

Webinar Highlights

Protecting Brain Development in Children: Phthalates in Food & the Critical Need for Policy Reform

Pre-natal and childhood exposures to phthalates have been found to adversely affect child brain development, including increased risk of ADHD and lowered IQ. Young children, babies, and pregnant mothers are the most susceptible to adverse effects of phthalates. Phthalates are also associated with well-known harms to male reproductive tract development and are linked with female reproductive harms. The widespread use of phthalates in food production/packaging and consumer products exposes people everywhere to these chemicals. Many phthalates are banned from use in children's toys and childcare products but remain approved for food-contact uses and countless other products.

In this webinar, Katherine O'Brien and Rashmi Joglekar from Earthjustice presented on recent and ongoing failure of the Food and Drug Administration (FDA) to restrict the presence of this class of chemicals from the US food supply, and efforts from advocates to address the problem.

Featured Speakers: Katherine O'Brien, JD, Senior Attorney with Earthjustice's Toxic Exposure and Health Program and **Rashmi Joglekar, PhD**, Staff Scientist with Earthjustice's Toxic Exposure and Health Program, speaking November 16, 2022.

This fact sheet has been created by CHE based on information presented in a CHE Alaska webinar. Selected quotes in bold are from the webinar speaker(s). For the full set of resources provided by the webinar presenters, see the [webinar page](#), where you'll also find associated Slides & Resources.

The Problem

Phthalates are chemicals that are added to plastics to make them more flexible and durable, among other uses. Phthalates leach from plastics into the air, food, and water; as pollutants, phthalates are ubiquitous. One study found that phthalates are in the bodies of 98% of people in the US. Another study found that between 95%–100% of dust particles in homes contained phthalates. The presenters noted some of the health effects that are associated with phthalates:

Phthalates take a toxic toll on our health



Routes of Exposure. Common routes of exposure include inhaling or ingesting contaminated household dust, eating contaminated food, and using personal care products that are formulated to contain phthalates. People can be exposed to different phthalates from many different sources concurrently. These cumulative exposures compound associated health risks. Despite exposure coming from different sources, most people's main exposure is through contaminated food.

Exposure Disparities. Several populations experience significant health disparities related to phthalate exposure.

- Infants and children – This population is more exposed and is particularly vulnerable to phthalate exposure because they are going through critical development periods.
- Black and Latina women – Black women of reproductive age have been shown to bear a 12% higher phthalate body burden than white women. This exposure can lead to adverse reproductive outcomes.
- People of color living in food deserts – Fast food consumption is a driver of phthalate exposure. Those living in areas without alternatives rely on fast food more than those with more food options.
- Arctic Indigenous Peoples – Persistent organic pollutants (POPs) are pervasive in Alaska and the Arctic. Arctic Indigenous Peoples have among the highest chemical contamination on Earth. Phthalates combined with POPs can cause cumulative health effects.

Phthalate Regulation. The legal framework governing phthalates in the US is highly fragmented. Phthalates are regulated in some way by the Food and Drug Administration (FDA), the Environmental Protection Agency (EPA), the Consumer Product Safety Commission (CPSC), and state laws. This fragmentation creates major obstacles to achieving effective regulations. Even within FDA, regulations are fragmented. For example, FDA does not take into account people's exposure to cosmetics and personal care products when evaluating the safety of the same phthalates used in food contact materials.

- FDA is responsible for ensuring the safety of the food supply.
- FDA has a legal duty to *ensure the safety of all food additives*, which includes chemicals used in food-contact materials that are known or expected to migrate into food.
- FDA's safety evaluation must account for the *cumulative effects* of consuming multiple related chemicals.

“FDA has the ability to prohibit the use of these chemicals in any and all food contact applications.”

As of 2016, 28 phthalates were approved by FDA for use in food packaging and processing equipment. These approvals were based on data that was 30-60+ years old. Eight of these approved phthalates had been banned from toys because of health hazards.

In 2016, health and environmental advocates petitioned FDA to revoke all approvals for food-contact use of phthalates. Despite a legal duty to respond to the petitions within six months, FDA took no action for five years. In 2021 advocates sued FDA for failing to act on the petitions. In 2022, FDA denied the petitions without reviewing the decades of new scientific information showing that the phthalates are unsafe. In response, advocates have appealed FDA's decision. FDA did revoke the approval of 19 phthalates based on the industry saying that they no longer use those chemicals.

In 2022:

- 9 phthalates remain FDA-approved for food-contact use.
- 7 of these cause irreversible harm to the developing fetus.
- 4 of these cause irreversible harm to the developing male reproductive tract.
- 3 of these phthalates are banned from toys because of health hazards.

“We know the number one source is food and we have a mechanism to shut it off.”

Unresolved Legal Issues. The fight to protect food from phthalate contamination brings up many unresolved legal issues:

- When and how must FDA reevaluate the safety of phthalates (and other chemicals) approved decades ago?
- How much evidence of hazard and unsafe exposure is required to revoke approval?
- How broadly must FDA define the relevant class of phthalates, and how must FDA accurately assess cumulative effects?
- What role does exposure to phthalates from non-food sources (e.g., cosmetics and personal care products) play in FDA's safety review?
- How long can this process take?

Recommendations

- Ban the use of phthalates in food contact materials. Litigation and administrative advocacy before FDA by Earthjustice and partners is ongoing.
- Ban the use of phthalates at the state level.
- In the next few years, EPA will conduct risk evaluations of phthalates under the Toxic Substances Control Act. This will look principally at non-food use of phthalates. EPA needs to take more steps to limit phthalate exposure.
- The scientific community must increase its engagement with regulatory agencies.

“We’re working to expand scientists’ direct engagement with FDA and other agencies to ensure that their regulatory decisions are informed by the best available science.”

To Get Involved and Find Out More

- We encourage people to participate in ongoing efforts at state-level phthalate bans.
- Watch the November 16, 2022 webinar: [Protecting Brain Development in Children: Phthalates in Food & the Critical Need for Policy Reform](#)
- Read the webinar slides: [Protecting Brain Development in Children](#)
- Read a recent study about phthalates and neurotoxicity in children: [Neurotoxicity of Ortho-Phthalates: Recommendations for Critical Policy Reforms to Protect Brain Development in Children](#)
- Watch our webinar about FDA’s decision to allow the continued use of phthalates in food contact materials: [FDA's Missed Opportunities to Tackle Endocrine Disrupting Chemicals in Food](#)

About the Speakers



Katherine O'Brien, JD, is a Senior Attorney with Earthjustice's Toxic Exposure and Health Program. Prior to this position, Katherine was an attorney in the Northern Rockies regional office for seven years and received her law degree from the University of Washington School of Law in 2012.



Rashmi Joglekar, PhD, is a Staff Scientist with Earthjustice's Toxic Exposure and Health Program and holds a Ph.D. from the Integrated Toxicology and Environmental Health Program at Duke University where she specialized in neurodevelopmental toxicology.