

# Plastic-tac-toe

**Claim:** Research has proved that microwaving foods in plastic containers releases cancer-causing agents into the foods.

**Status:** *False.*

## **Origins:**

This Microwave "health alert" began appearing in people's inboxes in February 2002; the "Channel 2" reference indicates it was someone's summarization of a short morning news health segment aired on KHON-TV in Hawaii on 23 January 2002, which was then forwarded all over the Internet as "important health information." One- or two-minute health spots on local news programs are not ideal sources of medical information, however. While important basic information can be imparted in such a format, trying to explicate complex medical topics in a minute or two can easily mislead or confuse viewers, many of whom come away believing absolutely whatever they've heard (or think they've heard) because "a doctor on TV said it was true" — in this case an unshakeable belief that using plastic containers in microwave ovens causes cancer.

That a doctor (or, more accurately, someone bearing the title "Dr.") appears on TV does not mean he's a leading practitioner in his field; it generally means only that he has something to say that a news director considers newsworthy, accurate or not. (The "Dr. Edward Fujimoto" identified in this piece is not a staff physician from "Castle Hospital" or a medical doctor; he's a Ph.D. serving as director of the Center for Health Promotion at Castle Medical Center in Kailua, Hawaii.) What TV news covers is dictated by ratings, not importance, and sensational claims get better ratings than straightforward, mundane information, even if the latter is more valuable to the viewing audience. It's a pretty good assumption that if using plastic containers in microwaves — as millions of people have been doing for decades — posed a significant risk of cancer, you'd be hearing about it somewhere other than an e-mail forward of an anonymous summary of a morning news spot on a Hawaiian television station.

Is there really something to the central claim of this e-mail, that heating plastic in microwaves releases a cancer-causing agent into the food? It's within the realm of possibility that substances used during the manufacturing process of plastics could leak into food during the heating process, but research isn't conclusive about the potential for danger (if any) posed by such a phenomenon, and the FDA already imposes stringent regulations on plastic containers meant for microwaving as a preventive measure.

Dr. Rolf Halden of the Johns Hopkins Bloomberg School of Public Health advises:

*In general, whenever you heat something you increase the likelihood of pulling chemicals out. Chemicals can be released from plastic packaging materials like the kinds used in some microwave meals. If you are cooking with plastics or using plastic*

*utensils, the best thing to do is to follow the directions and only use plastics that are specifically meant for cooking. Inert containers are best, for example heat-resistant glass, ceramics and good old stainless steel.*

As for concerns about dioxins being released by freezing water in plastic bottles, Dr. Halden says:

*This is an urban legend. There are no dioxins in plastics. In addition, freezing actually works against the release of chemicals. Chemicals do not diffuse as readily in cold temperatures, which would limit chemical release if there were dioxins in plastic, and we don't think there are.*

**Source:**

<http://www.snopes.com/medical/toxins/cookplastic.asp>, Urban Legends Reference Pages, April 3, 2007, Barbara and David P. Mikkelson