

# Irradiation underused to fight E. coli in foods

June 6 2011, By LAURAN NEERGAARD , AP Medical Writer

---



A farm worker empties cucumbers into a container after failing to sell them due an ongoing food crisis in Europe, in Carquefou, western France, Monday, June 6, 2011. The current crisis is the deadliest E. coli outbreak in modern history, and the outbreak is being blamed on a highly aggressive, "super-toxic" strain of E. coli. (AP Photo/Jacques brinon)

(AP) -- Zapping salad fixings with just a bit of radiation can kill dangerous E. coli and other bacteria - and food safety experts say Europe's massive outbreak shows wary consumers should give the long-approved step a chance.

The U.S. government has OK'd [irradiation](#) for a variety of foods - meat, spices, certain imported fruits, the seeds used to grow sprouts. Even iceberg lettuce or spinach can be irradiated without the leaves going limp. And no, it doesn't make the food radioactive.

But sterilized [leafy greens](#) aren't on the market, and overall sales of irradiated foods remain low. A disappointed [Grocery Manufacturers Association](#) says one reason is that sellers worry about consumer mistrust.

"We need to do whatever we can to give us a wider margin of safety," says Dr. Michael Osterholm, a University of Minnesota infectious disease specialist who frequently advises the government. "Food irradiation for a number of produce items would give us not just a marginal increase, but give us probably the Grand Canyon increase of safety."

The source of the E. coli strain in Europe hasn't been pinpointed. [Health authorities](#) have warned consumers there not to eat any type of sprout, the newest suspect, but also say to avoid tomatoes, cucumbers and lettuce until the mystery is solved.

The U.S. has faced its own spate of tainted produce in recent years, with E. coli, salmonella, [listeria](#) and other bugs linked to lettuce, spinach, hot peppers, sprouts, cantaloupes and more.

The outbreaks have renewed interest in higher-tech fixes like irradiation, used in certain foods in the U.S. and parts of Europe. Irradiation zaps food with electron beams, like the kind long used to run TVs, or with gamma rays or [X-rays](#). It's the same way numerous medical products are sterilized.

The [Food and Drug Administration](#) approved irradiation for raw spinach

and lettuce three years ago, saying it safely killed germs and lengthened shelf life without harming texture, taste or nutrients. But it didn't catch on, and the grocery producers group, which wants more salad ingredients OK'd for irradiation, blames both consumer wariness and a technical issue. Some of the bags the greens are sold in need approval to be zapped, too.

Irradiated meat has been around for years, particularly ground beef that is a favorite hiding spot for E. coli. About 15 million to 18 million pounds of U.S. ground beef are irradiated every year, says Ron Eustice of the Minnesota Beef Council. That's a tiny fraction of the nation's hamburger, and it must be labeled so consumers can choose - although some retailers advertise irradiated hamburger as a safety selling point. Thorough cooking kills E. coli and other germs, but people don't always get their meat hot enough.

Still, Americans get more irradiated foods than they realize. About a third of commercial spices - the kind added to processed foods - are irradiated, says Eustice, who's also a consultant to the Food Irradiation Processing Alliance.

About 30 million pounds of imported produce, mostly fruits such as guavas and mangos, get a low-dose zap, not enough to kill germs but to kill any foreign insects along for the ride.

As for those seeds used to grow recall-prone raw sprouts, Eustice says irradiation hasn't caught on for them either, despite government research backing it. Some growers instead try washing seeds in a mild bleach solution.

The newest irradiated product is pet treats, about 40 million pounds and counting, Eustice says. It's to combat the problem of salmonella-tainted dog chews.

Irradiation isn't an excuse for dirty produce, Osterholm says. It's far better to prevent contamination on the farm or in the processing plant than to try to get rid of it later. But it's impossible to prevent all animal-borne bacteria in open fields.

There's no reason to fear irradiation but "there's no silver bullet here," cautions food-safety expert Caroline Smith DeWaal of the Center for Science in the Public Interest. Irradiation doesn't kill viruses that also sometimes taint food, and it adds to the food's price. She says consumers' biggest desire: Make cleaner food in the first place.

Nor is irradiation the only high-tech option. Scientists also are trying high-pressure treatment to literally squeeze away germs. It's been used for fresh guacamole and raw oysters. Earlier this year, beef giant Cargill Inc. announced it was using the technology for a longer-lasting hamburger patty.

©2011 The Associated Press. All rights reserved. This material may not be published, broadcast, rewritten or redistributed.

Citation: Irradiation underused to fight E. coli in foods (2011, June 6) retrieved 10 May 2024 from <https://medicalxpress.com/news/2011-06-irradiation-underused-coli-foods.html>

<p>This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.</p>
--