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Heart to Heart

With Philip S. Chua, M.D.

Cancer Scare From Plastics

A cancer scare being widely circulated, allegedly from Johns Hopkins and Walter Reed Army Medical Center, warns the public that: (A) “Plastic containers or plastic wraps and bags release dioxin, a carcinogenic (cancer-producing) chemical, which contaminates the food items in contact with them, either on the countertop, in the microwave oven, or in the refrigerator or freezer...and (B) that frequent exposure to dioxin increases the incidence of cancer, heart disease, diabetes, and reproductive and developmental problems.”

The Medical Fact

While statement B about the effects of frequent exposure to dioxin is a fact, there is no truth that water stored in plastic bottles in the refrigerator or freezer releases dioxin. This is an old wives’ tale, a hoax. There is NO dioxin in plastics, for one thing. And cooling or freeing slows down any chemical process, says Rolf Halden, PhD, PE, assistant professor at Johns Hopkins Bloomberg School of Public Health, and an expert on dioxins.

Dr. Halden also clarifies where dioxins come from: “We always thought dioxins were man-made compounds produced inadvertently during the bleaching of pulp and manufacturing of pesticides like Agent Orange and other chlorinated aromatics. But dioxins in sediments from lakes and oceans predate these human activities. It is now generally accepted that a principal source of dioxins are various combustion processes, including natural events such as wild fires and even volcanic eruptions.”

He added that “today, the critical issue is the incineration of waste, particularly the incineration of hospital waste, which contains a great deal of polyvinyl chloride plastics and aromatic compounds that can serve as dioxin precursors. One study examined the burning of household trash in drums in the backyard. It turns out that these small burnings of debris can put out as much or more dioxins as a full-sized incinerator burning hundreds of tons of refuse per day.”

Dr. Halden further explained that “the incinerators are equipped with state-of-the-art emission controls that limit dioxin formation and their release into the environment, but the backyard trash burning does not. You set it ablaze and chemistry takes over. What happens next is that the dioxins are sent into the

atmosphere where they become attached to particles and fall back to earth. Then they bind to, or are taken up, by fish and other animals, where they get concentrated and stored in fat before eventually ending up on our lunch and dinner plates. People are exposed to them mostly from eating meat and fish rich in fat.”

How about plastic wares and wraps in a microwave? Dr. Halden has this to say: “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. Some drinking straws say on the label ‘not for hot beverages.’ Most people think the warning is because someone might be burned. If you put that straw into a boiling cup of hot coffee, you basically have a hot water extraction going on, where the chemicals in the straw are being extracted into your nice cup of coffee. 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.”

So, for those who are concerned anyway, in spite of reassurances from the US-FDA and experts that there are no dioxins in plastics, the alternative is to use glass, ceramic containers and covers for food or drinks. TV dinners, instant cup noodles, or soups should be removed from their original styrofoam or plastic containers and heated in glass or ceramic wares, in a microwave, or stainless steel over a conventional stove. This will eliminate any doubt and give us peace of mind.