the meat industry itself has asked for this procedure.

Food borne diseases cause 76 million illnesses, 325,000 hospitalizations, and 5,000 deaths in the U.S. every year. The salmonella and ecoli rates have gone up from the 1940s to the 1990s. One in four Americans sickened some time during the year with meat-borne illness. Here are some of the disease out-breaks:

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E. coli outbreak from contaminated hamburgers purchased at outlets of the Jack-in-Box fast food chain killed four children and sickened 600 in 1993.

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E. coli contamination in ground beef at one Hudson Beef plant in 1997 led to the largest food recall in history with over 10 million tonnes being burnt.

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The Chicago Tribune ran a four-part series a couple of months ago about children who'd been made ill by contaminated food in school lunches over a period of several years in Chicago.

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1999 had Sizzler E.coli 0157:H7 outbreak, where contaminated meat dripped on fresh vegetables and one person died and a number were made ill.

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There was the Ball Park Franks listeria outbreak three years ago, where 16 people died, and five women had babies that were born dead, because it was fatal for fetuses.

Why has the meat industry itself begged the Government to bring in irradiation? Because American slaughterhouses are filthy , because sick animals are killed illegally, because animals are transported and dragged in for killing in a filthy manner , because the people in most slaughterhouses are either illegal labour brought from Mexico or totally illiterate farmhands who spit an urinate on the meat , do not wash after defecation, step on the meat after cutting it etc. (Absolutely identical behaviour has been found in all Indian slaughterhouses) Therefore the meat is contaminated with every possible germ. But instead of putting in money to improve the slaughterhouses, this way meat irradiation allows the food industry to continue to sell dirty, contaminated products to the public without cleaning up their practices. E. coli, a deadly pathogen present in meat, naturally occurs in cattle intestines and only contaminates food when feces spill into meat during slaughter and processing. Irradiated food is still contaminated, the contamination is merely sterilized. Do American consumers really want to eat "clean" feces on their hamburgers?

The Meat industry says that irradiated meat reduces the risk of food borne illness by destroying harmful bacteria, parasites, insects, and fungi. However even they admit that it does not destroy all pathogens in raw meat and poultry but only reduces their number. According to the University of Kansas you only need 10 bacteria to get very sick.

When the animals arrive at the slaughterhouse in trucks and trains, they are covered in their own manure. They've been sleeping in it and standing in it. No matter what is done, a lot of that manure will remain in the meat. This manure is particularly lethal, because it contains microbes like E. coli O157 is a strain of a common intestinal bacteria . And if we ingest only 10 of those bacteria, they can kill us, because they release this lethal toxin. Even vegetarians get sick from cross-contamination. Other deadly diseases are listeriosis, cholera and campylobacter (which is lethal and which has hundreds of victims in India so far, specially in Kerala) Salmonella, campylobacter and ecoli 0157:H7 live in the intestinal tract of animals, and consequently, they tend to get on meat or chicken during the slaughter process. Listeria is an environmental microorganism which lives lives in water droplets on the ceiling and in the drains on the floor of slaughterhouses and milk and cheese processing centres. They are particularly nasty because they produce certain types of toxins that cause bad things to happen in humans. It can cause kidney failure; it can do bad things to your red blood cells. If you get infected with E. coli O157:H7, there is a possibility that you could develop what we call hemolytic uremic syndrome, which can be, in some instances, a fatal illness.

Is irradiated food safe to eat? Who knows? It has not been tested over a sufficiently long period. Slaughterhouses all over the world have broken every hygiene law – especially in the states where they are run by mafia. There is no reason to believe that an attached irradiation plant will

follow the rules.

Look at Indian slaughterhouses. The best is supposed to be Idgah in Delhi. When I went to court against it, we showed the film that had been taken secretly. Animals standing in filth, throats cut in the open and then animals piled on each other to die in knee high piles of faeces, urea and blood, butchers who defecated while working, no vets present, animals that could not walk because they had their legs broken being dragged by their tails and beaten to death, overflowing drains outside, children under 8 years old forming 30% of the workforce. Medical tests showed that all the butchers had tuberculosis, that 90% of the animals were already sick with disease before they were killed. A slaughterhouse that had space for only 800 animals to be killed a day, was killing 30,000. We won the case. For three years Idgah behaved itself. Now it is back to the same conditions. And this is true of every single private or government slaughterhouse. Even the khokha in your town that kills animals on the roadside has these problems. All these germs settle into you and fester till they break out into a disease.

The question is: is meat safe to eat. And the answer is an unequivocal NO. In no form, no matter what has been done to it.

Maneka Gandhi