## What Was Harvard Health Thinking?



Steven Hentges, Ph.D Monday, December 14, 2020 Posted in SAFETY

A few days ago Harvard Health published in its online newsletter a <u>short article</u> with the tantalizing title "BPA now linked to premature death." The article briefly describes a <u>recently published study</u> on BPA claiming that result.

The author of the article and the newsletter apparently didn't carefully examine the study to assess whether it actually supported their title, or at least didn't understand the significant limitations of the study. With BPA being one of the most rigorously tested substances in commerce, we can readily assess if the title is supported by scientific data or even scientifically plausible.

From numerous studies on humans, we know that exposure to BPA is extremely low. One of the more prominent and largest exposure studies is the National Health and Nutrition Examination Survey (NHANES) conducted in the U.S. by the Centers for Disease Control and Prevention (CDC). In these studies exposure is measured by analysis of single spot samples —urine in the case of BPA.

Results for BPA exposure reported by NHANES are consistent with results from similar <u>studies conducted around the world</u>. The results from all of these studies show that exposure to BPA is well below safe exposure limits set by government bodies worldwide.

We also know from studies on humans and laboratory animals that after exposure, BPA is converted to biologically inactive metabolites that are rapidly eliminated from the body in urine. From <u>studies on human volunteers</u> we know that the half-life of BPA in the body is only a few hours before elimination.

It is this characteristic alone that makes the Harvard Health headline and the conclusion of the recent study highly implausible. The recent study used NHANES data as the source of human exposure and recorded mortality long after exposure and elimination of BPA occurred, by a median of 9.6 years!

It is essentially impossible to imagine how any health effect for BPA could plausibly be associated with exposure that occurred almost 10 years earlier. It may be mathematically possible to associate a chronic health effect with a BPA exposure that occurred many years earlier, but that doesn't mean the mathematical association is scientifically plausible.

This is not the first time that such implausible results have been reported, and it probably won't be the last time. Nevertheless, other researchers are aware of the issue and have published their views in the scientific literature. For example, the title of one <a href="recent\_publication">recent\_publication</a> is particularly relevant to the case at hand: "Use of NHANES Data to Link Chemical Exposures to Chronic Diseases: A Cautionary Tale."

For well-founded scientific reasons, you need not be concerned about the title of the recent Harvard Health article. There is no reliable scientific basis to conclude that BPA has anything to do with premature death. The best advice regarding BPA comes from a <u>Q&A</u> on the U.S. Food and Drug Administration website: "Is BPA safe? Yes."